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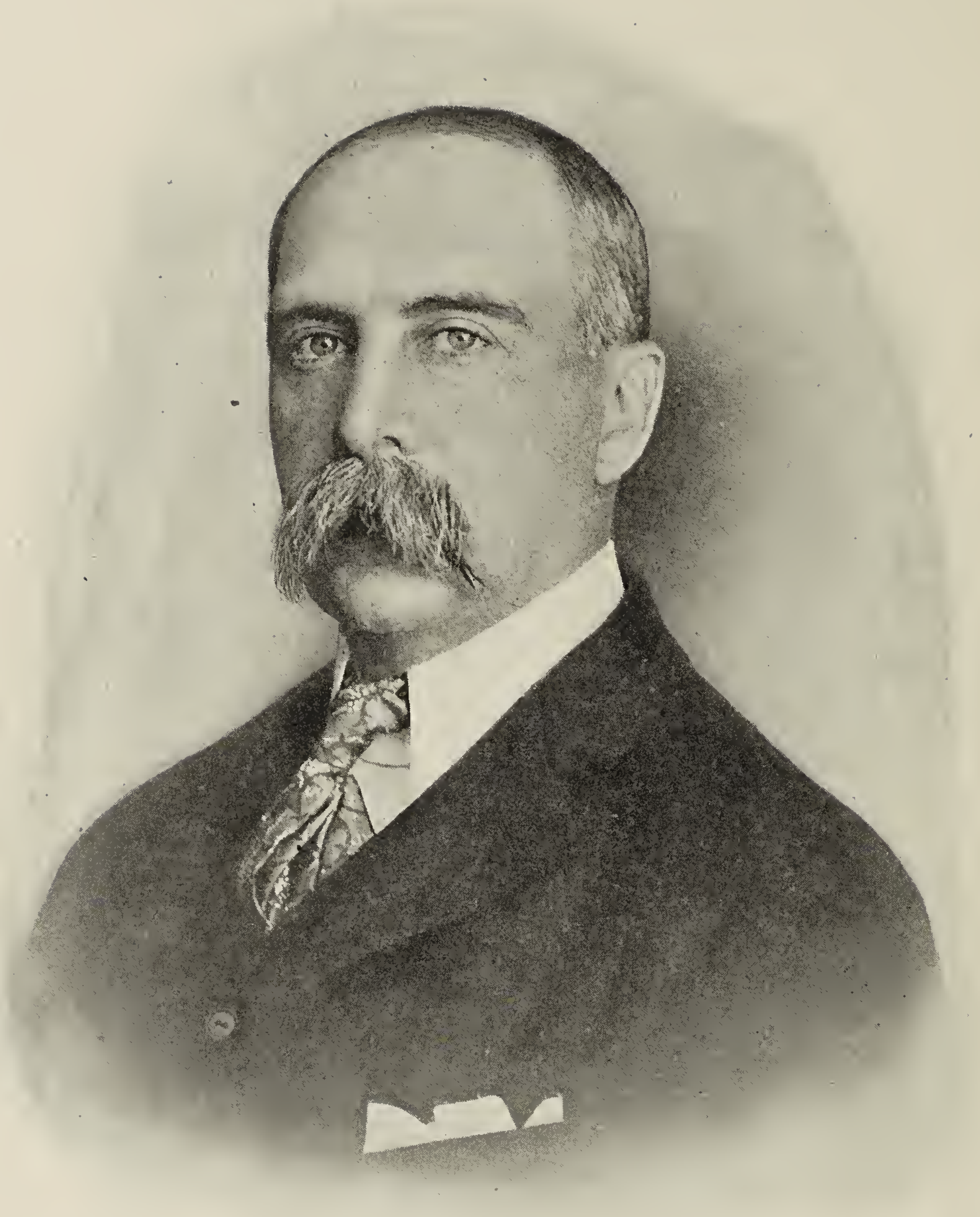

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Original Communications.

HERMANN BREHMER,

AND

THE SEMI-CENTENNIAL CELEBRATION OF BREHMER'S SANATORIUM FOR THE TREATMENT OF CONSUMPTIVES; THE FIRST INSTITUTION OF ITS KIND.

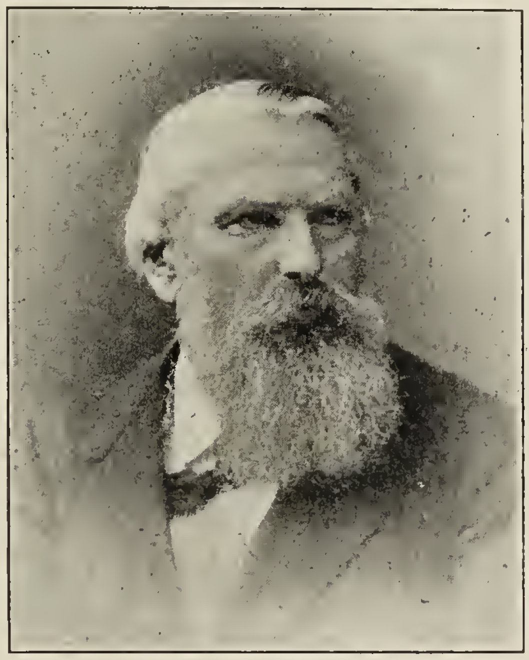
(JULY 2, 1854—JULY 2, 1904.)

By S. A. KNOPF, M. D.,
NEW YORK.

Invitations have been received from Herr Wegener and Frau Wegener, in the name of all the heirs of Hermann Brehmer, to be present on July 2, 1904, at the occasion of the celebration of the fiftieth anniversary of the opening of Brehmer's sanatorium for the treatment of pulmonary tuberculosis, at Goerbersdorf, in Silesia. The programme which accompanies the invitation is very artistically got up, and presents on one side the last picture of Hermann Brehmer, with the dates 1854-1904, and on the other side a picture of the celebrated sanatorium in Goerbersdorf.

To the medical profession at large, but particularly to those of us interested in the tuberculosis problem, this anniversary is full of meaning, and I believe that a fitting tribute to the founder of the first sanatorium in the world for the exclusive treatment of patients afflicted with pulmonary tuberculosis and the best known promulgator of modern phthisiotherapy may well be paid on this occasion from this side of the Atlantic. America and the civilized world at large owe a great deal to Hermann Brehmer, and it is but right that the younger generation should know a little more of the man who, more than anybody else, has demonstrated the curability of pulmonary tuberculosis and instituted the most rational and most successful treatment.

Hermann Brehmer was born in Kurtsch, Province of Silesia, Prussia, August 4, 1826. He attended the Elisabeth Gymnasium in Breslau, and after receiving his classical degree went to the universities of Breslau and Berlin, studying natural philosophy and mathematics. Johannes Müller, the great physiologist, was at that time lecturing in Berlin, and Brehmer was so attracted by these lectures that he decided to study medicine instead of mathematics. After finally graduating in medicine he began to practise in the little village of Goerbersdorf which, at that time, had no more than 900 inhabitants.



HERMANN BREHMER.

It was already his intention to establish an institution for the exclusive treatment of consumptives. His thesis for the final degree is characteristic of his conviction and optimism concerning the curability of tuberculosis in the earlier stages of the disease. It was published in 1853, and its title was "De legibus ad initium atque progressum tuberculosis pulmonum spectantibus."

The Prussian government at that time did not encourage Brehmer's scheme to establish a sanatorium for consumptives, and he could not get the official authorization to open his "Heilanstalt." It is hardly possible that this was due to an official phthisiophobia, but I am inclined to to believe that his very democratic ideas, which were not favorably looked upon by the Prussian government, were the real hindrance to the carrying out of his beautiful project. Fortunately for Brehmer, he had two powerful friends—Hum-

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boldt and Schoenlein. Thanks to their intervention, he finally received the concession to build his sanatorium. It had naturally a small beginning, but the success of the institution was marvellous. In 1862 he was able to enlarge the institution considerably, and to-day it is the largest private institution of its kind in the world. It has now a division for the well-to-do, one for the middle classes and one for the poor, and can accommodate about 300 patients.

While Brehmer's conception of the ætiology of consumption and his views on therapeutics and climatology have been somewhat modified by his pupils and followers, among whom we must mention as the most distinguished, the late Geheimrath Dettweiler, it is nevertheless of great historical interest to know just what Brehmer thought of the causes and treatment of tuberculosis. In his pathological studies he had observed the fact that in a great majority of the bodies of consumptives which came to autopsies there was an abnormal proportion in the size of heart and lungs. He found the lungs large, while the heart was unusually small, with thin, relaxed, and weak muscular walls. Nobody, up to this time, had thought of considering these abnormal proportions of the thoracic viscera as of any ætiological importance. Brehmer reasoned that the small and weak heart ultimately led to a diminished circulation and a subsequently disturbed nutrition of pulmonary tissue. As a consequence of his logic he recommended high altitudes as a factor in the treatment of tuberculosis, since a diminished atmospheric pressure demands an increase of heart action and a subsequent increase of metabolism. He ascribed the relative freedom from phthisis among the people living in mountainous districts to this condition of higher pulse rate and stronger heart. His studies of the geographical distribution seemed to confirm his conclusions in this respect. He studied, however, also the mode of life of certain classes of people, relatively free from phthisis, in lowlands, and learned that an increased bodily exercise, under proper hygienic and dietetic conditions, was also a reason of relative freedom from phthisis among certain people, though they might live in ordinary altitudes. Brehmer's therapy was, therefore, to treat his patients in an altitude in which he thought man would be immune from phthisis because of diminished atmospheric pressure and its result on the thoracic viscera; and, secondly, to supply his patients with rich food, particularly milk, and also some alcohol, combined with physical exercise, under constant medical supervision—all with the same point in view, i. e., to strengthen the heart, improve pulmonary and general circulation and nutrition, and bring about an increased metabolism.

We know that Brehmer's theory of the immune zones in high altitudes cannot be absolutely accepted. We have also learned from his celebrated pupil, Peter Dettweiler, that the rest cure is fully as important in pulmonary tuberculosis as is judicious exercise. Furthermore, the experiences of the past years have shown that the sanatorium treatment at sea level, in a pure atmosphere, can be carried out as successfully as in higher altitudes. But all this does not detract from the value of Brehmer's work, nor does it diminish the gratitude which the medical profession and humanity at large owe him. He was the founder of the first sanatorium for consumptives, and he has restored thousands to health who, under the ordinary treatment in vogue at that time, would certainly have fallen victims to the disease.

The hygiene practised by Brehmer in his sanatorium, particularly that portion appertaining to the prevention of tuberculosis, bore unusual fruits. It demonstrated for the first time that in a sanatorium for consumptives, properly equipped and properly managed, one was safer from contracting tuberculosis than anywhere else. It demonstrated further (and this is a lesson which our phthisiophobics may well take note of) that a sanatorium under proper medical supervision was not a danger to the neighborhood, but a blessing. To-day, there are in Goerbersdorf five of the most flourishing sanatoria—2 Brehmer's, 2 Weicker's, 1 Römpler's—accommodating from 600 to 700 patients. And what has been the result on the mortality from tuberculosis among the people living, not in the sanatoria, but in the village which surrounds these healing institutions? The mortality has been reduced among them to one third of what it used to be before the establishment of these institutions. This reduction in the mortality from tuberculosis among the villagers must be ascribed to the conscious or unconscious imitation of the cleanly habits which the inmates of the sanatoria are obliged to practise. But the presence of the sanatoria in Goerbersdorf has not only been a blessing to the village in a sanitary respect, it has also benefited in an economic way. The village is now one of the most prosperous in Germany, and has more than tripled its population since 1854.

Brehmer's literary contributions were not very voluminous, but what he wrote was of great value. I will mention here only three of his most

OCT 8 - 19..
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important publications. Besides his doctorate thesis, above referred to, he published Die Gesetze und Heilbarkeit der chronischen Tuberkulose der Lunge; Die chronische Lungenschwindsucht, ihre Ursache und ihre Wirkung; Mittheilungen aus Dr. Brehmer's Heilanstalt für Lungenkranke. The latter was his last work; it appeared in May, 1889, in Wiesbaden, and also contains contributions by his four assistants, Wendriner, Stachiewicz, Stroschein, and Wisokowics.

Brehmer died on the 12th of December, 1889, mourned by thousands of grateful patients, honored and esteemed by the profession, and venerated by the inhabitants of Goerbersdorf, to whose prosperity he had contributed so much. Those of the German population who knew nothing of the personality and inner life of Brehmer wondered that so great a physician never received any recognition from the government, by either title or decoration, which means so much in Germany. His independent and democratic views, which at the beginning of his career almost prevented him from carrying out his most cherished plans, were also the cause of the non-recognition of his great services on the part of the government. A beautiful monument to Brehmer, recently erected in front of the park leading to the sanatorium, toward which patients and physicians from all over the world contributed, shows the gratitude of the people, though the government ignored his valuable services and the renown he brought to German medicine and to Germany.

The Brehmer Sanatorium at Goerbersdorf.

Brehmer was a striking personality. He was a typical sanatorium physician, imposing, energetic, with a beautiful head on broad shoulders and a patriarchal beard. He knew how to inspire his patients with implicit confidence. The photograph we reproduce here was taken shortly before his death. Some have accused him of too vigorous discipline and brusqueness. I may, in his defense, use the words of Flügge when, at the time of Brehmer's death, he wrote: "Allzeit liebenswürdige, formgewandte Menschen haben noch niemals eine solche Titanenarbeit geleistet wie sie den Inhalt von Brehmer's Leben bildet" (People, always charming and polite, have never yet accomplished such titanic labors as are represented in the life of Brehmer).

Under the seemingly brusque exterior, Brehmer was a true friend, an ideal physician, and a great and good man. He died when the sanatorium movement was hardly in its infancy. At the time of his death there were three sanatoria in Germany; there are hundreds of them now, and not only for the rich, but for the moderately and absolutely poor as well. And in our own country, according to the latest statistics which I have been able to gather, there are now 135 institutions already in operation or projected, and all devoted to the exclusive treatment of tuberculosis. While Brehmer was privileged to see the financial success of his own enterprise, his ardent desire—the multiplicity of sanatoria for all classes of society—he was not privileged to see realized.

Let the present generation of American physicians to-day, at the fiftieth anniversary of the establishment of the first healing institution for the consumptive sufferers, give a grateful thought in memory to its founder, Hermann Brehmer.

16 West Ninety-fifth Street.

X RAY THERAPEUTICS.*

By G. H. STOVER, M. D.,
DENVER, COLO.,
LECTURER ON ELECTROTHERAPEUTICS AND RADIOLOGY, DENVER-GROSS MEDICAL COLLEGE; RADIOLOGIST TO ST. JOSEPH'S HOSPITAL.

Before I speak in a general way upon my subject I shall briefly relate a few cases, which shall in part indicate the main features of the work that is being done with the x ray.

Case I.—Mrs. S., aged seventy-eight years. Referred by Dr. D. H. Coover. No family history of cancer. Six years ago there appeared a lump at internal canthus of the right eye; for some time there was but little change in it, but after three years a decided increase in size began; two months previous to the time that I saw her there appeared an ulceration; when she consulted me there was a typical rodent ulcer. Under treatment there was a rapid healing of the ulcer, followed by a diminution in the amount of induration; after forty-five exposures had been made, most of the induration had gone; I did not feel sure that what was left was cancerous, but thought it might perhaps be fibrous, so no exposures were made for a period of two months; at the end of that time there was beginning a breaking down of the indurated area and treatment was resumed.

Case II.—Major W. Referred by Dr. Richardson. In 1883, an ulcer appeared upon the ala of the right nostril; this was removed surgically; in 1886, there was a recurrence which was treated by the application of plasters; in 1890, there was another recurrence, and this was also removed by the use of plasters; in 1898, another recurrence, and plasters used again. After the last treatment by plasters, fifteen x ray treatments were given. When this patient consulted me the whole ala of the nose on the right side was gone, there was ulceration on the floor and walls of the nostril, extending up under the cheek, there was a fistulous communication from the nostril to the mouth under the upper lip, and a large induration beneath the right eye; certainly not a very promising case, and apparently one of a good deal of malignancy from the number of recurrences. After seventy-one exposures the fistula under the lip healed, the induration beneath the eye diminished about one half, and the interior of the nostril was much improved; treatments were not given so regularly nor so vigorously for a time, with the result that there has been a relapse; ulceration has again appeared in the nostril and the fistula under the lip has reopened; this patient is receiving application of radium now, but I shall resume the use of the x ray shortly; I have by no means given up hope for him, but I really think he will ultimately recover.

Case III.—Miss J. Referred by Dr. Rogers and Dr. Freeman. No family history of cancer. Her disease began as Paget's disease of the nipple, which always becomes cancerous, about two years before I saw her. There was a great deal of pigmentation around the nipple and the whole nipple and part of the surrounding skin were ulcerated. Beneath this was a hard flat mass about the size of a twenty-five cent piece, firm and unyielding; there was an enlarged gland under the edge of the pectoralis major. I discouraged treatment by the x ray or in any other manner except surgically, as had her other physicians, but the patient decidedly refused to consider it, so I then consented to apply the ray. The result has been most gratifying. After five treatments the ulcerated area was covered with good skin; the pigment began to disappear and has now almost entirely gone; the induration has been melting away and is now considerably more than half gone; after thirty-five exposures the enlarged gland could no longer be found. One hundred and thirty-one exposures have been made in all. The weight of this patient at the beginning of treatment was 130 pounds; it is now 146¾ pounds.

Case IV.—G. E. R. Referred by Dr. Kemble and Dr. Lawney. This patient had been operated on by Dr. Parkhill for epithelioma of each cheek, and there was recurrence on the right side when I saw him. Fifty-four exposures did away with this, but a small spot appeared in another part of the scar, which yielded to a few exposures. Later, a recurrence appeared in the scar on the left side, which was successfully removed by seventeen exposures. On the right side there was another recurrence in a remote part of the scar and a part which had not been previously exposed to the ray; twelve exposures have practically caused this to disappear.

Case V.—Patrick S. Referred by Dr. Carlin. Epithelioma of lower lip, about ten millimetres in diameter; practically no induration beneath it; fifteen exposures produced a normal appearance and feel of the lip, though a few more exposures were made as a precautionary measure.

Case VI.—J. B. L. Referred by Dr. Edward Jackson. Three years ago a mole on the side of the nose near the internal canthus of the left eye took on malignancy and was excised by Dr. Le Mond; this grew again in three months and another smaller one appeared near it; this patient received twenty-six x ray treatments in all; after the twenty-second exposure nothing was to be seen of the growths. During the treatment of this case there was never even an erythema produced.

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* Presented to the Salt Lake meeting of the Rocky Mountain Inter-State Medical Association, August, 1903.

Case VII.—Mrs. J. G. S. No family history of cancer. Six years ago a small sore was noticd in the skin of the upper outer quadrant of the right breast; when I first saw her there was an epithelioma, 27 mm. long by 8 mm. wide, accompanied by disinct induration. After the twenty-seventh exposure the ulcer was entirely healed, and after thirty-nine exposures the induration was gone.

Case VIII.—Mrs. A. Referred by Dr. Carlin. This patient had been treated by another physician, by x ray, for epithelioma of the lower lip; she stated that she had been nearly well when the doctor sent for her and split her lip with a scalpel; when I saw her, a short time after this had been done, there was an epithelioma about an inch in diameter, deeply excavated and with angry looking edges. The physician explained to me later that he had split the lip so as to let the x ray in more readily. I made eleven exposures with the result that most of the area showed improvement. Then for two months no exposures were made, because the patient's daughter, who had been accompanying her to the office, became ill; the patient was an Italian woman and could not trust herself to find the way alone. When I next saw her the case was hopeless and in a truly terrible condition. The growth had involved the whole lower lip, and at each side was a wing of cancerous tissue projecting more than half an inch beyond the angles of the mouth; the glands of the neck and under the lower jaw were all very large. I stated to her daughter that I could do nothing, but at her request gave a few more treatments; the patient was growing weaker all the time and was soon unable to come to the office.

Case IX.—C. P. R. Thirteen years ago, had a sore on the lower lip which spontaneously disappeared after some time. Three months ago an ulcer appeared, accompanied by induration, and soon another was found close beside it and almost a part of it; after fifteen exposures the large sore had healed and the induration was softened, and shortly after this the smaller sore was also healed; after thirty exposures the induration was gone; there was left a small pin head spot of yellowish, stiff, mucous membrane, thinner than tissue paper. I do not know what it is, but so far it has given no signs of trouble.

Case X.—Mrs. L. Referred by Dr. Sharpley. This was an aged lady who had a senile wart on the right cheek and another on the forehead; there were none on her back, as is common in this affection. Both had become epitheliomatous when I saw her. Fifteen exposures healed the disease on the cheek, and after twenty-three exposures the one on her forehead was well.

Case XI.—Mrs. N. Referred by Dr. Carlin. For two years has had an epithelioma of the cutaneous portion of the upper lip on the right side; it was covered by heavy crust, which after fifteen exposures had disappeared, leaving the ulcer covered by healthy skin, but somewhat thickened and elevated above the surrounding skin. Thirty-six exposures have greatly diminished the amount of this thickening.

Case XII.—P. A. P. Aged eighty-one years. Referred by Dr. Carlin. Two years ago the lower lip became sore, and when I saw him there was a large epithelioma with a good deal of induration. After nine exposures the sore was covered by apparently healthy skin and after twenty-nine treatments had been given the patient was discharged as cured.

Case XIII.—W. F. McC. Referred by Dr. Van Zant. For many years this man has had a sore spot on the lower lip. Fourteen months ago, a triangle of the lower lip was removed by a leading surgeon of Pueblo. Six months ago, a recurrence took place; at the time I first saw him, there was a large epithelioma three fourths of an inch long and one fourth of an inch wide, with well marked induration; after twelve exposures had been made there was a discharge of purulent matter, after which the induration rapidly subsided and after eighteen exposures a cure was apparent.

Case XIV.—Mrs. H., aged fifty-three years. Carcinoma at base of bladder. Referred by Dr. Bagot. No family history of cancer. For two years has been having occasional profuse hæmorrhages from the bladder. A nodule could be plainly felt at the neck of the bladder. Thirty-four exposures were made through the abdominal wall. Then forty-six exposures were made, with the patient on her back upon an operating table, in the position assumed for gynæcological treatments; an aluminum speculum was inserted into the vagina. For a time this patient seemed to be improving; her appetite grew better, her general strength increased, her yellow color grew very much less and almost disappeared; the greatest change was in the pain and discharge. Relief from pain was very great; for a long time she was entirely free from it; there were no more hæmorrhages, and the former discharge entirely ceased; yet there was no diminution in the size of the tumor, I believe, though for a time I thought it had shrunk a little. But after a while it was apparent that it was increasing in size, though for quite a period her general condition did not fail. In time the hæmorrhages began to reappear, there were occasional periods of obstruction of the urethra making it necessary for Dr. Bagot to dilate it; her digestion became seriously disordered and perhaps there was a metastasis to the stomach; there was a gradual failure and a fatal issue.

Case XV.—Mrs. E. K. B. Referred by Dr. Edward Jackson. In this case a carcinoma had developed about four years previous to the time that I saw her, in the tissues beneath the internal canthus of the right eye. Dr. Jackson removed this, but there was a recurrence. At the time she was sent to me there was a growth the size of a pea projecting between the eyelids, and an induratd mass beneath the skin near the internal canthus; after thirteen exposures the projecting growth had lost two thirds of its volume; after twenty-two exposures it was gone; after fifty-eight treatments the patient was discharged; for some time previous to this I had been unable to detect anything abnormal in the tissues, but the patient did not wish to stop treatment too soon.

CASE XVI.—Mr. M. Referred by Dr. Levy. This was a case of carcinoma of the larynx; the involvement was so great that operation was out of the question, so Dr. Levy did a tracheotomy and placed a tube in the trachea, to be worn permanently. This patient received but three treatments; he stated that he had less pain, but did not return for further treatment. He died some time later.

CASE XVII.—P. McD. Referred by Dr. Hupp. Six years ago a tooth in the right side of the lower jaw was extracted; this gave considerable trouble, and, later, a piece of bone was removed. In January, 1902, he noticed a painful lump forming in the lower jaw. At the time I saw him, in September, 1902, there was a large growth involving the whole right side of the lower jaw and extending into the fauces and soft palate; the case was shown to Dr. Freeman, who decided it to be inoperable and recommended a trial of the x ray; thirty-nine exposures were made, with only moderate benefit, part of the growth diminishing somewhat in size. The patient's greatest suffering was from pain in the facial nerve; he was persuaded by a relative to go to an Eastern "cancer doctor," where a plaster was applied to the skin of the cheek and was to eat its way into the tumor. I have been unable to learn anything of the progress of the case.

CASE XVIII.—Miss J. Referred by Dr. Craig. Had been operated on for the removal of carcinoma of the left breast. She was sent to me for a course of prophylactic treatment. I believe the exposures were not made often enough; at any rate, there was a recurrence, and it was found necessary to operate again, removing the pectoralis minor and some more glands. At the present time there is a bare space on the breast, where skin grafting had been only partly successful, which is the seat of extensive involvement, and I am vigorously raying this; I do not consider this a hopeless case.

CASE XIX.—Mrs. Van B. Referred by Dr. Freeman. Carcinoma of the right breast had existed some five or six years, when it was removed by the complete operation, by Dr. Freeman. This was in June, 1902; a course of prophylactic exposures was given; up to this time there has been no recurrence.

CASE XX.—Mr. G. Referred by Dr. Gallaher and Dr. Coover. Carcinoma beginning in the mouth and involving the glands on both sides of the neck. This patient had received a number of x ray exposures from a general practitioner before I saw him, and a marked dermatitis had been set up; when this subsided I began treatment, stating to his family that it was probably a hopeless case, on account of the amount of glandular involvement and the fact that he could not chew solid food because he could not open his mouth, neither could he swallow without great pain on account of the ulceration in the throat, which had even eaten away a part of the soft palate. Some 150 exposures were made upon each side; some of the glands disappeared, others were for a time prevented from growing, but in time they took on activity, possibly because the nutrition of the patient could not be kept up. The pain in the glands disappeared, but there was a great deal of pain in the facial nerve, which the treatment did not affect. A fistula connected with a salivary gland formed on the right side. During all these treatments there was no more dermatitis, but the skin simply became tanned. This patient died from failure of nutrition, primarily.

CASE XXI.—G. E. W. Referred by Dr. Richmond. Mother died of uterine cancer. Patient was injured in an elevator accident some five months previously to the time that I saw him. A short time after this accident a cancer developed in the left side of the neck, the fauces on that side being ulcerated, and the glands of the neck extensively involved, and his general condition was one of great weakness; he was tormented by constant pain in the facial nerve. He received about 100 exposures; the pain in the glands themselves was entirely relieved; some of the glands disappeared; one large one broke down and discharged externally. There had seemed to be for a time some improvement in the whole condition, but this proved only temporary and the patient finally succumbed.

CASE XXII.—Reverend C. Referred by Dr. Freeman. This patient had been operated on by Dr. Freeman, who removed a number of glands from the left side of the neck; there was a fresh growth of glands in that locality and the patient had been taking x ray treatment in Texas; there was a severe dermatitis at the time I first saw him, but he was so desirous of going ahead with the treatment that I went on as cautiously as possible. There was no increase in the dermatitis, but all the hair, or nearly all of it, came out from that side of the head. A few of the smaller glands seemed to become less in size, but there was no real benefit from the treatments, which were discontinued after fifteen exposures had been made.

CASE XXIII.—John P. Referred by Dr. Craig. Sarcoma of clavicle and extending into mediastinum. Dr. Craig removed the entire clavicle, with the remarkable result that the patient has full function of the arm. There was a recurrence, which was treated by the x ray, and after twenty-nine exposures there was an apparent cure, though some more exposures were made as a precautionary measure.

CASE XXIV.—Miss A. Referred by Dr. Craig. Two years ago tuberculosis had developed in the lymphatic glands on the right side of the neck; suppuration occurred, and Dr. Craig opened and drained, but other glands had not advanced to suppuration and remained. This patient was a frail girl, under weight, her digestion so seriously disturbed that she vomited at the slightest provocation or without any, could retain hardly any of her food and could take no medicine at all; she has been under the care of most of the leading physicians of Denver at different times during the past several years. In addition to her physical weakness, she has the sole care of a mother who is completely helpless from softening of the brain, and owing to the financial circumstances of the family is compelled to attend to household duties and care for her mother without assistance.

She had a menstrual flow every two weeks, so profuse at times that it amounted to a menorrhagia, and during the first few weeks that she came to me I think she fainted every time that she came to the office. There was pain amounting to a true hyperæsthesia of the affected side of the neck, chest, and arm, on the affected side, and the tissue of the breast was hard and very tender. I did not think that the breast was tuberculous, but Dr. Craig was inclined to disagree with this opinion. This patient received sixty-two x ray exposures of the neck and breast, and was also given a static insulation electrical treatment at each visit. The neck has steadily improved, the discharge from the point of suppuration has long since ceased, and while there is still a gland or two larger than normal, there is no active process going on and there is no pain; the pain in the arm and breast has greatly improved; the tenderness in the breast is relieved more by applications of the violet ray than by the x ray. She hardly ever vomits any more, eats fairly well, and retains what she eats. Her weight has increased, her menstruation has become normal in frequency and in quantity of flow, which I attribute partly to the static electricity and partly to the gain in general health. In the past she has always lost heavily in weight and suffered from a severe cough in the summer; during the past summer she has lost but little in weight, still weighing more than when I began treatment, and her cough has troubled her but little compared to past experience.

Case XXV.—Miss P. Referred by Dr. Hawkins. Tuberculosis of the sternum. Has had a number of operations during the last five years; none of them stopped the trouble for very long; the discharge seemed to come through an opening in the sternum from a suppurating focus behind that bone. She was given fifty-seven treatments, the last being on April 17, 1903, and up to the present time there has been no return of the trouble.

Case XXVI.—C. L. L. Examined by Dr. Melville Black, who reported a tuberculous infiltration of the mucous membrane of the larynx, swelling of the arytenoids, etc. This patient is yet under treatment. He has times in which, for a few sentences, or even for an hour, he speaks in a fairly good voice. His cough is much less, and he does not wake up in the night and cough, which was a constant and very annoying symptom before beginning the x ray treatment.

Case XXVII.—Helen G. Referred by Dr. Black, of Pueblo. This patient was a young girl, who, at the age of three years, had an attack of meningitis which left her with a paralysis of some of the ocular muscles and a defect in speech. A year previous to the time I saw her, she received an injury to the right shin; a few weeks later the leg was much swollen and soon there appeared sinuses discharging pus. Dr. Black operated, curetting out the diseased tissue as thoroughly as possible, but the sinuses persisted, and there were large areas of ulceration surrounding them; eleven exposures to the x ray were followed by complete healing.

Case XXVIII.—Miss M. C. Referred by Dr. Van Meter. If this was not a true case of tuberculosis of the glands of the neck it was what was, in former times, called " King's evil " or scrofula. About five years ago she had *la grippe* and the glands on the right side of the neck became enlarged, but under Dr. Van Meter's treatment they became somewhat smaller. Later, the glands on the left side of the neck became enormously enlarged, there being a mass there almost as large as my fist, at times discharging pus from several openings; there were also a number of considerably enlarged glands beneath the lower jaw. There has been a continuous improvement under x ray treatment, the right side being nearly well and the mass on the left side is about half as large as it was on beginning the exposures.

Case XXIX.—V. E. Came to Colorado on account of incipient lung trouble. While here the right testicle became the seat of tuberculous disease; he received fourteen treatments, at the end of which the swelling was less, and part of the induration of the epididymis was softening and being absorbed. He became homesick and returned to New York, so I was unable to make further trial.

Case XXX.—C. E. Y. Acne vulgaris since childhood, affecting the face and neck. After twenty-six treatments had been given the patient had to return to his home in Michigan, but he was much improvd.

Case XXXI.—Miss C. Referred by Dr. Harvey. Acne affecting cheeks, chin, and forehead, of several years' duration. Thirteen treatments brought about an apparent cure.

Case XXXII.—Mrs. McC. Acne vulgaris since girlhood. Ten treatments had her well on the way to recovery, but she insisted on postponing the remainder of the treatment on account of financial reasons.

Case XXXIII.—Miss K. Referred by Dr. Grant. Acne papulosum of two years' duration. Improvement in this case was rather slow until I intentionally produced a well developed erythema, after which recovery was rapid. She received eighteen treatments in all.

Case XXXIV.—Carl J. Referred by Dr. Freeman. Had mumps in 1901, followed by permanent enlargement of the glands of the right side of the neck; it is a question how much connection there is between these two occurrences. At any rate, the condition was well marked Hodgkin's disease. Dr. Freeman operated and removed the mass, in 1902, but later there was a return; the boy was treated by another physician, who made twenty-one x ray exposures, with practically no effect on the tumors; I gave twenty treatments, without any real benefit, and Dr. Freeman operated again. I learn that there is now appearing another mass in the same location. I am of the opinion, in view of my own experience in other cases, and of the reports that come to me from others in the treatment of this condition by the x ray, that it would be worth while to attempt another course of x ray treatment in this case.

CASE XXXV.—Mrs. P. One year and a half ago a lump appeared on the left side of the neck; this grew slowly and others followed. At the time I saw her there was a chain of glands extending down to the clavicle, associated with the peculiar puffy appearance of the skin that I have seen in a number of cases of Hodgkin's disease. This patient received eight treatments with decided benefit; then she went East for a visit, promising to continue the treatment while away. She was absent for three months, and on her return told me that she had taken no treatments while away, with the result that her neck was paining her and had somewhat increased in size again. She took four more treatments at such irregular intervals that benefit was out of the question, and then did not return.

CASE XXXVI.—Mrs. A. Referred by Dr. Freeman. Hodgkin's disease, the mass of glands being on the left side of the neck. After eighteen exposures, all the glands, save one, had disappeared, and as this one seemed refractory I asked Dr. Freeman to remove it, which he did. Some time later an enlarged gland appeared toward the back of the neck at a point where the skin had been protected from the ray during the exposures. A moderate number of exposures sufficed to reduce it in size, but it had not disappeared when I last saw her a few months ago.

CASE XXXVII.—L. R. W. Referred by Dr. Freeman. Hodgkin's disease, in which there was a large mass of glands on the left side of the neck. Fourteen treatments were given, by which time the patient could wear his collar easily, which had not been possible for a long time previously. As he was unable to secure a remunerative position in Denver he left the city.

CASE XXXVIII.—J. B. Referred by Dr. McNaught and Dr. Sewall; a remarkable example of Hodgkin's disease. There were masses larger than my fist on each side of the neck and another as large as these under the chin; the pressure from this mass was so serious as to interfere at times with respiration. In addition to these there were masses the size of a hen's egg in each axilla and each groin. The neck measurement was twenty inches and a quarter. After six treatments the swellings in the neck were gone, and after twelve treatments had been given, all the swellings had disappeared. Then the patient developed an exhausting diarrhœa, which proved fatal after a time. At the autopsy the intestinal walls were found to be friable in places, and at several points there were apparently large ulcrs which had perforated. Dr. Sewall asked if it were not possible that the ray had caused the ulcers in the already diseased intestinal walls, but I do not believe this to have been possible.

CASE XXXIX.—Mrs. G. Lupus of forehead, present most of the time for twenty years. Cautery, plasters, excision, all had failed in producing a cure; after sixteen exposures the ulcer was nicely healed.

CASE XL.—Mrs. B. Nine years ago had lupus on the end of the nose, part of the tip of the nose ulcerating to such an extent that the end of the nose was destroyed in a space half an inch in diameter. This is now well healed, but lupus appeared in the skin on the bridge of the nose; twenty exposures caused this to disappear entirely. A suspicious spot came to view on the right cheek; this I treated with the Finsen ray from the London Hospital lamp, and a very few applications drove it away.

CASE XLI.—Mr. S. Large lupus ulceration of the skin of the right leg below the knee. Twenty exposures were successful in healing it.

CASE XLII.—Mrs. C. S. Referred by Dr. Coover. Lupus hypertrophicus. A growth on the tip of the nose, of the size, and very much the appearance, of a strawberry, had been present for about two years, beginning as a small pimple. Fifteen treatments caused its total disappearance, leaving the base covered with healthy skin; at the edges of the base of this growth, or where it had been, there was left a most peculiar appearance of the skin, in the shape of a regular frill about one eighth of an inch wide; I made several x ray exposures, which removed a little of it, but caustic was used to take off the remainder.

CASE XLIII.—H. L. Referred by Dr. Munn and Dr. Coover. Lupus erythematosus of face; typical butterfly outlines. Sixteen treatments were given, at the end of which the patient had to return to his home in another State, improved but not cured.

CASE XLIV.—Miss J. Some time ago this patient stuck a needle into the ring finger of her left hand at the base of the nail; a chronic swelling appeared there, which, on opening, proved to be filled with a gelatinous fluid, which returned several times after incisions were made. A dozen or so x ray exposures did away with it entirely.

CASE XLV.—Miss G. Referred by Dr. Freeman. Adenoma of the tonsil. Three years ago, had scarlet fever, with a very bad throat; after this the tonsil and surrounding tissues remained much enlarged and very painful, and the growth seemed to be increasing. Dr. Freeman operated in 1901, but the growth recurred. Thirty-five exposures were made; the anterior portions of the growth were made smaller and the general outline seemed to shrink, as if some infiltration around the true growth had been removed. Dr. Freeman then operated again, in January, 1903, and up to the present time there have been no signs of recurrence. A microscopical examination of the growth removed at the first operation was made, and the pathologist reported that it was not malignant; an examination of tissue removed at the second operation was reported, by another pathologist, to show sarcoma, so that there is some doubt as to the real condition, though I must say that the fact of recurrence has a suspicious look.

CASE XLVI.—Mrs. J. Referred by Dr. Hawkins and Dr. Kindig. Eight years ago this patient had what appeared to be a carbuncle at the entrance of the vagina; it grew in size, was very painful and would often bleed, so the tissue was removed by thorough curetting. Recurrence took place, and the patient was sent to me with a diagnosis of either lupus or cancer. I gave twenty x ray treatments, using an aluminum speculum and an ordinary Crookes tube, as I could not at that time find a vaginal tube on the market, and, indeed, the first tubes of this kind that I obtained had to be made to my order. The treatment in this case had no effect; the growth increased steadily all the time.

Case XLVII.—T. E. J. Injured the end of the index finger of the left hand; instead of healing normally, an overgrowth of granulation tissue took place, being what was formerly called "proud flesh," which became as large as a good sized pea. Three exposures to the x ray caused it to dessicate and drop off.

Case XLVIII.—J. A. M. Referred by Dr. Lyman and Dr. Blaine. In childhood had "scrofula," leaving sinuses which discharged for many years; then crusts began to appear on the skin, and finally ulceration began, resulting in an ulcer about three inches in diameter, somewhat excavated, with raised and thickened skin edges; the floor of the ulcer was covered by large and small raw loking papillæ of a rather yellowish color, discharging a purulent fluid, not in any quantity. After twenty-seven x ray exposures I decided that no effect was being produced, so I made a few applications of the ultraviolet ray, then advised operation, which was performed by Dr. Lyman, who excised the diseased tissue and grafted skin over the denuded surface. I have been unable to learn the further history of the case.

Case XLIX.—S. C. C. Had had his leg amputated below the knee, and had suffered from neuritis in the stump ever since. A second operation was done, removing the clubbed ends of some nerves, but without relieving the pain. This patient had used a good deal of morphine at one time, but asserted that he had discontinued its use entirely; I could not tell how much of his pain was the cry of his subconscious self for morphine, how much of it was feigned in the hope that after all sorts of treatment had been tried and found useless, he might be advised to return to the drug, or how much of it was real pain. He came for only two or three exposures, and then stopped, saying that he was no better, which was to be expected.

Case L.—Mrs. F. G. P. Referred by Dr. C. K. Fleming. Kraurosis vulvæ. This case has already been reported in the *New York Medical Journal*. The disease involved the labia minora and was extremely painful; it was desired to try the x ray as a last resort prior to operation. One exposure was given; that evening the patient sent for Dr. Fleming, who found her in great pain, and on examination discovered that the diseased part was greatly swollen, very red, and œdematous; in fact, had much the appearance of erysipelas. I cannot conceive of one application of the ray causing a dermatitis of this extent, but of course I have had no experience with other cases of this disease, and this is the first case in which I have heard of the x ray being applied therefor. Before coming to the office the patient had carefully removed all the emollient that she had been applying, so perhaps the mechanical violence done during its removal may have had something to do with the complication.

Case LI.—G. N. M. Furunculosis of neck. Has been a sufferer from this annoying disease for years. No diabetes. He received twelve exposures; after the tenth, when almost well, upon my advice he began the use of brewer's yeast internally, and I believe has had no return of the trouble.

I think that lupus erythematosus is more slowly amenable to treatment by the x ray than are the other forms of lupus; I am using the ultraviolet ray in the treatment of lupus more and more as time goes on, yet, at the present time, I am unable to say that I prefer one over the other; with the later modifications of Finsen's apparatus, the time of exposure has been very much shortened and the machine itself made much less cumbersome. With either of my Finsen lights I can produce an erythema in from ten to fifteen minutes.

So uniform has been my success and that of others in the treatment of epithelioma that I believe the x ray is a specific for this condition; it is a better treatment than the knife or caustic, in that it does not destroy healthy tissue and the final cosmetic effect is infinitely better. I cannot believe that recurrence is any more frequent after treatment by x ray than by other methods; on the contrary, my opinion is that recurrences will be found less often after the x ray; and if there is a recurrence the ray can be again applied and it is not necessary to sacrifice tissue that can perhaps ill be spared.

In carcinoma the results are not so gratifying, particularly in those cases where the disease is deep seated; perhaps this is because these cases are usually far advanced when they are discovered; for the treatment of cancer of the uterus and vagina, bladder, and rectum, we now have tubes that may be placed in contact with the lesion.

I cannot understand why we cannot do so much for internal cancer as we can for epithelioma of the skin, other things being equal; and I am of the belief that the time will probably come when the results of x ray treatment of deep seated cancer will be much better than they are now.

In case of pain in nerves, due to pressure or encroachment of malignant growth, the x ray does not seem to relieve, but it does relieve the specific pain of the growth itself.

In cases of malignant disease, such as cancer of the breast of a certain size, and in cancer of the internal organs, if these cases are operable, I think surgery is the proper treatment, yet it will be well to ray these before and after operation. The preliminary raying may serve to destroy some outlying and but little developed invasion, and it may help to render the tissues sterile, thus aiding repair or preventing infection of the wound.

My left hand has had a good deal of exposure to the x ray during the past seven years; when I first took up this work I made a great many skiagrams of this hand, and have always been foolish enough to use it as a test, with the fluoroscope, of the radiance of tubes, in testing new tubes, and during examinations and treatments; during fluoroscopic examination it is always this hand that is brought into close proximity to the tube; it is a very unlucky hand, too; I frequently have received injuries enough to partly or wholly disable it, but cuts, tears, and crushes always heal much faster here than in any other part of my body, and there is never any suppuration. For some time I have been watching the development of what one writer says is a precancerous keratosis, due to continued use of the x ray, but so far I don't think I have any cancers; there is no question that certain operators have had them in places which have been burned repeatedly by the x ray; it is quite possible that the burn acted only as an exciting cause in persons who were already predisposed.

The results that I have had in bone tuberculosis are very gratifying, and they encourage me to continue the treatment in this class of cases, not, however, to the exclusion of surgical measures, but more as an adjunct.

I hope also that the results in glandular tuberculosis will continue to be good; I am sure the surgeons will not object to being relieved of these cases.

I am treating a case of tuberculous laryngitis in a patient who thinks he is improving; at any rate, he can talk in a fairly clear voice at times, sometimes for a period of an hour or more, but progress has been slow indeed.

As to tuberculosis of the lungs, I am not yet ready to say very much. I think there is an improvement in the cough, a lessening of expectoration, and a decided diminution of fever; I shall not have much to say about this for some time; I may mention here, however, that I am having built an arc light of twenty thousand candle power, able to throw a beam of light a foot in diameter to a distance of a mile and a half, which I intend to use in the treatment of pulmonary tuberculosis. It can be proved that this light passes through the body; the question is, will it kill tubercle bacilli, heal cavities, remove infiltration and consolidations, any or all, or aid in producing these results? I will tell you later.

In closing I wish to say that, while in certain diseased conditions the effect of the x ray is very satisfactory, even brilliant, yet for a long time to come the greatest caution should characterize our utterances to patients and those who are prospective patients. I fear that I somtimes discourage some people more or less when really I believe that they will be greatly helped, yet sufficient evidence has not accumulated to justify me in holding out strong hope to them; I feel that it is better to promise little and do more, than it is to promise a great deal and perform but little.

I regret the rash manner in which many who are totally unfitted are rushing into x ray work. The mere possession of an x ray machine, said to be the best on earth by some maker, and the ownership of a Crookes tube by no means justify one in using this powerful and potentially dangerous agent. Yet I know of men who are treating patients (they do not try to make examinations very much) with tubes that are wrongly connected to the supply of current, or with tubes that are not giving out any x ray at all, and some of them are not doing it at all with dishonest intent, but simply from lack of knowledge. After a while there is going to be a reaction against the x ray as a therapeutic agent, I hope the pendulum will not swing too far, casting undeserved discredit on a therapeutic agent that has established a rightful place for itself.

The Medical College of Virginia, Richmond.—At a meeting of the faculty of the Medical College of Virginia, held May 5th, the following students were notified that they had passed successful examinations for graduation:

W. M. Archer, Jr., of Richmnd; H. S. Baker, of Suffolk; Elisha Barksdale, of Houston, Va.; Moses Beumosche, of city; A. C. Biller, of Forestville, Va.; D. C. Burks, of Sherwood, Va.; W. E. Croxton, of Barton Heights; J. J. Davidson, of Hicksville, Va.; Charles S. Dodd, of Abell, Va.; H. O. Forbes, of Buckingham Courthouse; C. A. Foster, of Lancaster, S. C.; J. M. Gouldin ,of Rexburg, Va.; E. G. Hamilton, of Abingdon, Va.; C. R. Hartsook, of Cleveland, Va.; T. J. Holt, of Smithfield, N. C.; W. J. Judy, of Circleville, W. Va.; A. D. Louthan, of Richmond; W, B. Lyles. of Winnsboro, S. C.; D. M. McIntosh, of Granite, Va.; C. W. Mercer, of Richmond; R. P. Minnick, of King's Mill, Va.; J. H. Parker, of Dendron, Va.; J. R. Perkins, of Stuart, Va.; W. O. Pollard, of Richmond; R. R. Preston, of Glade Spring, Va.; J. L. Rawls, of Carrsville, Va.; W. M. Revercombe, of Clover Creek, Va.; B. A. Rice, of Montvale, Va.; N. M. Robinson, of Woodlawn, Va.; J. W. A. Sanders, of Longtown, S. C.; H. B. Sanford, of Richmond; S. W. Selden, of Selden, Va.; W. A. Shepherd, of Richmond; F. A. Sinclair, of Tabb, Va.; J. W. Sloan, of Chester, S. C.; W. T. Smith, of Urbanna, Va.; L. O. Vaughan, of Dendron, Va.; Thomas Watkns, of Randolph, Va.; Thomas H. Watts, of Cool Well, Va.; A. M. Willis, of Richmond, Va.

THE RESULTS OF X RAY TREATMENT.*

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Within the past two years many valuable reports have been made on the efficacy of the x ray in the treatment of various lesions of the body. As time elapses and we can watch the subsequent course of our cases we are able to draw conclusions which will help to place x ray therapy upon a definite basis. Like every new remedy, much has been claimed for the x ray, some of which doubtless time will not substantiate, but any one who has taken the pains to observe the results obtained by various operators in the cases reported, must be convinced that the x rays have a very beneficial influence upon certain diseased structures.

In this paper I have gone into as little detail as possible in the relation of the cases that I have to report, but have summarized some of the results that I have obtained, and have drawn observations and conclusions therefrom.

Epithelioma.—In a paper read before the Denver and Arapahoe County Medical Society, October 7, 1902, I reported six cases of epithelioma, either entirely cured or well under way toward recovery. Of these patients one remains cured after sixteen months, one after eleven months, one after twelve months, one after eight months, and one which was cured in July, 1902, had shown no signs of recurrence after four months, and has not been heard from since. In the sixth case, an epithelioma of the lower lip, in which I reported the ulcer as healed, but leaving some induration, treatment was stopped before the induration had disappeared, and in a short time there was a recurrence in this area. This patient has not returned for further treatment, but I understand that the growth has extended rapidly. In this connection I wish to emphasize the necessity of treating these epitheliomata of the lip very persistently, until all signs of induration have disappeared. I have treated several such cases, and find that the ulcer may heal rapidly, but generally the induration disappears only after several interrupted series of treatments.

In addition to these I will report seven cases which have remained cured for eleven, nine, six, four, three, two months, and one month, respectively. Of these thirteen cases, three involved the lower lip, one the lower eyelid, two the nose, five the face, one the neck, and one the tongue.

Carcinoma.—Seven cases. Six of these were inoperable; areas affected were the spine, jaw, face, rectum, uterus, and tongue. The x ray brought relief of pain and lessened the discharge when present in all but one; this being an extensive and very rapidly growing carcinoma of the jaw, which soon involved the parotid gland, and doubtless the facial nerve as well. The progress of the disease was checked in none of these six inoperable cases. The remaining case was a recurrent carcinoma of the breast, and presented in the scar area an irregular deep ulcer, about one inch and a half in its greatest diameter. The patient would not consent to an operation. The ulcer healed in about two months, after forty-three treatments had been given, and remains so at present, although only a short time has elapsed since recovery.

Sarcoma.—One case of small, round-celled sarcoma of surgical neck of humerus. Operation was advised, but the patient refused it. The area was treated for one month. Occasionally there was relief from pain for one or two days, but on the whole the anodyne effect of the rays was a failure, especially during the last two weeks of treatment. The ray had no effect in checking the growth. The patient finally consented to operative procedures, and an interscapulothoracic amputation was performed by Dr. C. A. Powers. The rays have been used persistently since the operation, as a prophylactic measure against the return of the trouble.

Epulis.—One case of four years' duration. Tumor the size of a cherry; was dependent from the gum of the upper jaw near the incisor teeth; the pendulous part was removed by a ligature. The base received thirteen treatments. Recovery. No recurrence in four months.

Rodent Ulcer.—Four cases. Two in the early stage, with translucent irregular yellowish nodules, with centre covered by scab; one case involving the cheek, the other the surface behind the ear. Area involved in each was about the size of a dime. Both patients were cured and have remained so, one for seven months, the other for three months. Of the other two cases, one was inoperable, had persisted for twenty years, involving an area of two inches in diameter, over the left malar prominence, and extended into the outer canthus. It was deeply ulcerated and surrounded by a raised cartilaginous rim; the lower eyelid was much indurated and could not be everted. The cartilaginous rim was curretted away and the entire area treated for nearly three months, sixty-five treatments being given. The improvement has been marked, and at present the area is nearly healed, a small, serous scab covering the centre. The induration has left the lower lid. The fourth case presented an ulcer one inch and a quarter in its greatest diameter, with the characteristic raised edge, and was located mainly behind the left ear, but extended also below and in front of the ear. It had persisted for ten years and had been operated on once. This case proved very obstinate in healing, requiring about five months of treatment. After three months' cessation of the treatments there was a recurrence near the lower margin of the scar. I am at present treating this area, and signs of healing are present. Possibly this recurrence might have been prevented if a wider area had been exposed in the original treatments, although the opening in the mask covered an area well outside of the raised edge.

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* Read before the Colorado State Medical Society at its thirty-third annual convention, held at Denver, October 6, 7, 8, 1903.

Tuberculous Glands.—Sufficient time has elapsed since the treatment of six cases of tuberculous glands of the neck, to enable me to estimate some of the effects of the x ray in this condition. We all know from observation that it is the nature of tuberculous glands to increase or diminish in size alternately, from time to time, without any treatment. It is hardly to be expected, however, that a case which is improving without treatment should present itself for any extensive operation or remedy. Hence, we may infer, as was the fact, that the glands in these cases that I report, were enlarging, and some of them quite rapidly. Furthermore, the enlarged masses of glands had been present in four cases for several years. In one case the glands had been removed from the anterior and posterior triangles of one side of the neck by two separate operations. Of the six cases, five were treated more or less successfully, and one was a failure. The case of failure was in a boy, four years of age, who was sent to me by Dr. Bonney. A mass of glands had developed below the angle of the jaw, had grown rapidly, and at the time of beginning treatment, both Dr. Bonney and I suspected that the glands had commenced to break down. This patient was treated for two weeks and a half, receiving twelve treatments, but the mass increased in size and at the end of this time the case was referred for operation to Dr. C. A. Powers, who removed the glands and found suppuration, as had been suspected. In the remaining five cases the glands have been reduced in size. In one case, the mass, which was of the size of a lemon, disappeared, and a small, fibrous thickening beneath the sternomastoid muscle marks the original site. In another case the glands were much reduced, and have remained comparatively insignificant in size for the past sixteen months. This case I reported to the Denver and Arapahoe Medical Society one year ago. In the three other cases, marked subsidence of the masses, which has so far been permanent; has been noted, covering a period of several months each.

Tuberculous Joints.—I have treated one case of tuberculous knee joint for a period of about one year, one hundred and twenty-five treatments having been given. The case was of long standing, the knee was much swollen, very tender to the touch, and painful. This case was referred to me by Dr. Packard, who had applied a cast to the knee, and a hip splint with perineal strap, some nine months before sending the patient for x ray treatment. The splint and cast have been worn ever since, the cast being removed at each treatment. The following changes have been noticed in this case: There has been a gain of twenty pounds in weight, the swelling at the knee has been much reduced, pain has been relieved, and the tenderness has largely disappeared.

Hodgkin's Disease.—I reported a case of this disease to the Denver and Arapahoe Medical Society one year ago. My report then showed a diminution in the circumference of the neck at the level of the clavicle of two inches and one fourth. This case, the history of which was given in the *Medical News* for January 24, 1903, has not been treated since December 17, 1902, and has not had any return of the trouble. Indeed, the glands have continued to decrease in size, and the patient feels well.

I have another case of Hodgkin's disease at present under treatment, in which improvement is taking place, as shown by the diminution in the glandular enlargements, which involved both sides of the neck and the groins.

Lupus Erythematosus.—Three cases. I have not been able to keep track of two of these cases. The third, a very extensive affection of both cheeks, ears, and nose, has remained cured for eleven months.

Acne Rosacea.—I will report three cases, one of these with a well marked hypertrophic condition, the end of the nose being enlarged to at least twice its normal size. This has been greatly reduced by the rays, has lost much of its redness, the upper surface being nearly normal in color, while the alæ are still somewhat red. The original condition had persisted for more than twenty years. I expect to treat the area again in a short time, but the improvement that I have reported in this case has persisted for four months. The other two cases presented the usual appearance of this trouble after it has persisted for several years. Both patients were cured, and have remained so, one for six, the other for four months.

Without entering into the details of the cases, I will state that I have had marked success with the rays in the treatment of acne vulgaris, senile keratosis, and chronic localized eczema; the technique that I have employed in the various cases has been that recommended by Pusey, of Chicago, which is fully described in his recent work on the *Röntgen Ray in Therapeutics*.

We are indebted to the researches of Kibbe, Scholtz, Pusey, Stewart, and others for our knowledge of the changes which take place in the cellular structure of tissues exposed to the x rays. All are practically agreed, that in both normal and pathological structures the x ray produces a degeneration of the cell bodies, followed soon by an inflammatory reaction, with development of new blood vessels and their distention with leucocytes, which pass into and around the degenerated cells, completing their destruction, and lastly cause connective tissue to replace these degenerated cells. The pathological tissue forming the different growths grouped under the general head of cancer is composed of cells of relatively low vitality, which, experience teaches us, break down easily. Hence we see that we can attribute a selective action of the x ray to these embryonic cells, and also why it is that by the aid of the rays we can break up the structural arrangement of these cells and cause their disintegration and absorption without impairment of the vitality of the normal tissue. If the intensity of the rays is too great or too long continued, we get the breaking down of the normal elements as well and the production of gangrene. This is an unfortunate accident and one which very rarely happens at the present time in the hands of an experienced operator.

It can be readily seen that, in using the x rays in the treatment of diseases, we are dealing with a very powerful agent, capable of doing a vast amount of good when skilfully applied, but fraught with danger to the patient when used by the inexperienced, and to the operator when long continued in experimentation. In the successful use of the rays we must have learned thoroughly by experience the intensity and quality of light which is best adapted to each individual case, also the proper distance of the light from the surface, and the length of the exposure required. The x ray operator sails between Scylla and Charybdis, for too weak a light will not produce results, and may even act as a stimulus to the growth, while too strong a light, vigorously applied to an extensive surface, where a large amount of tissue is liable to be broken down, may overwhelm the system with a fatal toxæmia.

Although it is possible to heal some of the lesions without producing a dermatitis, my experience leads me to believe that when the healing process has been established by a well marked dermatitis, recovery takes place more quickly, and there is less danger of a recurrence.

With operable, deep, malignant growths, the results reported by many x ray operators do not justify us in temporizing with the x rays. It is a well established fact, that the sooner these growths are thoroughly removed by the knife, the better the chance of complete eradication from the system. The time for the x ray is after the operation, as a prophylactic measure, and at the present time it is the consensus of surgeons and x ray operators, that the sooner and more persistently the rays are used after such an operation, the better are the chances for non-recurrence of the growth.

In malignant disases of the internal organs, the results have not been sufficient to warrant us in the belief that the rays, with our present technique, can effect a cure. We have been able to relieve the pain to a marked degree in cancer of the cervix and rectum, but have not been able permanently to check the progress of the disease.

The application of the rays, although painless in itself, has a marked anodyne effect in the majority of cases. I have had three cases in which I failed in this respect, however, and in each of the three the disease either involved a nerve trunk, or pressed upon a large plexus of nerves. In broken down, suppurating masses the rays have a tendency to stimulate the casting off of sloughs, to diminish the discharge, and greatly to modify the odor. This, with the relief of pain, certainly commends its use in this class of cases.

Sufficient time has not elapsed since the first cases of malignant disease were successfully treated, to warrant us in applying to them anything but the term "symptomatically cured," and in this sense I have used the word "cured" in this paper. When surgeons report recurrences of carcinoma ten years after operation, we feel that there is no definite time limit for this disease. Realizing, however, that it will require several years to establish a just judgment on the value of the x ray as a remedial agent in certain malignant forms of disease, and that even then we can only arrive at its correct status after a careful synopsis of the results or failures reported by many different operators, I have endeavored to draw a few conclusions from my own experience and that reported by others.

First: The therapeutic field of greatest usefulness of the x ray is with superficial epitheliomata, rodent ulcer, and lupus vulgaris, when the area involved is conspicuous, as on the face or neck, and where a cosmetic result is particularly to be desired.

Second: Healing by the x ray leaves the smallest and least perceptible scar; for, when properly applied, it destroys only diseased tissue, and particularly commends itself for use in those localities where it is undesirable to sacrifice the surrounding tissues.

Third: The x ray is very efficacious in many obstinate cases, which have resisted the ordinary methods of treatment, such as acne rosacea, chronic localized patches of eczema and psoriasis, lupus erythematosus, and kindred skin diseases.

Fourth: The results in tuberculous glands, when no suppurating focus is present, are encouraging, and the enlarged masses of glands in Hodgkin's disease appear to be susceptible to the treatment.

Fifth: The x ray should not be employed in any operable, deep, malignant growth, with two exceptions: First, as pointed out by Coley, where a surgical operation would sacrifice an extremity, and even in this case the value of the x ray is uncertain, and is determined by a few weeks' trial. Second, as mentioned by Pusey, with a view to limiting the operation by checking the growth, when immediate operation is inadvisable.

Sixth: The x ray may be of service even in inoperable malignant growths, by relieving pain, diminishing discharges, and lessening their offensiveness, and in many cases life may be prolonged in comparative comfort for a considerable period of time. Furthermore, from these apparently hopeless cases a number of remarkable improvements and a few recoveries have been reported.

Sventh: The x ray should be used as a prophylactic against return after all operations for the removal of deep malignant growths.

Eighth: The area of exposure should be wide, and the intensity and quality of the rays should be adapted to each case.

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Fulton County, N. Y., Medical Society.—On June 9th officers for the ensuing year were elected as follows: President, Dr. Edwin C. Podvin, of Johnstown; vice-president, Dr. W. C. McCulloch, of Gloversville; secretary, Dr. C. E. Pannaci, of Gloversville; treasurer, Dr. D. V. Still, of Johnstown; censors, Dr. J. K. Young, of Johnstown, and Dr. A. C. Hagadorn and Dr. John J. Beard, of Gloversville; committee on hygiene, Dr. T. DeLap Smith, of Johnstown; Dr. Frank Finch, of Broadalbin; Dr. Nelson Everest, of Rockwood.

THE CARBOHYDRATES AS ÆTIOLOGICAL FACTORS IN STOMACH DISORDERS.

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NEW YORK.

(*Concluded from Vol. LXXIX, page 1234.*)

Eructations must next be considered. By these are meant the expulsion of gases or fluids from the stomach. These may occur early or late in the process of digestion, and apart from the functional type may be said to be the result of gas swallowed during eating or drinking, or generated through decomposition. When the muscular tone of the stomach is normal, it contracts with the evacuation of the stomach's contents, and when empty, lies in a collapsed condition with its mucous membrane thrown into rugæ.

Gas, then, as soon as generated, under normal conditions, is immediately expelled. This is seen by the eructation of gas following the drinking of aerated water. If the saccharine substances are readily decomposed with the formation of gas, eructations would occur during the first thirty minutes after eating. As gas is expelled by gastric movements, if these are increased because of gastric irritation, the gas as well as fluid will be forced into the throat by abnormal contraction.

It has been remarked that in these patients suffering from irritation the appetite is easily satisfied, and the desire for eating frequent. In consequence, as the amount of ingesta is small, the actual flatulence would not be much; not nearly so much as in a big meal composed largely of fermentable matter; but the feeling of flatulence might be very persistent, owing to irritation, and constant, almost ineffectual belching be present.

Sour or acrid eructations occurring very early after a meal show early acidulation of gastric contents and consequently a small meal. If the eructations occur with a large meal, the fluids eructed are not sour for some time, as will be referred to later on.

Its Effects on the Bowels.—It is not my intention to discuss the physiology of intestinal digestion, a proper knowledge of which would be neceecasy to a full understanding of its effect here. Suffice it to say, that the small amount of cellulose ingested in these conditions deprives the intestines of one of its chief agents in stimulating evacuation of the bowels.

On the other hand, the extreme acidity of the gastric contents and the number of bacteria which may pass through the pylorus, early in digestion, may give rise to symptoms of intestinal irritation and consequent diarrhœa. This is not a constant, but a variable, symptom in this affection. The effects of gastric irritation on the tongue are fairly characteristic. In general terms, it may be said that the condition of the tongue is associated with the digestive functions.

To understand this association fully would require a detailed review of the physiology of the salivary glands, and that would be out of all proportion to the limitations of this paper.

Its importance in the diagnosis of stomach conditions cannot be overestimated, and too little attention has been paid to its appearance.

When the stomach and bowels are normally functioning, the tongue is clean and there are recurring sensations of hunger.

When the stomach is abnormally irritated, bowels regular, and hunger constantly recurs, the tongue is moist and clean, or has an irritated appearance, as in acidity.

If the stomach is irritated and the sensation of hunger does not recur to cause active salivary secretion, the edges are irritated and the surface is furred, as in typhoid fever and gastric ulcer.

In ulcer, if hunger recurs and consequent salivary secretion, the tongue is that of acidity.

If the tongue is pale, flabby, tooth-indented, moist and clean, or slightly furred, we may infer an atonic condition and anæmia with normal secretion and regular bowel movement, as in chlorosis.

If coated, there is a lack of salivation and an interference with appetite due to improper functioning of some part of the alimentary tract.

To sum up, then, it has been shown how excessive saccharine food may cause and undoubtedly sometimes does cause:

(1) Excessive acidity, premature acidity.
(2) Rapid digestion.
(3) Recurring hunger.
(4) Small meals.
(5) Eructations.
(6) A clean tongue.
(7) Sensory disturbances of many forms.

If cane sugar is not always the cause of hyperacidity, at any rate it must be considered a very important ætiological factor.

The effect it may have in the ætiology of ulcer, where usually chlorosis in some degree is present, is at least suggestive.

Ulcer almost always occurs in the antrum pylori, where most of the muscular work is done in digestion. Anæmia is associated with deficient muscular tonus, particularly in unstriped muscular tissue, as evidenced by the increased cardiac dulness and the production of cardiac murmurs (hæmic) in chlorosis. Relaxed muscular tonus means delayed action. This, in conjunction with hyperacidity which would supervene before the stomach could empty its contents, could bring about the lesion.

There is a second group of symptoms, which we often meet with, which have a different ætiological factor, the polysaccharine group, of which starch is the chief member.

A great many people are very fond of starchy foods, and consume them out of all proportion to the daily needs. Poverty often, also, compels their excessive use.

It has been previously stated that 100 grammes of proteid are daily necessary to the healthy adult organism weighing 70 kilos; and only 250 grammes of carbohydrates in order to maintain nitrogeneous equilibrium, with 100 grammes of fat.

An analysis of the food in daily use among healthy workmen shows from four to five times as much starch or carbohydrates as proteid, and this is perfectly compatible with health.

We derive our starches from two sources chiefly, wheat bread and potatoes. Wheat contains, according to Bunge, 12 per cent. of proteid, 1.7 per cent. of fat, and 70 per cent. of carbohydrates. Potatoes contain 2 per cent. of proteid, 1 per cent. of fat, and 20 per cent. of carbohydrates. To obtain the necessary amount of proteid from bread, $583^1/_3$ grammes of carbohydrates would be consumed, and from potatoes 1000 grammes, or practically four times the amount necessary for nitrogeneous equilibrium, or twice as much as we know to be compatible with health.

Every one is familiar with the digestibility and nourishment derived from a bowl of bread and milk. Seventy-five grammes of wheat bread and a little milk contain 43 grammes of proteid, 42½ grammes of fats, and 92½ grammes of carbohydrates, or about the proportion which Burdon Sanderson found to be compatible with perfect nitrogeneous equilibrium.

If, however, potatoes form a large part of the diet, as often occurs, the bulk necessary is tremendous (inasmuch as four fifths of them is water) in order to obtain the necessary amount of proteid. In consequence, the strain on the capacity of the stomach would undoubtedly bring on gastric disturbances, particularly if some degree of anæmia were present.

With these factors present we have a fruitful cause of distention, which later may develop into permanent dilatation.

These patients usually complain of waterbrash after eating, and will tell you that it is not sour. The explanation is simple. You have seen an infant reject, immediately after nursing, a portion of the contents of an overloaded stomach, particularly if carelessly handled, so that pressure is brought to bear on the abdomen. A similar condition of things exists when a stomach is overloaded with starchy products, and the patient, by stooping or otherwise, brings pressure to bear upon the abdomen. Some of the contents are forced into the throat, and have a sweetish taste, owing to the products of ptyalin digestion on starch.

Owing to the enormous bulk present, HCl acidulation requires two or more hours, before organic acid decomposition ceases. Meanwhile organic acids are formed by bacterial action, either on starch itself, or on maltose. As acidulation in so large a mass would require considerable time, even with organic acids, peptones would slowly form, and an essential stimulus to gastric secretion and motility would be delayed. This in its turn would further favor decomposition. The result would be the generation of gas, beginning a variable time after ingestion and increasing in volume until inhibited by free HCl.

A large body of fermenting material, combined with muscular atonicity so common in chlorosis, permits of the ballooning of the stomach, particularly at the fundus, and occasions that condition described by the French writers as *embarras gastrique*. These patients complain of fickle appetite or anorexia and sour stomach, with flatulence, gastric distress, fullness, weight, and frequently drowsiness, after meals. The appetite is variable and depends upon different factors, one of the principal of which is constipation.

As already stated, loaded intestines will inhibit the movements of the stomach, and consequently favor the formation of organic acid. With this slowing of the digestive processes there will be increase of belching and sour stomach conditions. When digestion is thus delayed, the "alimentary centre" continues to be inhibited, and there is no desire for food unless it is centrally stimulated through the sense of sight or smell, or the thought of eating.

The patient goes to the table without appetite and in a routine manner; but, with the stimulating effects through the cortex, the appetite increases, and a large meal will be taken before inhibited through afferent impulses. Possibly the taking of food increases the local circulation to the stomach, thus assisting to bring about the same result. The various symptoms, then, of sour stomach, flatulence, fullness, weight, distress, and other sensory disturbances, are self-evident from what already has been said.

The condition of the tongue in these patients also is fairly characteristic, usually moist, flabby, and slightly furred. If anæmia is present, it is also quite pale and often tooth-indented on the edges.

Pain is sometimes present, particularly toward the end of digestion, and is not, as a rule, localized. Sometimes, however, gastralgic attacks occur after some particular act of indiscretion in diet or overexertion. A brisk walk shortly after a meal on a full stomach will cause it, and it is then described more as an ache than a lancinating pain.

The drowsiness of these patients may have a double causation, due either to the excessive demand on the stomach for gastric secretion and a consequent determination of blood there, thus leaving the brain somewhat anæmic, or to absorbed decomposition products. In connection with this, also, it is to be noted that frequently a considerable degree of cyanosis is present, with no organic changes determinable in the circulatory or respiratory organs.

That the drowsiness, cyanosis, vertigo, headache, and occasionally epilepsy, are due to the absorption of decomposition either of carbohydrates or proteids, there is very little doubt. For headaches, the decomposition products of proteids are probably largely responsible. If the writer of this paper uses proteids too freely in his food in excess of the due proportion to carbohydrates, it invariably causes a severe migraine attack.

In this connection, it is an interesting fact that acute rheumatism is associated with the presence of excessive lactic acid in the blood. Diabetic patients, treated with lactic acids internally, are liable to typical rheumatic attacks, but the doses required to bring this about are excessive.

Granting that one ounce of all the carbohydrates daily ingested is converted into lactic acid, and this amount absorbed; suppose, then, that there is a sudden chilling of the surface of the body, and a consequent interference with the eliminating organs, it is not difficult or unfair to infer that rheumatic pains might ensue.

I remember well the case of a young Englishman who came to me for rheumatic treatment; he had been taking salicylates and alkalies for a considerable time with only temporary improvement.

On directing attention to the stomach, I found that he had some permanent dilatation and gave a history of being a hearty eater, consuming daily large quantities of carbohydrates. On practising lavage and correcting the diet, recovery from the symptoms was immediate.

We often see stout people who have been hearty consumers of carbohydrates from middle life on, who are more or less constant sufferers from rheumatic pains or muscular rheumatism. We know also that one of the products of muscular activity is lactic acid. It is quite possible that, owing to the extra demand on the eliminating organs (particularly when these are not favored by exercise), the excessive amount of lactic acid in the system from the double source may bring about the rheumatic pains; so that rheumatism may not be solely due to imperfect metabolism, but to the effect of absorbed products of decomposition as well.

The opportunity of investigating a relationship between muscular rhemuatism and dietetic errors has not occurred to me.

It would also be interesting to know whether the presence of lactic acids in the blood in abnormal quantities in acute rheumatism is at all associated with an excessive carbohydrate diet, and an invasion of the blood by the *Bacterium lactis* or some similar organism.

We know that in acute rheumatism there are prodromal symptoms preceding the onset of the severe rheumatic pains; and also that the lactic acid which is present in excess in the blood continues for a few days after the acute symptoms subside. This, then, would be the regular history of any acute infectious disease which ran a limited course, the results of its metabolism on the tissues continuing to be excreted subsequently, for some days at least, to the death of the organism causing it.

There is another form of gastritis which must be mentioned, which is due to an entirely different factor, and brings about a characteristic set of symptoms, as well as having a special pathology. I refer to that due to alcohol.

Alcohol is very diffusible, and is readily absorbed by the gastric mucous membrane, together with all the products held by it in solution. During its absorption, it causes a proliferation of the fibrous connective tissue. Eventually, the development of this destroys the secretory structures of the stomach, giving it a more or less characteristic appearance. In this connection, it is interesting to observe that the effects of alcohol on the stomach are similar to those on the liver.

Beaumont has observed, as well as others, that the effect of alcohol and acetic acid on the gastric mucous membrane, if given in concentrated form, is the production of large quantities of mucus. We know also how an acute attack of alcoholism is attended by the characteristic matutinal vomiting with its excess of mucus.

Gastritis, therefore, with alcohol as the ætiological factor, should be treated both prophylactically and medicinally as an entity, distinct from other forms of gastritis, both acute and chronic.

If the deductions based on the foregoing discussion are true, then we have to deal with three distinct types of chronic gastritis based on as many different ætiological factors.

It must not be inferred that every form of stomach trouble without gross organic changes can be so classified; for combinations of ætiological factors, as well as combinations of symptoms, exist. Three types, however, stand out prominently. They are: *(a)* The saccharine; *(b)* the starchy; and *(c)* the alcoholic.

Careful inquiry must always be made. A patient will tell you that she does not take sweets to excess; yet if you ask specifically, she will say that she drinks six cups of tea or coffee daily, with two teaspoonfuls of sugar in each cup.

Great care must be taken to exclude all conditions, such as ulcer, carcinoma, stenosis with accompanying dilatation, gastroptosis, and the somewhat rare achylia gastrica, attended with organic changes.

It must not be forgotten, also, that stomach disorders, resembling the idiopathic types, accompany such constitutional conditions, as affecions of the heart, lungs, kidneys, liver, and blood, and particularly chlorosis.

The ascribing of almost all gastric disorders to neuroses of the stomach has recently become quite popular, and elaborate systems of classification, based on the special nerve or nerves affected, have been evolved. These various disturbances generally are symptoms of irritation, due to the same ætiological factor; one nerve or series of nerves predominating in the irritation.

There are undoubtedly true gastralgias of central origin which cannot be connected with a local lesion.

Two other constitutional conditions must be mentioned in this connection, which give rise to a multiple gastric symptomatology. They are hysteria and neurasthenia, both of central origin. In both these there are, however, so many other symptoms referable to other organs, and so few positive evidences of gastric disturbance, that the diagnosis generally offers little difficulty.

It must also be remembered that any form of chronic gastric trouble can be diagnosticated and remedied by intelligent and detailed inquiry into the symptomatology and dietetic history of the patient, without always resorting to the use of the stomach tube; a proceeding distasteful alike to the patient and the physician, the mere mention of which will often drive the patient to seek relief from a quack, or to a hostile camp.

The treatment of uncomplicated stomach troubles, in view of the foregoing facts, is comparatively simple, and may be thus summarized:

(1) Arrange a diet in proper physiological proportions.

(2) Minimize the use of cane sugar in food in all forms.

(3) Forbid the use of indigestible articles, such as hot bread, pastry, pickles, pork, cabbage, etc.

(4) Attention to personal hygiene is necessary, such as eating slowly and regularly and the taking of the proper amount of exercise. If physical conditions render this impossible, massage must be substituted.

(5) The bowels must be regulated dietetically, hygienically, or medicinally.

(6) Antisptic treatment to the stomach is undoubtedly of great service. A great many antiseptics have beeen employed, notably carbolic acid, creosote, the salicylates, etc. Personally, I prefer the physiological ones, such as dilute HCl, or dilute HNO_3; 15 to 20 drops of the dilute acids in half a tumbler of water, fifteen minutes before meals.

(7) Attention must be paid to a supply of drinkables. In addition to the fluid taken as soups, etc., with the food, we consume it as water, tea, coffee, and alcohol, chiefly. Personally, I have never seen water, at a proper temperature, do anybody any harm. The system demands it freely in its metabolic processes. It is known that under physiological conditions, it remains but a short time in the stomach, and that it has practically little or no effect on gastric acidity, only temporarily altering its percentage. We know that in the main, the stomach is a secretory, not an absorptive organ, only sugars, slightly (Von Mering), and alcohol, with its dissolved products, being there absorbed.

Concentration favors gastric absorption. On the other hand, dilution favors intestinal absorption, and as that is where most absorption takes place, water in large quantities is beneficial.

A great deal has been said about the baneful effects of tea and coffee on the stomach. It has been my experience that, apart from their stimulating effects on the central nervous system, producing insomnia and palpitation, if properly made and not too strong, their effects on digestion are almost nil. Their baneful effects lie, not in the alkaloids per se, but in the sugar taken with them.

Of alcohol and its effects on the system a great deal has been said and written. Suffice it here to say that it is absorbed by the stomach, together with what it may carry in solution; that in weak solutions, it is stimulating; but in strong solutions, it is irritating and mucus producing, and if long continued, permanent anatomical changes in the stomach wall take place. This physiological action of alcohol in weak solutions in the permanently dilated stomach is interesting, as it shows Nature's attempt at compensation. In those conditions the yeast fungus is invariably present, forming alcohol from sugar.

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THE FEVER OF THE PUERPERIUM (PUERPERAL INFECTION);

A CHRONOLOGICAL REVIEW OF THE DOCTRINES OF ITS ÆTIOLOGY AND OF THE METHODS OF TREATMENT FROM EARLY TIMES TO THE PRESENT.

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(*Concluded from Vol. lxxix, page 1238.*)

TREATMENT (CONTINUED.)

Collargolum and Unguentum Credé.—Very satisfactory results have been reported from foreign clinics from the use of these preparations in septicemia. Collargolum is an aqueous solution of soluble metallic silver and is employed for intravenous or subcutaneous injection in doses of from 1 to 2 grains in a 2 to 5 per cent. solution; the ointment is made by combining the same salt with a suitable base. As usually employed, a quantity of the ointment representing from 30 to 60 grains is rubbed very thoroughly into the skin for from 15 to 30 minutes, one to three times a day. In severe cases of puerperal sepsis as much as 1 drachm has been used in this manner several times daily.

The literature on this subject is extensive. Schmidt (*Deutsch. med. Woch.*, April 9 and 16, 1903), Jaenicke (*idem*, February 5, 1903), Reidhaar (*Monat. f. Geb. u. Gyn.*, B. 16, H. 4, 1902), Netter (*Bul. de la Soc. méd. des hôp. de Paris*, January 22, 1903), Vidal (*Prog. méd.* March 21, 1903), and many others have reported cures from its use. In Reidhaar's case streptococci, which were present in the blood in large numbers, entirely disappeared soon after the collargolum treatment was begun.

Normal Salt Solution.—The great value to be derived from the liberal use of normal salt solution in the puerperal as well as in other forms of septicemia has long been recognized. Bosc first called attention to this fact in a paper published in *La Presse médicale*, of Paris, in 1896 (No. 49, page 287) (44).

Whether administered intravenously, subcutaneously, or by the bowel, the fluid appears to act as a diluent of the poison in the blood current, rather than as a germicide. In a streptococcic case recently reported by the writer (45), in which the patient's kidneys had practically ceased to functionate for many hours, she being comatose when seen, the abdomen was opened and the cavity subjected to continuous irrigation with the salt solution, the case ending in recovery.

Dr. Harvey Cushing has called attention to the fact that a solution containing 0.6 per cent. of sodium chloride, that commonly employed, should not be regarded as a normal physiological salt solution. He says (46):

"As a matter of fact, this is a most misleading designation, if we mean to imply by the term a fluid which is isotonic with the body fluids, and thus one that may be used with impunity in large amounts to replace directly in the circulatory system the loss of normal blood serum. A 0.6 per cent. salt solution is, in the first place, sufficiently hypisotonic to lake the corpuscles perceptibly if used in sufficient quantity and, furthermore, the recent observations of Loeb and his pupils have demonstrated the actual toxicity toward cellular activities of the pure sodium chloride solution, that is to say, when uncombined with other salts. . . .

"There can be no doubt that the pure sodium chloride solution alone may, in certain ways, be injurious from its toxic effects; that, furthermore, a solution of the single salt, as weak as the 0.6 per cent. commonly employed, has a hæmolytic effect on the red corpuscles. The desirability, therefore, of administering a fluid which shall be as nearly as possible isotonic with the blood—that is, shall have a molecular concentration corresponding to that of the liquor sanguinis—is evident."

A solution prepared according to the formula of Locke, containing sodium chloride, ℥ iss; calcium chloride, gr. 3¾; and potassium chloride, gr. iss to the quart of sterilized water will meet all indications.

Continuous or Intermittent Irrigation.—The reaction against both continuous and intermittent irrigation of the uterine cavity in puerperal sepsis, so much in vogue a few years ago, has been slow, but complete, and to-day these methods of treatment have but small place in routine obstetrical practice. The solutions employed were usually of mercuric bichloride or biniodide, 1 to 4,000; of carbolic acid, 1 to 40; of thymol, creolin, boric acid, or potassium permanganate, or, lately, of sodium chloride. In 1894 Schräder asserted that the practice was distinctly harmful, as "the poison of puerperal endometritis is often actually diffused throughout the body by intrauterine irrigation, and what is often a comparatively harmless local affection is thus converted into a serious and perhaps fatal condition" (47). This view was concurred in by Leopold and many others.

When it is considered that in putrid infection the saprophytes and cocci are found deeply imbedded in the necrobiotic layer, as well as upon its surface, and that, in septicæmia, the pathogenic organisms have penetrated beyond the granulation wall, it is difficult to determine the good accomplished by irrigation under any circumstances, except before and after curetting.

Krönig found that a few hours after intrauterine antiseptic injections streptococci were as numerous in the uterus as before, and that their virulence, tested on rabbits, was undiminished. It is worthy of note, however, that Bumm, in his recently issued textbook (48), advocates intrauterine irrigation with from ten to twenty litres of 50 per cent. alcohol, or with 1 per cent. carbolic acid or lysol solution. In some cases he favors two hours' continuous irrigation with a solution of one-half per cent. acetic acid, or with 2 per cent. boric acid.

Iodine Treatment.—In 1883 Dr. T. J. Alloway published a paper in the *Canada Medical and Surgical Journal* (Vol. XI, page 526), in which he advocated a new treatment for puerperal infections, namely, the introduction within the uterus of suppositories containing from 10 to 20 grains of iodoform night and morning, "the idea being," as he said, "to replace the frequent and often unsatisfactory intrauterine injection of antiseptic fluids." He reported three cases successfully treated by this method. Dr. W. E. Boardman, the following year, reported a successful case in the *Boston Medical and Surgical Journal* (September 11, 1884, page 246), in which he had employed iodoform insufflation within the uterus.

The pronounced affinity of the protoplasm of the white blood corpuscles for iodine has already been referred to. Taking into consideration that, in a great majority of cases, the infection spreads from the uterus through the medium of the lymphatics, Dr. W. R. Pryor, of New York, has concluded that "that method of treatment which secures the sterilization of the original wound and accomplishes the absorption by the infected lymphatics of a potent yet harmless antiseptic, if at the same time accompanied by such treatment as will promote the eliminative functions, will succeed best" (49). When bacteriological examination of the uterine lochia demonstrates that the infection is due to streptococci, staphylococci, or colon bacilli, he flushes the uterine cavity first with Thiersch's solution and then with a solution of boric acid, and then packs it full of 10 per cent. or even 20 per cent. iodoform gauze. "If the infection is superficial the amelioration of symptoms is sudden, and nothing more is needed than to remove and renew the uterine packing in three days. The second dressing is removed in two more days and is not renewed." In cases in which the constitutional symptoms are pronounced, or in which it is suspected that the infection has passed beyond the uterus, he thoroughly dilates the cervix, curettes the uterus, irrigates with saline solution, and packs the cavity with 10 per cent. iodoform gauze. He then opens Douglas's pouch and packs the pelvis with iodoform gauze of 5 per cent. strength. The iodine reaction may usually be demonstrated in the urine of the patient in about five hours. The uterine packing is removed at the expiration of three days, and is not renewed unless the cavity is large; that in the pelvis is allowed to remain in place one week and is renewed.

Pryor lays considerable stress on the method of preparing the gauze. "The best plain gauze, in five-yard rolls, is sterilized. It is then dipped into a 5 per cent. solution of iodoform crystals in ether. About one pound of the solution is sufficient for five yards of gauze. The ether is then allowed to evaporate. When dry, the gauze has a pale blue tint, owing to the action of the free iodine upon the starch in the cotton fibre. In this state the gauze is unfit for use. I then dip the gauze in a hot aqueous solution of bichloride of mercury, 1 to 4,000, and wring it as dry as the hands can. The bichloride acts as a fixing agent and the gauze becomes of the golden yellow characteristic of the presence of iodoform. . . . The drug-laden dressing is then packed into jars and sterilized for half an hour."

He reports 37 cases in which this plan of treatment was adopted. Twenty-seven of the patients had not been operated on previously, and but one died; ten had been curetted before coming under his care, and three of these died. He does not advocate curettage of a septic uterus, except when this procedure is followed by packing with iodoform gauze in the manner described.

Curetting.—No more radical change in the treatment of puerperal infection has taken place within a very few years than that in connection with the use of the sharp curette. Formerly, when it was suspected that secundines had been retained, the uterine cavity was thoroughly scraped out, douched, and packed with iodoform or plain sterilized gauze; to-day, curetting of a septic uterus with a sharp instrument is considered unjustifiable after labor at term by a great majority of obstetricians. It is almost universally conceded that such an operation breaks down the wall of plastic lymph set up by nature as a barrier to the spread of the infection, and opens blood and lymph channels, thus allowing more septic material to be disseminated. While certain of these facts are admitted, it is asserted by those who favor the procedure that the gauze tampon provokes contraction of the uterus, which thus closes or diminishes the orifices of the vessels, and that, the diseased layer having been removed, the antiseptic comes in closer contact with the most active source of infection. While this theory, to a certain extent, is plausible, and in spite of many successes following this line of treatment, it would appear that the arguments against it are of such weight as to prohibit the use of the sharp curette in these cases.

Williams calls attention to the fact that, in the most severe cases of puerperal infection, there is usually absolutely nothing in the uterine cavity which can be removed by the curette. In those cases in which the cavity contains much *débris*, the latter should be removed with a finger, or exceptionally, with a dull wire curette, and the uterus then douched with a large quantity of normal salt solution.

THE TREATMENT OF TO-DAY.

Reduced to few words, the treatment of puerperal infection has for its aim (1) the removal of the source of infection; (2) the neutralization of the effects of the septic germs or of their toxines; (3) the support of the patient's vitality. Considerable difference of opinion exists as to the manner in which these aims may best be accomplished. J. Clarence Webster, an authority from whom I have already quoted, advises, when the vagina is affected, that it be thoroughly washed with 50 per cent. peroxide of hydrogen solution and then packed with gauze soaked in a solution of formalin ♏. xxx; glycerin, ℥iv; and sterile water, O; after twelve hours the gauze should be withdrawn, the parts again washed with peroxide, and fresh gauze inserted. This treatment is repated until the parts are in a healthy condition. The uterine cavity should be explored with a finger, and if no abnormal masses are attached to its walls, any *débris* present should be simply washed out with normal salt solution. If the walls are rough or if secundines are adherent, the finger or placental forceps should be employed, followed by saline irrigation.

This author strongly advises the introduction into the uterus of gauze soaked in the formalin-glycerin preparation. "In cases in which the organisms have not passed beyond the uterus it is rarely necessary to use more than one or two applications of the gauze. When there is evidence of general systemic invasion or of pelvic infection external to the uterus—*i. e.*, parametritis, salpingitis, etc.—it is useless to continue the intrauterine applications." He condemns the practice of swabbing out the uterus with corrosive sublimate, carbolic acid, and the like.

J. Whitridge Williams advises the following plan: Abrasions or lacerations of the vaginal walls or vulva should be occasionally brushed with pure carbolic acid or with tincture of iodine and the parts kept clean. If the repaired perinæum breaks down and suppurates, the stitches should be removed to allow of free drainage. Finger curetting and saline douches, if necessary; bichloride of mercury or carbolic acid douches should not be employed. "If bacteriological examination shows the presence of streptococci, all local treatment should at once be omitted. If dealing with putrid endometritis, and the symptoms do not yield to the first saline injection, additional ones may be given. When the infection has extended beyond the uterus local treatment should not be persisted in, as it will do more harm than good."

The practice of introducing suppositories of iodoform into the uterus in practically all cases of rise of temperature during the first days of the puerperium is very common. As a rule, each suppository contains from 15 to 30 grains of the drug combined with starch and cocoa butter, or with starch, glycerin, and gum acacia. But one suppository is used in twenty-four hours, and is held in place by a light tamponing of iodoform or plain gauze. If a septic condition of the uterus has already developed, very much larger amounts of iodoform, even 100 or more grains, may be used without danger of poisoning the patient (50).

Frequent and copious infusions of normal salt solution are of inestimable benefit. Ergot is always indicated, and usually strychnine and quinine. The writer's custom is to prescribe the fluid extract of ergot, in ten minim doses, or ergotin, one quarter of a grain, and strychnine nitrate, one sixtieth of a grain, every three hours from the beginning of the attack, and later, either quinine sulphate, two or three grains, or Warburg's tincture (without aloes), in dessertspoonful doses, three times daily. When the patient's temperature declines, brandy or whisky should be given liberally. Runge (quoted by Bumm) advises large doses of one or the other liquor during the entire course of the disease. Body temperature should always be controlled by cold water sponging, ice compresses, or an ice water coil, and never by the administration of drugs.

The patient's diet should be nourishing to the last degree, but of such nature that the tax put upon the digestive system is reduced to a minimum. During the height of the fever food in small quantities should be given at frequent intervals. Peptonized milk, malted milk, white of eggs, calves' foot jelly, meat extracts, gruel, and the like, are valuable under these circumstances.

On the same principle that the blood corpuscles are favorably influenced by the absorption of iodine from the uterus and pelvis, it would seem that an assimilable form of this drug given by the mouth would yield distinctly satisfactory results. In a number of instances during the past year the writer has employed a preparation of this kind, apparently with great benefit to the patient.

The surgical means of combating the disease have already been noticed. The necessity of evacuating pus collections wherever they may occur need not more than be referred to.

* * * * * * *

In this superficial review of puerperal infection, covering a period of more than 2,300 years, one cannot but be impressed by at least two facts which stand prominently forward from the great mass of dogmatism presented. The first of these to excite wonder is that a theory, the fruit, as far as is known, of one man's deductions, should have been accepted as a natural law almost without reservation for nearly twenty centuries; that, during all this time, a symptom of a pathological condition should never have been recognized as such, but should have been considered as the ætiological entity.

Hippocrates stood for all that was great in medicine. In such reverence were his teachings held that no practiser of the healing art possessed the temerity to contradict *in toto* the soundness of his reasoning. It is a strongly developed characteristic of mankind to blindly follow a leader or a strongly intrenched idea. As expressed by Herbert Spencer (*The Inductions of Ethics,* chapter II, page 335), "A trait common to all forms of sentiments and ideas . . . is the consciousness of *authority.* The nature of the authority is inconstant. It may be that of an apotheosized ruler or other ruler supposed to give commands. It may be that of ancestors who have bequeathed usages, with or without injunctions to follow them. . . . It may be that of imagined utility which every one is bound to further. . . . A further component is the represented *opinion* of other individuals, who also, in one sense, constitute an authority and exercise a coercion."

And so it was with those who followed in the footsteps of the Father of Midwifery, but it is to be remembered that, during many hundreds of the years intervening between his time and the middle of the seventeenth century, the practice of medicine and surgery was in ill repute, charlatans and mountebanks of all kinds trading almost universally for their own gain on the credulity of rich and poor alike. Only at intervals did a disciple arise who shed lustre upon the art, a disciple whose ability singled him out above all others of his time, whose fame has come down to us rich with the flavor of things accomplished.

For centuries, too, the delivery and care of women in childbed was entrusted almost exclusively to midwives, it being considered undignified as well as improper for men to officiate at such times. It is related that, at the end of the sixteenth century, popular prejudice was so strong that a physician of Hamburg, whose curiosity had prompted him to be present at a confinement, disguised in female attire, upon discovery was publicly branded before the Town Hall as a punishment. In this country, as late as 1815, Dr. John W. Francis, professor of obstetrics in the University of the State of New York, wrote that "it is now generally conceded that the practice of midwifery by physicians is not derogatory to their dignity, and greater attention should be paid to this branch in the curricula of our medical schools."

The second fact which holds attention is the great reluctance with which physicians accepted the doctrines of contagion. Thomas Kirkland, in 1774, was probably its sponsor, in England at least, and he was ably seconded by others in disseminating it, yet the better part of one hundred years was to elapse before its truth was universally acknowledged. A somewhat analogous condition of the present time, perhaps, is the refusal of some to acknowledge the merits of diphtheria antitoxine, in spite of the preponderance of evidence in its favor.

And to-day, progressed as we have well over the threshold of the twentieth century—in spite of our knowledge of the cause of puerperal infection; in spite of accepted principles of asepsis and antisepsis; in spite of—everything, although epidemics of the disease are a thing of the past, the mortality outside of hospital practice probably is as high as it was forty or more years ago! With reason may it be asked, Why? and with reason may the answer be. Because of ignorant midwives, first; and, second, because of disregard by the general practitioner of the rules of surgical cleanliness.

381 WEST END AVENUE.

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Therapeutical Notes.

Sunstroke.—The *Chicago Health Bulletin* for the week ending June 18th gives the following practical notes on sunstroke:

"There are two forms of sunstroke. The mildest is that known as heat exhaustion. This manifests itself in the case of people who are overcome by heat without being actually sunstruck. In this form the skin is pale, cold, and clammy, and the pulse feeble. While death sometimes results, the patients under good treatment will usually recover. Persons affected in this way should be removed to a shady spot and have their heads and chests dashed with cold water. Spirits of ammonia (hartshorn) should be applied to the nostrils, and sometimes it is necessary to administer small quantities of stimulants.

"Heat stroke or insolation is the serious form of this trouble, and the one to be most closely guarded against. In cases of real insolation the face becomes purplish, eyes bloodshot, veins swollen and corded and the skin dry and burning hot to the touch. It is not always fatal, but many of those whose lives are saved are ever afterward invalids, with brain power more or less impaired. The effect of the sun's heat seems to be most marked on the brain and spinal marrow. When real insolation occurs the brain becomes so heated that the human 'heat centre,' controlling the production of bodily heat, is affected and the temperature rises from the healthy mark 98½ as high as 110 or over, and often keeps on rising for some time after death. The 'heat centre' lies at the back of the head and should be protected from the direct rays of the sun.

"Insolation is so dangerous that a physician should be called as soon as possible. While waiting the doctor's arrival much good can be done and life often saved by applications of ice to the head and spinal column. It is best broken in small pieces and placed in cloth or rubber bags, but when these are not to be had ice can be placed directly about the head and neck.

"Workmen and others exposed to the direct rays of the sun should have their heads well protected and should wear woolen next to the skin. A very useful precaution is a pad of cotton batting or flannel sewed along the back of the undergarment, so as to cover and protect the spine. . . . As long as perspiration is free people can stand a high degree of heat, as the evaporation of the moisture on the body tends to cool it. But in 'muggy' weather the excess of humidity in the atmosphere checks this evaporation. Then when the temperature exceeds or even nearly approaches the normal bodily heat of 98½ degrees there is trouble.

"People should be careful not to expose themselves unnecessarily in hot weather of any kind, but when the conditions are such as here named they should be extraordinarily careful. It is well to bear in mind the old rules: Keep cool as to temper and your body will not get so hot; avoid all alcoholic drinks; eat less than usual and more simply; walk on the shady side of the street; avoid overexertion; let the air circulate freely about the head, either by frequent removal of the hat or by wearing a perforated head covering.

"Insolation is more far reaching and dangerous in its effects than most people know of; therefore a doctor should be called at once to any one with the symptoms above described as indicating heat stroke or true insolation."

Methylene Blue in the Treatment of Variolous Ophthalmia.—MM. Painblan and Taconnet, of Lille (*Echo médical du nord, Revue française de médecine et de chirurgie*, June 20th), have observed, in the course of an epidemic of smallpox that raged in 1902 and 1903, forty-eight cases of affections of the eye in 935 patients with smallpox, cared for in the service of Professor Combemale and M. Deléarde. In addition to the ordinary treatment by bathing the eyes with borated water, etc., they systematically employed methylene blue in a solution of 1 to 500, and subsequently 1 to 300, instilled several times a day. They have reported some interesting results to the Central Medical Society of the North. In all the cases of conjunctivitis, even in those that were accompanied with an abundant purulent secretion, a cure was produced in a few days. In not one case of conjunctivitis treated from the start with methylene blue was the trouble accompanied with any lesions of the cornea. In cases in which the cornea was already attacked when the treatment was first applied, the blue had the most fortunate effect. Under its influence the corneal infiltrations cleared up and the ulcers and abscesses were arrested in their course and cured. In two cases the treatment resulted in the absorption of a hypopyon that already existed. Finally, in two cases, described as very severe, in which the patients entered the hospital with suppuration in full course and with ocular lesions already advanced, and showed the cornea practically destroyed, with hernia of the iris, the methylene blue was still very efficacious. Employed after thermocauterization of the hernia, it brought about the rapid subsidence of the large ulcers, which healed without any other application than the inevitable adherent leucoma, although purulent destruction of the eye was to be feared.

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"THE HIGHER GYNÆCOLOGY."

In theology we have had "the higher criticism," and now in medicine we have "the higher gynæcology." The president of the British Gynæcological Society, Dr. John W. Taylor, applied it in his inaugural address to the work devolving upon the medical profession of fighting against the horrible practice of preventing conception, a practice whereby "race suicide" is made imminent, populations are degraded, and those who follow it are themselves undoubtedly made to suffer heavily in the long run. We think the term is well applied.

The title of the address *(British Gynæcological Journal,* May) was The Diminishing Birth Rate, and What Is Involved by It. The speaker showed that, while the birth rate was rising in Russia and Japan, it was steadily falling in the leading countries of western Europe—more rapidly in the United Kingdom, especially in England and Wales, than even in France. He gave it as his impression that the same decrease was going on in the United States, though the returns were not sufficiently full for annual ratios to be expressed in figures. We fear it must be confessed that his impression with regard to our country is correct.

As a matter of plausible inference it appears that the diminution of the birth rate is taking place chiefly if not exclusively among that class in each nation that it would be most for the nation's interest to have multiplied. Crime, especially juvenile crime, and insanity are on the increase, and that fact is held to show that the classes that furnish most of the criminals, if not most of the insane, are the only ones that escape the inroads of artificial infertility. Hence decadence has begun among the nations of western Europe and in the United States—a decadence that is to be checked only by restriction of the evil practice in question.

Dr. Taylor fancies that incomplete coitus and other methods of preventing conception lead to physical ailments, generally remote, but sometimes immediate, in those who practise them. He imagines that the excess of seminal fluid over what is needed for effecting impregnation is normally absorbed into the circulation from the interior of the uterus, and that it then performs some function analogous to that of an "internal secretion;" he also lays stress upon the wholesome effect of the ovarian rest secured by pregnancy and lactation; and these beneficial effects, of course, are lost by women who bar the semen out of the uterine cavity. His views on these points may be more or less fanciful, but their acceptance provisionally seems logical, since they can hardly be disproved, and certainly the deductions drawn from them by Dr. Taylor place in our hands powerful instruments with which to practise "the higher gynæcology."

POTASSIUM PERMANGANATE AS AN ANTIDOTE TO SNAKE VENOM.

The idea that potassium permanganate is to a certain extent an antidote to the venom of serpents is not a new one. Many years ago the veteran ophidiologist, Sir Joseph Fayrer, demonstrated the fact, and the demonstration has been repeated by others. But there have been practical difficulties in the way of a sufficiently prompt use of the remedy to prove efficient in the general run of cases of snake bite. On the strength of Fayrer's observations, Sir Lauder Brunton undertook about two years ago the endeavor to obviate these difficulties, and extensive experiments with Brunton's device have been made by Dr. Leonard Rogers, of the British Indian Medical Service. An article on the subject, under the names of the three investigators mentioned, appears in the *Proceedings of the Royal Society* for May 28th (Vol. lxxiii, No. 494).

"It is evident," the authors say, "that the hypodermic injection of a solution can never be widely employed, because the hypodermic syringe is expensive, it is liable to get out of order just at the times that it is wanted, and the solution may become dried or spilt, or may not be available. It is evident that the first requisite for an antidote to snake poisoning is that it shall be always at hand; second, that it shall be easily applied; and, third, that it shall be cheap."

Sir Lauder Brunton's device for the immediate use of potassium permanganate consists of a wooden case of convenient size with a cap at each end. One of the caps protects a lancet-shaped steel blade set in the middle portion of the case, and the other covers an excavation containing crystals of the permanganate. When a bite has been received, a bandage is applied round the limb, a few inches above the bite, and the bandage is tightened by twisting it after the manner of an old-fashioned tourniquet, thus shutting off the return of blood from the limb for the time being. Then an incision about half an inch deep is made with the blade through and above the wound. The tissues will generally be found discolored by the action of the venom, and the discoloration serves as a guide to the direction in which the incision should be carried. Into the tissues exposed by the cut the crystals of permanganate, to the amount of about fifteen grains, are to be rubbed vigorously, having been previously moistened with a little water or saliva. The rubbing is to be continued until the tissues are blackened.

Experiments on animals show the efficiency of this treatment, but thus far they have been carried on only with dried venom dissolved. We are promised a resumption of the experiments with fresh venom. We think the procedure gives great promise of saving life on a large scale in cases of snake bite.

THE DOG DAYS.

The approach of the hottest season of the year, the popularly reputed connection of heat with rabies, the time-honored epithet of "dog days," which is still believed by a large proportion of the occupants of our various public thoroughfares to form a cognominal index of scientific opinion—all combine each returning summer to give a periodic increment of interest to the popular association of heat and hydrophobia with the *dies caniculares.* There are few better examples before the reading world of the special directions in which an epithet may mislead—more particularly when linked, on each of two widely divergent lines, with a distinct fallacy of equivocation. In the prehistoric centuries, when Egyptian and Chaldean "star gazers" laid the foundations of astronomy upon the data of keen and continuous observations furnished through the medium of a cloudless atmophere, the riotous subtropical imagination of those Oriental regions contributed the decorative embroidery of the same, a certain portion of which survived as the astrology of the succeeding ages, and is even now traceable in scientific nomenclature as well as in the traditional allusions found in general literature. In those golden ages, when the centre of the earth was the fixed centre of a restless universe, it was natural enough that the face of our globe should constitute a sort of microcosmic reflection of the latter, as the minutest concentric sphere has necessarily at the extremity of every radius a point which precisely corresponds to that in which the continuation of the same radius intersects the circumference of the outer globe, however large. And, as the greater may readily be fancied to influence in every way, as well as include, the lesser, the genesis of the idea that all matters terrestrial were necessarily regulated by stellar movements is by no means far to seek.

We are told by Lucian that the earliest "dawn of astronomy" descended—with the mysterious Nile—from Ethiopia into Egypt. The latter country being essentially a product of the annual inundation of the "Father of Waters," it is easy to understand that its inhabitants, whose very existence depended on this phenomenon, would watch with restless care every feature of the physiognomy of Nature which might be suspected of exercising even the smallest influence thereon. And through the cloudless atmosphere of that remote Egyptian territory, on a large portion of whose surface a drop of rain is hardly ever known to fall, there annually appeared at the exact date of the summer solstice an evening vision of the most brilliant of all the fixed stars. According to the position of the observer, this unique item of the heavenly host made its short ascent above the horizon for one, two, three or more evenings—after which it was seen no more till the corresponding date of the following year. Directly after its disappearance the waters of the Nile began to rise, the harbinger of life and plenty to the inhabitants of the surrounding country. It is, accordingly, easy to understand how the native Egyptians, who appreciated, even to adoration, the faithfulness and vigilance of their canine contemporaries, came to associate the idea of the annual appearance of this star with that of the devoted "watch dog's honest bark." Hence the traditional name, whose origin has been long lost sight of by the great majority.

But, as the appearance of the dog star above the horizon ushered in the hottest season of the year throughout a great part of the northern hemisphere, as well as the annual inundation of the Nile, the same luminary became associated in the popular mind with the highest development of atmospheric temperature; hence the epithet of "dog days." The logic of the multitude would appear to have been always the same. Accordingly, in more recent times, we find that "Tenterden steeple caused the appearance of the Goodwin Sands," and a certain microscopic vegetable causes the appearance of a deadly disease. And, as the same hot season is accompanied by the development of the greatest proportion of cases of rabies, we arrive at the almost ludicrous coincidence of dog star and "dog days" with dog madness, which, in the minds of the uneducated of many lands actually became associated as cause and effect! Surely, here is a specimen of duplex equivocation with a vengeance! And this brilliant monarch of the fixed stars must, necessarily, have his influence on the physical state of the human body and on the efficacy of remedies applied in the practice of the healing art. Accordingly, we have the authority of the "Father of Medicine" himself —by aphorism—to the effect that: "πρὸ κυνὸς καὶ ὑπὸ κύνα ἐρνώδεες αἱ φαρμακηΐαι" (*Ante canis ortum, et torrente cane, molestæ sunt purgationes.*—Lefebure deVillebrune's version. "In and a little before the Dog days, Purgations are troublesom."—Sprengell's). Such authoritative pronouncement, couched in such language, proved another peculiarly fertile source of fallacious reasoning for many long centuries. The coincidence of two such physical facts as are found therein indicated once more led the many headed multitude to connect them as cause and effect. That the author never intended such an interpretation is clearly pointed out by Galen, who definitely expresses the opinion that "If the same compute of times and months were observed by all Nations, Hippocrates had never made any mention either of Arcturus, Pleiades, or the Dog star." The reference to a brilliant and well known star was due to the fact that it formed so prominent a mile-stone in the cycle of the seasons, the name being, in this connection, synonymous with the astronomical one of solstice. This source of the popular error is also dwelt on by the celebrated author of the *Religio Medici,* whose comment on the dictum of his medical predecessor, of twenty-one centuries before, may be read with interest even in the present day: "The condition of the disease, and the intention of the Physitian, hold a main consideration in what time and place soever. For Physick is either curative or preventive; Preventive we call that which by purging noxious humors, and the causes of diseases, preventeth sickness in the healthy, or the recourse thereof in the valetudinary; this is of common use at the spring and fall, and we commend not the same at this season. Therapeutick or curative Physick, we term that which restoreth the Patient unto Sanity, and taketh away diseases actually affecting. Now of diseases some are cronical and of long duration, as quartano Agues, Scurvy, etc., wherein because they admit of delay we defer the cure to more advantagious seasons. Others we term acute—that is, of short duration and danger—as Fevers, Pleurisies, etc. In which, because delay is dangerous, and they arrise unto their state before the Dog daies determine, we apply present remedies according unto Indications; respecting rather the acuteness of the disease, and precipitancy of occasion, then the rising and setting of Stars; the effects of the one being disputable, of the other assured and inevitable."

In addition to the several fertile sources of fallacious popular reasoning which we have shown to bear so rich fruit in connection with the "dog star" and its associations, we must, in conclusion, indicate a more comprehensive still—with a parting sigh for the instability of created things; not only the sublunar, but even the supralunar and stellar. In the course of the intervening scores of centuries the effect of the astronomical phenomenon of the "precession of the equinoxes" has emphatically told upon the dates of the ascent of Sirius above the horizon. Accordingly, the solstitial position which thousands of years ago associated it with the idea of a guardian (celestial) watch dog is now deferred to a date many weeks later in the year. The monarch of stars has long ceased to be the guardian of Egypt, the herald of the Nile, the squire of the solstice, the harbinger of summer heat, and—*a fortiori*—to be the efficient cause of canine madness! Verily, verily, many things change beyond the sun, as well as under that luminary!

JOHN KNOTT.

LIGHTNING STROKE ON A LARGE SCALE.

It is with great rarity that one is enabled to observe the effects of lightning on the animal organism on such a large scale as has been studied by Rippe (*St. Petersburger medicinische Wochenschrift*, 1904, No. 2; *Berliner klinische Wochenschrift*, April 18th), who reports that a building occupied by three squadrons of a Russian dragoon regiment was struck by lightning. There were twenty-two men in the building at the time. One man and a horse were killed, and all the others were more or less severely injured. Post mortem examination of the dead man and horse revealed as the most important abnormities hyperæmia of the brain and its membranes, hæmorrhage into both hemispheres, augmentation of the subarachnoid fluid, and congestion of the internal organs, especially the lungs, liver, and kidneys. The symptoms in the survivors were the severest on the part of the nervous system. All the men were rendered unconscious, and in some instances there were convulsions, delirium, and other signs of concussion of the brain. In one there were disturbances of urination attributed to a lesion of the spinal cord; in various others there was partial paralysis of one or more limbs. All these symptoms disappeared.

PROFESSIONAL INFLUENCE ON THE POST OFFICE DEPARTMENT.

Dr. John W. Kyger, of Kansas City, Mo., has called our attention to certain resolutions adopted by the Kansas City Academy of Medicine and by several State medical societies, deprecating the use of the mails for the dissemination of fraudulent and indecent "medical" advertisements. Dr. Kyger thinks that these resolutions, the adoption of which followed the reading of a paper of his before the Kansas City Academy of Medicine, must have influenced the Postmaster General to issue the recent order concerning such publications, and he justly remarks that the profession should be credited with exerting such an influence.

A MODERN MIRACLE.

On Tuesday last Miss Helen Keller received from Radcliffe College a degree equal to that of A. B. of Harvard University. Stricken deaf, dumb, and blind at the age of seventeen months, this remarkable young woman has learned to speak so as to be understood by large audiences and, aided by loving friends, has done more than merely acquire her degree; she has learned to think. Her essay on the drawbacks of college life, written early in her career at Radcliffe, shows extraordinary mental acumen in so young a woman. The results in this case are a veritable triumph of modern science, as will be apparent after a moment's reflection on the ghastly career assured to any one similarly afflicted less than a century ago.

THE NEW PRESIDENT OF THE AMERICAN MEDICAL ASSOCIATION.

There has been no lack of efficient and graceful occupants of the presidental chair of the American Medical Association, especially in recent years, but we venture to say that the president elected at the last meeting, Dr. Lewis S. McMurtry, of Louisville, will bring to bear on the duties of his office such alertness of mind and such courtesy and forbearance as are rarely to be met with in a single individual. We take great pleasure in presenting our readers with a portrait of Dr. McMurtry, a fitting frontispiece to this opening volume.

THE LONGEST WORD IN THE ENGLISH LANGUAGE.

In view of the controversy regarding the longest word in the English language, which is being conducted in several of our lay contemporaries, we beg leave to submit Hepatocholangeioenterostomy as perhaps a little known, but very necessary word, which appeared on page 849 of Volume 79 of the *New York Medical Journal and Philadelphia Medical Journal.*

THE GOVERNMENT SANATORIUM FOR CONSUMPTIVE SEAMEN.

In the article on this subject printed in our issue for June 11th a typographical error made us say that tubercle bacilli were found in only 28 out of 169 cases. What we meant to say was that in only 28 cases were they not found.

News Items.

Society Meetings for the Coming Week:

MONDAY, *July 4th.*—New York Academy of Sciences (Section in Biology); German Medical Society of the City of New York; Morrisania Medical Society, New York (private); Brooklyn Anatomical and Surgical Society (private); Corning, N. Y., Academy of Medicine; Utica, N. Y., Medical Library Association; St. Albans, Vt., Medical Association; Providence, R. I., Medical Association; Chicago Medical Society.

TUESDAY, *July 5th.*—Elmra, N. Y., Academy of Medicine; Ogdensburgh, N. Y., Medical Association; Syracuse, N. Y., Academy of Medicine; Hudson, N. J., County Medical Society (Jersey City); Androscoggin, Me., County Medical Association (Lewiston); Medical Society of the University of Maryland (Baltimore).

WEDNESDAY, *July 6th.*—New York Academy of Medicine (Section in Public Health); Harlem Medical Association of the City of New York; New York Genitourinary Society; Medical Society of the County of Richmond, N. Y. (New Brighton); Bridgeport, Conn., Medical Association.

THURSDAY, *July 7th.*—Brooklyn Surgical Society; Society of Physicians of the Village of Canandaigua, N. Y.; Atlanta Society of Medicine.

FRIDAY, *July 8th.*—German Medical Society of Brooklyn; Medical Society of the Town of Saugerties, N. Y.

NEW YORK.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending June 25, 1904:

	Week end'g June 25.		Week end'g June 18.	
	CASES.	DEATHS.	CASES.	DEATHS.
Measles	464	31	652	15
Diphtheria and croup	455	35	375	50
Scarlet fever	181	21	190	16
Smallpox	1	..	..	..
Chickenpox	57	..	63	..
Tuberculosis	370	171	362	156
Typhoid fever	53	7	32	7
Cerebrospinal meningitis	..	..	..	53
Totals	1.581	265	1,674	297

St. Mary's Hospital, Brooklyn.—The fair, recently conducted for the benefit of this institution, at Jamaica, realized a net sum of $3,100.58.

Major Walter Reed.—The New York *Sun* of June 22nd has an eloquent editorial tribute to the memory of the late Major Reed, of whose discoveries regarding yellow fever, it says, that they are the greatest boon that medical science has given to the world since Dr. William Jenner rescued mankind from the scourge of smallpox.

The Superintendency of Bellevue Hospital.—It is very much to be regretted that Dr. William P. Spratling's appointment, chronicled in our issue for May 21st, has at least been retarded in taking effect by an objection having been brought up on the score of Dr. Spratling's not having taken the civil service examination, which objection is still of questionable validity, the appointing power taking one view of the matter and the civil service examining board the other.

Announcement of the Postgraduate Medical School.—The twenty-third annual announcement of the New York Postgraduate Medical School and Hospital, University of the State of New York, has just been issued. Five hundred and seventy-five practitioners of medicine from forty-five States in the Union, from Canada, Cuba, Hawaii, Japan, Mexico, Newfoundland, Puerto Rico, and Scotland, have attended the lectures. Nine thousand five hundred and sixty-five practioners of medicine have been matriculated at the school since its opening in 1882.

The Late Dr. Grant H. Richmeyer.—At a regular meeting of the Medicosurgical Society, held Friday, May 20, 1904, the following resolutions were adopted:

Whereas, The society has learned with deep regret of the death of Dr. Grant H. Richmeyer on the 21st of April last,

Resolved, That the profession as well as the society has lost a valued member, whose genial character as a man and ability as a physician were esteemed by all his associates; and

Resolved, That a copy of these resolutions be transmitted to his family as an evidence of our respect and of our sincere sympathy in their affliction; and that they be published in two of the medical journals of this city.

ROBERT J. DEVLIN, M. D.,
J. D. NAGEL, M. D.,
HENRY GRISWOLD, M. D.,
Committee.

The Sea Side Hospital of St. John's Guild was opened June 20th for the reception of patients, and the largest number of children and mothers ever received on the opening day of the hospital was admitted. The guild has had visitors at work in the tenement districts, who report a great deal of sickness among the children in the crowded quarters of the lower east side. Accordingly, one hundred and ten patients have been admitted to the hospital. The officers of the guild expect to have the facilities of the Sea Side and Floating Hospitals taxed to their utmost this summer. The tickets of admission to the hospitals of the guild are sent to 1,363 distributing points in the Boroughs of Manhattan and Brooklyn, and are given free to any mother with a sick child. All institutions, physicians, or others coming in contact with sick children are invited to accept a supply of the tickets without charge for free distribution. The office of the guild is No. 501 Fifth Avenue. Its work is dependent on subscriptions.

Advice to Tuberculous Patients.—The following circular of advice for tuberculous patients has been issued from the department of heart and lungs of the Presbyterian Hospital Dispensary: Your improvement and final recovery depend largely on your own conduct. The right way of living must be continued for many months or even years. Before doing anything ask yourself *Will this help me to get well?* Be careful always to burn or disinfect your expectoration. Avoid soiling your person or clothing with it. Never swallow it. Do not kiss anyone on the lips—especially children. Wash your hands and rinse out your mouth before eating. Cough as little as possible. When you cough or sneeze turn your head aside and hold a handkerchief before your face. Spend as much time out of doors as you can. The parks and roofs of many city houses are good places to take the fresh air treatment. Avoid violent exertion of any kind. Whatever makes you short of breath or makes your heart beat fast is injurious. If you have fever take no active exercise, but rest in bed or on a reclining chair. Your bedroom should be the largest, sunniest, and best ventilated you can get. Carpets and curtains are undesirable. Do not occupy dark rooms opening on shafts or in basements. Keep your windows open, but do not expose yourself to draughts. Avoid a stooping position. Keep your shoulders back and head erect. Keep out of crowds and away from dust, dampness, and high winds. Do not wear chest protectors or porous plasters. The underclothing should be woolen throughout the year, but of light weight during the summer. Take a daily sponge bath with brisk rubbing afterward. The bath should not be cold enough to make you feel chilly, but the temperature may be gradually reduced until a lukewarm or cold bath may be taken. If you have fever the bath is best in the afternoon or evening, otherwise the first thing on rising in the morning. Eat as much wholesome, nourishing food as your stomach will digest. From one to two quarts of milk a day should be taken, and in addition, from four to six eggs are desirable. Do not drink wine, beer, or spirits in any form unless prescribed by your physician. If you cough so hard after eating that you vomit, wait a little and eat again—do not lose the nourishment. Smoking is harmful, cigars and pipes less so than cigarettes. If you must smoke, do so only in the open air. Smoke in moderation and do not inhale the smoke into your lungs. Do not take patent medicines, or remedies advised by friends, or advertised as consumption cures. Stop any drug which spoils your appetite or gives you indigestion. However well you may appear to be doing, continue under the regular observation of your physician, and follow his directions faithfully.

PHILADELPHIA.

Philadelphia Health Report.—*The Report on Contagious Diseases, compared with that of the previous week, is as follows:*

	Week end'g June 25.		Week end'g June 18.	
	CASES.	DEATHS.	CASES.	DEATHS.
Smallpox	7	1	5	1
Diphtheria	74	8	54	4
Scarlet fever	62	1	60	2
Typhoid fever	70	7	72	7
Consumption	..	49	..	68
Cerebrospinal fever	..	..	..	..
Totals	213	66	..	..

The Blair County Retreat is the name of a projected new hospital for the care and treatment of the insane. Plans have already been filed.

The Philadelphia School for Nurses held its commencement exercises on June 23rd. The attendance of visitors was so great that about a thousand persons had to be turned away. About 200 nurses graduated.

Methodist Episcopal Hospital, Philadelphia.—Work has been started on a nurses' home, laundry, and other buildings connected with this hospital. The nurses' home will face on Thirteenth Street, and will have parlor, library, office, and matron's rooms on the first floor, the upper floors being devoted to bedrooms. The building will be heated with steam heat and lighted with electricity.

The Women's Medical College Hospital, at Twenty-second Street and North College Avenue, is to be enlarged by the acquisition of property at 333 Washington Avenue, and its adaptation to hospital purposes, thus doubling the present capacity of the hospital. A permit has been issued to cut doorways in the party wall between the buildings in basement, first, and second stories.

Frankford Hospital, Philadelphia. — Miss Letitia Bradley, superintendent and chief nurse, has resigned her position, and her post has been filled by the appointment of Miss Anna C. Garrett, who has recently been in charge of a State hospital at Mercer, Pa. Miss Garrett received her diploma from the Pennsylvania Hospital, in 1896, and was in charge of the medical ward there for five years.

Typhoid and Water Filtration in Philadelphia.—Dr. A. C. Abbott, of the health bureau, said on June 24th: "While the number of cases of typhoid fever is possibly below normal, it must be borne in mind that there is still a large proportion of our citizens supplied with raw water from the Delaware or the Schuylkill, both of which are continuously polluted. This pollution may, at any time, be of a specific nature; that is to say, be of the kind that will cause intestinal diseases. Such pollutions come without warning, and we do not know of their existence until there is a widespread outbreak of disease. It will be interesting to know that up to date the districts receiving the filtered water from the municipal plants have had on an average a little less than one fifth of the number of cases of typhoid fever, as compared with other sections."

GENERAL

Statement of Mortality in Chicago, Ill., for the Week Ending June 25, 1904, compared with the preceding week and with the corresponding week of 1903. Death rates computed on United States Census Bureau's estimated mid-year populations of 1,932,315 for 1904, and of 1,873,880 for 1903:

	June 25, 1904.	June 18, 1904.	June 27, 1903
Total deaths, all causes	393	380	154
Annual death rate per 1,000	10.62	10.28	12.62
By sexes:			
Males	228	212	269
Females	165	168	185
By ages:			
Under 1 year	73	57	68
Between 1 and 5 years	25	27	55
Over 60 years	71	86	101
Important causes of death:			
Acute intestinal diseases	20	24	29
Apoplexy	13	15	12
Bright's disease	34	36	40
Bronchitis	5	10	21
Consumption	64	51	53
Cancer	22	26	20
Convulsions	9	10	2
Diphtheria	5	4	13
Heart diseases	37	30	31
Influenza	..	..	..
Measles	0	2	7
Nervous diseases	17	13	26
Pneumonia	30	28	48
Scarlet fever	..	..	..
Suicide	9	6	7
Smallpox	..	..	..
Typhoid fever	6	3	4
Violence (other than suicide)	31	24	24
Whooping cough	4	4	7
All other causes	87	94	110

Contagious and infectious diseases—diphtheria, scarlet fever, measles, smallpox, typhoid fever, chickenpox, whooping cough, etc.—continue to diminish. Only 70 cases of these were reported during the week, as compared with 82 the week before and 152 during the corresponding week of 1903. One more unvaccinated victim of smallpox was discovered and removed to the Isolation Hospital—probably the last for the present season.

Grady Hospital, Atlanta.—It is proposed to build a $5,000 annex to this institution for the special treatment of inebriates.

Chicago Hospital Property.—A formal transfer of the Chicago Hospital property in Forty-ninth Street, east of Cottage Grove Avenue, from the Chicago Hospital Building Company to the Chicago Hospital for $135,000, has been filed for record in connection with a trust deed by the hospital to the Merchants' Loan & Trust Company for $40,000 for five years at 5 per cent.

South Dakota Board of Medical Examiners.—The next meeting of this board for the purpose of holding examinations for license to practice will be held at Watertown, S. D., on July 13 and 14, 1904. As the board has no agreement at this time by which it will accept certificates from other State boards in lieu of examination, an examination will be required in every instance before license is granted. For further information, address H. E. McNutt, M. D., secretary.

Connecticut State Board of Medical Examiners.—The regular meeting and examination of the board will be held at the City Hall, New Haven, July 12th and 13th. The license or an examination in another State is not accepted by this board (as erroneously stated some months ago). All candidates must be graduates of some reputable medical college. The examination consists of ten questions in each of the following branches: 1, Anatomy; 2, Surgery; 3, Materia Medica and Therapeutics; 4, Practice, Pathology and Diagnosis; 5, Obstetrics and Gynæcology; 6, Physiology; 7, Medical Chemistry and Hygiene. The fee is fifteen dollars. There is no provision for temporary licenses. A general average of 75 per cent. is required. At the March examination 27 per cent. of the candidates were rejected. Charles A. Tuttle, M. D., secretary.

Physicians Required at the Building of the Panama Canal.—Three hundred physicians will be needed in Panama to preserve the health of workmen on the isthmus. This is the preliminary estimate made by Colonel W. C. Gorgas, the chief sanitary officer, who sailed from New York on Tuesday to assume charge of the sanitary works there. These physicians, it is expected, will be drawn from civilian ranks, though quite a number of Government surgeons will have the higher posts. Young and active physicians, just graduated from the hospitals, will be the class from which the commission will draw its recruits for this service. As 50,000 men are expected to be employed on the strip during the work, the estimate of 300 physicians need not be considered as high. Associated with Colonel Gorgas in the work are Major Le Garde, Dr. John W. Ross, Dr. Henry Carter, and Joseph Le Prince, all of whom will assist in the organization of the medical corps for the isthmus.

The Yale University Annual Address in Medicine, by Professor William S. Halsted, M. D., of Johns Hopkins University, on Surgical Training and Teaching, was delivered at College Street Hall, on Monday, June 27th, at 5 o'clock.

Examination for Army Medical Service.—The examination of applicants for commission in the medical corps of the army will be materially modified after July 1, 1904, when the amended regulations governing the matter will go into effect. Immediate appointment of applicants after successful physical and professional examination—the latter embracing all subjects of a medical education—will be discontinued; thereafter applicants will be subjected to a preliminary examination and a final or qualifying examination with a course of instruction at the army medical school in Washington intervening.

The preliminary examination will consist of a rigid inquiry into the physical qualifications of applicants and written examination in the following subjects: Mathematics (arithmetic, algebra, and plane geometry; geography; history (especially of the United States); Latin grammar and reading of easy Latin prose; English grammar, orthography, composition; anatomy; physiology; chemistry and physics; materia medica and therapeutics; normal histology. The subjects in general education above mentioned are an essential part of the examination, and cannot under any circumstances be waived.

The preliminary examination will be conducted concurrently throughout the United States by boards of medical officers at most convenient points; the questions submitted to all applicants will be identical, thus assuring a thoroughly competitive feature, and all papers will be criticised and graded by an army medical board in Washington. Applicants who attain a general average of 80 per cent. and upward in this examination will be employed as contract surgeons and ordered to the army medical school for instruction as candidates for admission to the medical corps of the army: if, however, a greater number of applicants attain the required average than can be accommodated at the school the requisite number will be selected according to relative standing in the examination.

The course of instruction at the army medical school will consist of lectures and practical work in subjects peculiarly appropriate to the duties which a medical officer is called upon to perform. While at this school the students will be held under military discipline, and character, habits, and general deportment closely observed.

The final or qualifying examination will be held at the close of the school term, and will comprise the subjects taught in the school, together with the following professional subjects not included in the preliminary examination: Surgery; practice of medicine; diseases of women and children; obstetrics; hygiene; bacteriology and pathology. General aptitude will be marked from observation during the school term. A general average of 80 per cent. in this examination will be required as qualifying for appointment, and candidates attaining the highest percentages will be selected for commission to the extent of the existing vacancies in the medical department. Candidates who attain the requisite general average who fail to receive commissions will be given certificates of graduation at the school, and will be preferred for appointment as medical officers of volunteers or for employment as contract surgeons; they will also be given opportunity to take the qualifying examination with the next succeeding class.

It is not thought that, for the present at least, the number successfully passing the preliminary examination will be greater than can be accommodated at the army medical school, nor that the number qualifying for appointment will exceed the number of vacancies. If, however, the class of candidates qualifying should be larger than is reasonably thought, the young physicians who fail to receive commissions will not have wasted their time, as the course of instruction at the school, while in a large measure specialized to army needs, is such as will better fit them for other professional pursuits; and, furthermore, they will have received a fair compensation while under instruction.

Admission to the preliminary examination can be had only upon invitation from the surgeon general of the army, issued after formal application to the secretary of war for permission to appear for examination. No applicant whose age exceeds thirty years will be permitted to take the examination, and the authorities at the war department desire it distinctly understood that this limit of age will be rigidly adhered to. Hospital training and practical experience are essential requisites, and an applicant will be expected to present evidence of one year's hospital experience or its equivalent (two years) in practice.

The first preliminary examination under the amended regulations above referred to will be held about August 1, 1904; those desiring to enter the same should at once communicate with the surgeon general of the army, Washington, D. C., who will be pleased to furnish all possible information in regard thereto.

The Medical Department of the Congress of Arts and Science at St. Louis.—We have received the following announcement from the secretary: The plan and purpose of this congress deviate so far from traditional lines that some explanation may be necessary to show how it should interest the medical profession. It is primarily a congress of scholars rather than of specialists. It is divided into twenty-four departments, one of the strongest of which is medicine. Yet it is not intended to be a distinctly medical assemblage, but, as we have indicated, a congress of medical scholars.

The department of medicine is divided into twelve sections, embracing the principal fields covered by the subject. These do not include embryology, anatomy, physiology, or bacteriology—subjects which are embraced in the department of biology, but which, it may be expected, will be of equal interest to medical scholars. The order of proceedings will be most easily understood if set forth in detail.

The department of medicine will be opened on Tuesday, September 20th, under the chairmanship of Dr. William Osler, with two general addresses by Dr. W. T. Councilman, of the Harvard Medical School, and Dr. Frank Billings, of the Rush Medical College. One of these speakers will review the progress of medicine during the past century, and the other will treat its fundamental conceptions.

On Wednesday morning, September 21st, a section of public health will meet under the presidency of Dr. Walter Wyman, surgeon general of the United States Marine Hospital Service. It will be addressed by Professor W. T. Sedgwick, of the Massachusetts Institute of Technology, and Dr. Ernst J. Lederle, formerly commissioner of health of New York city. Communications relating to the subject are also expected from several eminent members of the profession.

A section of otology and laryngology will meet at the same time. Chairman, Dr. Glasgow, of St. Louis; principal speakers, Sir Felix Semon, of London, physician extraordinary to the King, and Dr. J. Solis-Cohen, of Philadelphia.

In the afternoon a section of preventive medicine will meet, under the chairmanship of Dr. Mathews, president of the Kentucky Board of Health. It will be addressed by Professors Ronald Ross, of Liverpool, and Celli, of Rome. Some question has been raised against the advisability of separating these two sections. This separation is, however, of no practical importance, as all interested may equally well attend both.

At the same time with preventive medicine, a section of pædiatrics will meet under the chairmanship of Dr. Rotch, and will be addressed by Escherich, of Vienna, Jacobi, of New York, and others.

On Thursday morning there will be meetings of sections of pathology and psychiatry. The chairmen of these sections are Dr. Simon Flexner and Dr. Edward Cowles. Marchand, of Leipsic, and Orth, of Berlin, accepted invitations to address the section of pathology, but it is not certain whether both will be able to attend. Psychiatry will be treated by Ziehen, of Berlin, and Dana, of New York.

In the afternoon a section of neurology will meet, under the chairmanship of Professor L. F. Barker, of Chicago, and will be addressed by Kitasato, of Tokyo, and Putnam, of Boston.

It seems hardly necessary to enter with like detail into the proceedings of the remaining sections on Friday and Saturday. It will suffice to copy the subjects, chairmen, and speakers from the programme, as follows:

Therapeutics and Pharmacology.—Chairman, Dr. Hobart A. Hare, Jefferson Medical College. Speakers, Sir Lauder Brunton, F. R. S., London; Professor Mathias E. O. Liebreich, University of Berlin.

Internal Medicine, Friday Afternoon.—Chairman, Professor F. C. Shattuck, Harvard University. Speakers, Professor T. Clifford Allbutt, F. R. S., University of Cambridge; Professor William S. Thayer, Johns Hopkins University.

Surgery, Friday Morning.—Chairman, Professor Carl Beck, Postgraduate Medical School, New York; Professor Frederic S. Dennis, Cornell Medical College, New York.

Gynæcology, Saturday Morning.—Chairman, Professor Howard A. Kelly, Johns Hopkins University. Speakers, Dr. L. Gustave Richelot, member of the Academy of Medicine, Paris; Professor J. C. Webster, Rush Medical College, Chicago.

Ophthalmology, Saturday Afternoon.—Chairman, Dr. G. C. Harlan, Philadelphia. Speakers, Dr. Edward Jackson, Denver; Dr. George M. Gould, Philadelphia.

On the general plan of the congress, one of the two principal speakers in each section will treat of the relation of the subject to other departments of knowledge; and the other, of its present problems. Besides the principal speakers, it is expected that each section will receive several brief communications from leading members of the profession in attendance at the meetings.

It will be seen that the division into sections is one of subjects rather than of men. The chairmen and speakers will be different in different sections, but the attendance will be the same, except in the sections holding their meetings at the same time.

It is hoped that this programme will prove attractive to such leading members of the medical profession in America as may be able to visit St. Louis and take part in the proceedings of the congress.

Pith of Current Literature.

BERLINER KLINISCHE WOCHENSCHRIFT.

May 23, 1904.

1. Examination of the Cerebrospinal Fluid for the Diagnosis of Nervous and Mental Diseases, By E. SIEMERLING.
2. Pentosuria as a Family Anomaly, By M. BIAL.
3. Faradaocutaneous Sensibility After the Use of the Hydriatic Measures, By JANSEN.
4. Angina and Ulcerative Stomatitis, By TOEBBEN.
5. Lipomatosis as a Sign of Degeneration, By E. H. KISCH.
6. Hereditary Syphilitic Nephritis in Infants and Immature Fœtuses, By CASSEL.
7. Liver Pulsation and the Compensation of Valvular Disease, By F. VOLHARD.

1. **Examination of Cerebrospinal Fluid.**—Siemerling has examined a large number of nervous and mental cases in this manner. From thirty-eight patients suffering from paralysis, he concludes that lymphocytosis develops early, and is to be accounted among the early symptoms. In cases of cerebrospinal syphilis there is a decided lymphocytosis, but this is absent in neuroses. The withdrawal of the fluid for examination has thus a differential value for diagnosis, since a lymphocytosis points toward a meningitis. The cytology of the cerebrospinal fluid is not yet clear.

3. **Faradaic Sensibility.**—Jansen has found that after the use of steam, there is a diminution in the sensibility of the skin to the faradaic current, which returns rapidly, however, after the use of a cold douche. The same phenomenon was noted after the red light had been therapeutically employed, and it was also seen with the blue light and after the use of the heart coil.

4. **Angina and Ulcerative Stomatitis.**—Toebben reports several cases of Vincent's angina with the finding of the characteristic organism. In one case combined with diphtheria, there were a large number of ulcerations on the gums and cheeks. The author calls attention to the complication of this form of angina with diphtheria.

5. **Lipomatosis and Degeneration.**—Kisch has examined 448 cases of lipomatosis with a view to signs of somatic degeneration. In fourteen very fat young persons, signs of degeneration were invariably found, as also in thirty-two older persons who had been lipomatous from childhood. In juvenile lipomatosis, the author regards diabetes mellitus as a sign of degeneration. If the lipomatosis develops early, diabetes appears regularly between the thirtieth and fortieth years.

7. **Hepatic Pulsation.**—Volhard describes a case of mitral stenosis and tricuspid insufficiency, with a pronounced hepatic and venous pulse and a curious trembling beat of the heart. In a second case, the patient had a most healthy appearance, with a decided pulsation in the liver due to tricuspid insufficiency. The cause is to be sought in a chronic pericardial exudate. The author concludes with Rosenbach's statement that in cases of mitral stenosis, the equilibrium of the circulation is maintained in the lungs, while in aortic insufficiency it is maintained in the capillaries of the peripheral circulation.

ZENTRALBLATT FUER CHIRURGIE.

May 11, 1904.

1. Radical Operation for Hernia by Closure of the Peritonæum, By C. HOFMANN.
2. A Modified Symes's Amputation, By A. V. MOSCHCOWITZ.

1. **Radical Operation for Hernia.**—Hofmann describes his method for the radical operation for hernia, which, he says, assures a cure of the hernia without leaving a funnel of peritonæum. The supporting sutures are inserted, to avoid an eversion of the peritonæum, which may constitute a future hernial sac; and if this contains the spermatic cord, it offers every facility for a recurrence. The author does not have his patients wear a truss after the operation.

2. **Modified Symes's Amputation.**—Moschcowitz has modified this classical operation in this way by removing an octahedron from the fibula, so that a small periosteal flap is formed on the outer surface of the fibula. A similar flap is formed on the tibia by removal of the internal condyle. By this means, the surfaces sawed through can be rounded off and covered with periosteum, so that the usefulness of the stump will be enhanced and, the author believes, it will be free from pain.

May 30, 1904.

1. Operations Under the Observation of Röntgen Rays, By PERTHES
2. Clamps in Gastrointestinal Surgery, By F. HANSY.

1. **Röntgen Rays in Surgery.**—Perthes describes a table by means of which, with the suitable Röntgen ray apparatus, the x rays may be temporarily used during a surgical operation. The apparatus is especially useful during procedures for the removal of foreign bodies.

SEMAINE MEDICALE.

May 25, 1904.

This number is devoted exclusively to abstracts on various subjects from other medical journals.

June 1, 1904.

Primitive Muscular Tuberculosis with Multiple Foci, By LEJARS.

Muscular Tuberculosis.—Lejars details a case in which the lesions appeared in the muscles of the arm and leg; they were well marked tumors, adhering neither to the skin nor to the bone, evidently intramuscular, and hardened when the muscles were contracted. Some were hard, others fluctuated. Operation showed that each swelling was enclosed in an intact aponeurosis. The wounds healed quickly. Microscopical examination showed three varieties, a gumma, a cold abscess, and a tuberculous infiltration. Although, apparently, these lesions are easily curable, we must not forget the strong probability of tuberculosis existing elsewhere in the patient's system. Operation should always be radical.

RIFORMA MEDICA.

May 4, 1904.

1. The Protective Action of Pus Against Fatal Infections, By R. BINAGHI.
2. Percussion Notes of the Thorax Auscultated at the Mouth, By TOMMASO PRODI.
3. Pseudo-tubercle Bacilli in the Secretion of Chronic Purulent Otitis Media, By A. DE SIMMONI.
4. Two Cases of Aortic Aneurysm Improved by Injections of Gelatin, By E. DE SILVESTRI.

1. **The Protective Action of Pus.**—Binaghi found, as the result of numerous experiments, that pus both *in vivo* and *in vitro*, had a powerful protective effect against fatal infections (including tetanus, anthrax, malignant œdema, and staphylococcus). It did not, however, confer a true immunity, inasmuch as it did not prevent a reinfection.

2. **Auscultation of Thoracic Percussion Notes at the Mouth.**—Prodi reminds us that this method of diagnosis was introduced by Cardarelli, in 1870, and is not new, as Czbulski stated two years ago. Cardarelli studied the percussion notes of various parts of the normal chest by auscultating at the open mouth of the patient. He found that the normal lung parenchyma did not give any auscultative sound at the mouth on percussion, but that the larynx and trachea, when percussed with the ear over the mouth, produced a hollow tubular sound. This tubular sound was not obtained at the mouth on percussing over the normal large bronchi, except in rare instances in persons with thin chest walls and in children. This method, according to Cardarelli, is very useful in the diagnosis of cavities in the lungs, especially such as communicate with the large air passages and are close to the chest wall, also in the recognition of consolidation appearing close to a large bronchus, etc. Prodi reports three cases in which this method was useful. He concludes that it should be included in the list of methods for the diagnosis of pulmonary cavities, as the tubular sound is distinct on auscultation over the mouth when an area occupied by a cavity is percussed. In one case an aneurysm of the arch of the aorta and of its ascending portion, compressing the trachea, gave rise to tubal resonance over the mouth when the scapular regions were percussed, especiallv the left. The tumor pressed the trachea backwards. In another case there was a copious serous effusion in the left pleural sac. The auscultation at the mouth showed tubal resonance when percussion was applied in the first two intercostal spaces. There was dulness almost up to the clavicles. As the fluid was absorbed the tubal resonance gradually disappeared. In this case the fluid having invaded the upper part of the chest transmitted the tubular percussion note of the large bronchi and the trachea into the mouth. Prodi did not, however, succeed in obtaining the tubular note at the mouth or percussing over consolidated areas of lung. He attributes this to faulty technics and unqualifiedly endorses Cardarelli's method.

ROUSSKY VRATCH.

April 17, 1904.

1. Wars and Epidemics, By A. V. KORTCHAK-TCHEPURKOVSKY.
2. The Value of Blood Examination in the Diagnosis and Treatment of Disease, By K. I. KOROVETSKY.
3. A Case of Influenza-Meningitis, By TCH. P. TCHEKHOVITCH.
4. The Sanitary Relation of Railroad Transportation of Large Numbers of Emigrants and Laborers (*To be concluded*), By V. I. ZEMBLINOFF.

1. **Epidemics During Wars.**—Tchepurkovsky emphasizes the frequency and extent of epidemics among soldiers in the field, and reproaches Russian private patriotic organization with the fact that only surgical aid is being provided for by these societies, while the importance of medical attendance and of measures of prevention against epidemics is not recognized. The author proves by statistics of various wars in Europe and America how greatly the mortality from epidemics predominates over that directly attributable to military operations.

Referring to the present Russo-Japanese conflict, the author notes that there are grave prospects of epidemic invasions. Both in Manchuria and in Japan two epidemic diseases—cholera and the plague—have occurred recently. These diseases are as common in those regions as malaria is in the Caucasus, and it well known how much the Russian army suffered from the last mentioned disease during the war with Turkey. In the Russian provinces in the Far East (Vladivostock, etc.) there have been epidemics of cholera as late as 1902, and scattered cases occurred as far as Irkutsk and Krasnoyarsk. Finally, typhus fever has been met with along the Trans-Siberian Railway, among the convicts and colonists. The figures for 1903 show that a large number of plague cases occurred in In-Koy (on Liao-dung bay), in Formosa, in Japan itself (Yokohama), in China (Hong-Kong), etc. As regards cholera there were 156 cases in Nagasaki (Japan), from the middle of October to November 4th, and epidemics of cholera have occurred annually in Japan for the past twenty-two years. The same conditions probably obtain in Korea and China. but no trustworthy information is accessible as to this point. It is to be noted that the epidemics of cholera in the Russian Far East coincide always with those in Japan and China.

The author concludes that there is great probability of severe epidemics of cholera and of the plague in the Russian army in the Far East, and points out that typhus is said to have broken out already among the Japanese who have landed in Korea.

BOSTON MEDICAL AND SURGICAL JOURNAL.

June 23, 1904.

1. Some Fermentations in Medical Education, By HAROLD C. ERNST.
2. Preventive Medicine: Its Achievements, Scope, and Possibilities, By HERMANN M. BIGGS.
3. A Contribution to the Pathology of Hysteria Based

Upon an Experimental Study of a Case of Hemianæsthesia with Clonic Convulsive Attacks Simulating Jacksonian Epilepsy,
By BORIS SIDIS, and MORTON PRINCE, assisted by H. LINENTHAL.

1. **Medical Education.**—Ernst's paper was delivered as the annual address before the Massachusetts Medical Society, June 8, 1904. The author treats his subject on very large lines, devoting special attention to the housing and feeding of the medical student and to the best means of providing him with the opportunity to lead a broad university life. The author's suggestions are specially applicable to Harvard University.

2.—Abstracted in our issue of June 18th. Report on the meeting of the American Medical Association.

3. **Pathology of Hysteria.**—Sidis, Prince, and Linenthal assert that the modern views of the pathology of hysteria have not as yet appeared in any of the textbooks on nervous diseases. They report one case of hysterical hemianæsthesia, with clonic convulsive attacks, which serves as the foundation for their elucidation of the pathology of hysteria. The authors affirm that a study of their case: (1) Confirms the work of previous observers in regard to the nature of hysterical anæsthesia. That is to say, the anæsthesia is not due to inhibition of sensory centres or any kind of suppression of their activity; in fact, is not true anæsthesia at all, but is due to a dissociation of consciousness, probably corresponding to a functional dissociation of systems of cortical neurons. (2) Shows the purely functional character of the epileptiform attacks and their origin in dissociated psychic states. (3) Emphasizes the importance of understanding the pathology of the attacks in order to effect a cure. The case history, much abridged, follows: Male, Russian, at the age of sixteen received a severe fright. This caused him to fall and lose consciousness. After his mind became clear it was found that he had right hemiplegia, anæsthesia, and spasms, which lasted for several days. For one week after the cessation of the spasms his right arm and leg remained weak, but he was soon able to resume his work, and he felt as well as ever. Since then every year, about *the same month* the patient has an attack similar in every respect to the original attack, with the only exception that there is no loss of consciousness. The patient came under the observation of the authors at the age of twenty-one, five years after the first attack. The following experiments and observations were made: (1) The anæsthetic hand was placed behind a screen and the patient was told to look in a glass of water and tell what he saw there. Impressions made on the anæsthetic hand gave rise to visual hallucinations symbolically representing the sensory stimuli. Thus for example, when his hand was touched, very lightly, five times, he saw the figure five very vividly and described it in detail. He saw the number written; it looked very large; and he saw it written on the back of a hand. It is perfectly evident that there could be no inhibition of the sensory centres, or suppression of their activity. In spite of the apparent profound anæsthesia pin pricks were felt and perceived as visual hallucinations. (2) In the hypnotic condition the anæsthesia persisted. He was then told he was fifteen years old—that is, he was made to believe that the fright had not yet occurred. He could no longer speak or understand English, he was again in Russia, engaged as a salesman in a little store, had never been in America. Testing sensation, it was found that it had spontaneously returned to the hand. *There was not a trace of the anæsthesia left.* The hand which did not feel deep pin pricks before now reacted to the slightest stimulation. Again told that he was older and that the accident had happened, the hand became again anæsthetic. From such observations as these the authors conclude that the hysterical frame of mind consists in a dissociated condition of the conscious and subconscious mind. To quote: "The pathology of such cases as this and of hysteria in general, consists on the one hand in the dissociation of the mental (and cerebral) processes, and on the other hand in the independent and automatic activity of the disaggregated psychic (and cerebral) states. Dissociation and automatism are the two fundamental processes."

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

June 25, 1904.

1. The Adaptation of Pure Science to Medicine. Chairman's Address Before the Section on Practice of Medicine, By ALEXANDER LAMBERT.
2. Surgical Lesions of the Axillary Plexus, By JOHN A. WYETH.
3. The Matas Treatment of Aneurysm, By J. F. BINNIE.
4. The Carnegie Institution, By J. S. BILLINGS.
5. The Rockefeller Institute for Medical Research, By L. EMMETT HOLT.
6. The Memorial Institute for Infectious Diseases, By FRANK BILLINGS.
7. Research at the Harvard Medical School, By HAROLD C. ERNST.
8. The William Pepper Laboratory of Clinical Medicine, By ALFRED STENGEL.
9. What Can the Services Do for the Medical Profession? By VICTOR C. VAUGHAN.
10. What Can the Medical Profession Do for the Army? By W. C. BORDEN.
11. What Can the Medical Profession Do for the Navy? By CHARLES F. STOKES.
12. What Can the Medical Profession Do for the Public Health and Marine Hospital Service? By WALTER WYMAN.
13. What the Medical Profession Can Do for the Bureau of Animal Industry, By D. E. SALMON.
14. Research Work in the Hygienic Laboratory of the Public Health and Marine Hospital Service. By H. D. GEDDINGS.

NOTE.—All the papers in this issue of the *Journal* were given in abstract in our issues of June 11th and 18th in the report of the meeting of the American Medical Association, as follows:

1.—See this *Journal*, vol. lxxix, page 1166.

2 and 3.—See vol. lxxix, page 1172.

4, 5, 6, 7, and 8.—See vol. lxxix, page 1161.

Symposium. Institutions Doing Research Work for the Science of Medicine.

10, 11, and 12.—See vol. lxxix, page 1165. The Mutual Relations and Duties of the Government Medical Services and the Profession.

13 and 14.—See vol. lxxix, page 1215.

MEDICAL NEWS.

June 25, 1904.

1. Iodine and Mercury to Combat Local Infections, By AUG. STABLER.
2. A Brief Report of Four Years of Genitourinary Work in the Second Surgical Division of Mount Sinai Hospital (*Conclusion*), By HOWARD LILIENTHAL.
4. The Tracheal Traction Test as an Aid in the Recognition of the Asthmatic Lung, By ALBERT ABRAMS.
5. Acute Thyreoidism Following Curettage, By BROOKS H. WELLS.
6. A New Slide Box; Also a Method of Recording Embedded Tissue, By WILLIAM RUSH DUNTON, JR.

1. **Iodine and Mercury.**—Stabler gives Koch as authority for the statement that mercuric iodide in the dilution of one part to 50,000 parts of water is capable of killing most germs. He further asserts that if calomel is given internally and iodine is applied locally, iodide of mercury will be produced at the site of the local application. Clinically, this method of local antisepsis has produced brilliant results in the author's practice. Two chief methods of exhibiting the drugs are advised: (1) For the treatment of mucous membranes: *(a)* Calomel internally. *(b)* With the aid of an atomizer spray the affected surface as often as desirable with the following solution: Glycerin and water, equal parts, one ounce; tincture of iodine, one drachm; a little carbolic acid and belladonna as local sedatives. Even in so serious a disease as diphtheria this method of treatment is very efficient. (2) For the treatment of inflammations under the skin (rheumatic joints, boils, carbuncles, mammary inflammations, etc.): *(a)* Calomel internally. *(b)* Lint soaked in various preparations, containing tincture of iodine as their chief ingredient, is applied locally to the seat of inflammation. The lint is covered with rubber tissue or other protective. Brilliant results from this method of treatment may be confidently expected.

2. **Four Years of Genitourinary Work.**—Lilienthal, while he tabulates the four years' work, considers in detail only the cases operated upon during the year ending December 1, 1903. There were in all, in 1903, fifty-one operations with seven deaths. The histories of twenty-four of the cases are given at length. We will not attempt to give more than two of the author's views: (1) Ureteral catheterization of the supposedly healthy side may do harm, and the author rarely resorts to it. (2) Suprapubic prostatectomy is the operation of choice. As the technics of the operation has much to do with its success, the author gives the necessary steps, as follows: (1) Passing of catheter and washing the bladder, leaving the viscus empty, and attaching a rubber atomizer bulb to the catheter. (2) Incision 2 or 2½ inches long, in the linea alba with retraction of the recti. (3) Inflation of the bladder by an assistant. (4) Retraction of the peritoneal reflection. (5) Insertion of two retraction sutures into the vesical wall. (6) Puncture of the bladder with a narrow-bladed knife and the enlarging of this opening with the dressing forceps. (7) Exploration of bladder and palpation of prostate. (8) An assistant places his finger in the rectum and pushes up the prostate which is now caught firmly with bullet forceps. (9) A sagittal incision of the mucosa and prostatic substance with scissors. (10) Enucleation of the organ with the ungloved finger. (One need not hurry during this important step of the operation. It is better to work a little slowly than too roughly or carelessly. The entire procedure will be found to have consumed not more than, say, from ten to fifteen minutes.) (11) Thorough flushing of the bladder through the wound with hot saline solution. (12) Packing of the prostatic portion of the wound through a very large endoscope or a Kelly's cystoscope inserted into the wound.

4. **Tracheal Test.**—Abrams summarizes his paper as follows: "(1) When the head is thrown forcibly backward, the normal resonance obtained by percussion over the manubrium and lungs contiguous thereto becomes converted into a dull or flat sound. This manœuvre the writer has called the tracheal traction test. (2) The tracheal traction test is positive in health and in all cardiopulmonary affections, but it is negative in cases of idiopathic asthma. (3) The recognition of this test affords a valuable aid in the diagnosis of idiopathic asthma and assists in its differentiation from symptomatic asthma and other spasmodic pulmonary affections which suggest an asthmatic genesis. (4) The manœuvre specified as tracheal traction evokes contraction of the bronchial muscle by stimulation of the pneumogastric nerves. (5) In asthma the tone of the bronchial muscle is so reduced that it no longer responds to vagus stimulation brought about when the neck is forcibly extended on the sternum; hence the tracheal traction test in idiopathic asthma is negative."

5. **Acute Thyreoidism.**—Wells calls attention to the relationship which exists between the thyreoid gland and the sexual apparatus in the female. He then reports the following case: A woman, fifty-three years of age, had suffered for a number of years from a slightly enlarged right lobe of the thyreoid, an excitable, rapid pulse, and a slight tremor. There was no exophthalmos. Curettage of the uterus was found necessary and was performed. Following the operation these symptoms developed: Six hours after, patient flushed, voluble, tremulous. Pulse, 130. Temperature, 100.5° F. Twenty-four hours after, general symptoms more marked. Pulse, 178. Temperature, 99.5° F. The thyreoid became noticeably enlarged. General toxæmic symptoms became manifest. No leucocytosis. Tenth day: General symptoms about as above. Pulse, 148. Temperature, 104.8° F. By the twenty-fourth day the patient began to improve and was considered out of danger.

AMERICAN MEDICINE.

June 25, 1904.

1. Abdominal Pain from Unsuspected Irritation at the Internal Hernial Ring, By CHARLES G. STOCKTON.
2. Primary Typhoidal Cholecystitis, with Calculi, By FRANCIS T. STEWART.
3. The Pathologic Increase of Uric Acid, By E. E. SMITH.
4. Primary Streptococcal Membranous Laryngitis in an Adult, By SAMUEL MCCLINTOCK HAMILL.
5. Lithiomercuric Iodide, By RANDLE C. ROSENBERGER, and JOSEPH W. ENGLAND.
6. The Larynx in Beginning Pulmonary Tuberculosis, By W. G. B. HARLAND.
7. Three Points of Interest Concerning Smallpox and Vaccination, By BERNARD KOHN.

1. **Abdominal Pain.**—Stockton reports twelve cases in which symptoms were produced by irritation at the internal abdominal ring. The author believes that these cases are worthy of study, not so much on account of the severity of the symptoms manifested, as because they may serve to explain the causation of certain abdominal pains which might otherwise be attributed to graver lesions than those actually present, and for the relief of which fruitless laparotomies might be advised. In these cases the chief symptom complained of is pain, generally referred to the lower quadrants of the abdomen, but occasionally appearing in the upper quadrants as well. Sometimes this pain is described as colicky in character, sometimes as a continuous misery; at other times as burning in character and suggesting irritation to the peritonæum. There is rarely localized tenderness, although it sometimes occurs. The anatomical basis for these symptoms is to be found in a slightly over patulous state of the internal hernial ring; not a condition so advanced as to admit of evident and easily recognized protrusion of the intestine or omentum, but one in which a slight bulging may be detected on palpation, when the patient undergoes abdominal strain such as is produced by bearing down or coughing. In all the author's cases complete relief was obtained by wearing a well adjusted truss.

3. **Uric Acid.**—Smith asserts that the suboxidation theory of the origin of uric acid has been out of fashion since the early nineties. At the present time the nuclein theory is in the ascendant. Personally he is not satisfied that all uric acid comes from purin-containing antecedents. At least some, and probably in many instances most, of the pathological increase of uric acid arises from a synthesis of abnormal products of metabolism. Synthetic uric acid may come from another source—that is, from the products formed by gastrointestinal fermentation. "What I do wish to be understood as maintaining is, that while it has been amply demonstrated that the endogenous uric acid excreted under ordinary conditions of health, and which we may designate as the physiologic uric acid, is to a considerable extent, perhaps, derived from nuclein breakdown in destructive metabolism; it has not been demonstrated that the uric acid constituting a pathologic increase is from this source and that a consideration of clinical and experimental data indicates that the pathologic increase in many instances is largely derived from synthetic uric acid formation from pathologic products in the body."

4. **Primary Streptococcal Laryngitis.**—Hamill reports one case in considerable detail. The case was studied carefully by himself and several associates, and a mistake in diagnosis is very improbable. Bacteriological methods proved the diplostreptococcus in pure culture to be the offending organism.

5. **Lithiomercuric Iodide.**—Rosenberger and England assert that the bactericidal action of mercuric salts does not depend solely on the percentage of mercury present. Experiment alone will determine their actual potency. With these considerations in view they made a number of tests of lithiomercuric iodide, which lead them to the conclusion that in lithiomercuric iodide we have a germicide which is very much more powerful than mercuric chloride or the usual mercuric salts in its destructive action on bacteria and their toxines, and that as it contains less combined mercury, it is, therefore, less liable to cause poisoning on absorption.

6. **The Larynx in Tuberculosis.**—Harland reports a few cases, in order to illustrate how much help may be derived by a careful laryngoscopic examination in reaching a correct conclusion with regard to both the diagnosis and prognosis of pulmonary tuberculosis.

LANCET.

June 11, 1904.

1. The Early Diagnosis of Tumors of the Bladder, By C. B. LOCKWOOD.
2. Some Disorders of the Spleen (Lumleian Lectures: III), By F. TAYLOR.
3. A Case of Perforated Gastric Ulcer in a Boy Aged Thirteen Years; Diseased Appendix; Operation; Recovery, By W. W. CHEYNE, and H. WILBE.
4. Two Hundred Cases of Acute Lobar Pneumonia, By J. HAY.
5. Four Cases of Acute Intestinal Intussusception; Operation; Recovery, By F. C. WALLIS.
6. A Case of Acute Inversion of the Puerperal Uterus; Reduction by Taxis; Recovery, By E. O. CROFT, and R. MUSCHAMP.
7. Koplik's Spots in the Diagnosis of Measles, By J. C. MUIR.
8. A Case of Renal Abnormality, By R. BUTTERWORTH.
9. An Unusual Case of Muscular Atrophy, By W. L. BROWN.
10. The Waters of Chatel Gûyon, By S. TAYLOR.

1. **Bladder Tumors.**—Lockwood divides tumors of the bladder into innocent and malignant: the latter are comparable to epitheliomata, and pursue a similar course of growth, degeneration, and ulceration of the growth, hæmorrhage, sepsis, and infection of the neighboring lymphatic glands and ultimately of other organs of the body. The diagnosis of a tumor of the bladder in its early stages is one of the simplest and easiest feats of surgery when the endoscope is used.

But an anæsthetic should always be used, and the same principles of asepsis should be observed as in a major operation. The presence of pus or blood is a serious obstacle, but pus can be washed away, and hæmorrhage can sometimes be checekd by the use of a one per cent. solution of hamamelis or adrenalin. If a papilloma is seen, it should be removed, the two main counter-indications to operation being the presence of sepsis or the growth being so large that it can be palpated above the pubis or per rectum. It is essential that the operator should see what he is doing: so the operation must be suprapubic and an electric head lamp should be used. Retraction of the edges of the wound is best done by silk ligatures passed through the wall of the bladder. The tumor should be removed like any other malignant growth, with a wide margin of sound, healthy tissue around it. This is not difficult, as the mucous membrane of the bladder is very loose. It is often possible to find the blood vessel supplying the tumor, in which case it should be tied at once. If the bladder is septic it should be drained; Guyon's drainage tube is the best.

2. **Diseases of the Spleen.**—Taylor, in his concluding Lumleian lecture, discusses the condition of the spleen in anæmia pseudoleucæmica infantum, Hodgkin's disease, leucocythæmia, chronic cyanosis with polycythæmia, and chloroma. He concludes that the spleen has been more sinned against than sinning; that it is rarely responsible for the lesions which it suffers, or for the complaints with which it is associated; that in the various infective disorders, in splenic anæmia, and in infantile anæmia it is probably poisoned from without; that in the different forms of leucæmia it is overcharged with the excess of leucocytes; and that only in splenic anæmia as yet is the charge seriously made against it, that itself having been poisoned from the bowel, it subsequently inhibits by fresh production of poisons the formation of the blood. It is in these diseases that good results have sometimes been obtained by splenectomy, though it must be admitted that death has sometimes taken place shortly after the operation. In the other cases the primary condition must be treated, and in so far as that can be controlled or will spontaneously recover, the enlargement of the spleen may be expected to subside. In splenomedullary leucæmia considerable reductions in size of the enlarged spleen have occurred under arsenic, and sometimes under inhalations of oxygen, but a relapse appears in this disease to be almost inevitable. The spleen has also been extirpated for malarial enlargement, four out of six cases recovering.

3. **Gastric Ulcer.**—Cheyne and Wilbe report the case of a boy aged thirteen years, who was successfully operated on for perforation of a gastric ulcer. There is no record of perforation of the stomach in a male at such an early age. In this case the ulcer was typically a peptic ulcer, not tuberculous. As the symptoms pointed somewhat towards the appendix, and on account of the great rarity of the actual condition, the appendix was cut down upon first, and was found to be diseased, but not perforated. The presence of free gas in the abdomen made it certain that perforation of some other hollow viscus had occurred. The absence of fæcal matter pointed to the stomach, which search confirmed. But the ulcer was situated so high up and was so difficult of access that its presence was nearly overlooked.

4. **Pneumonia.**—Hay's paper is based upon the observation of over 200 cases of acute lobar pneumonia. Of a series of 150, 61 died—a mortality of 40.5 per cent. One third of the fatal cases (21) were moribund on admission, and died within twenty-four hours. A history of alcoholic excess was obtained in 43 per cent. of all cases, and 57 per cent. of the fatal cases were alcoholic. The general clinical signs were found to be of more importance in diagnosis than the local physical signs. Diminution of the breath sounds over the affected area was found to be one of the most important of the early signs. In central pneumonia the signs appear slowly, and are first to be made out in the axilla. Signs of cardiac failure are the danger signals in pneumonia: the times of strain are during the onset of hepatization, and at the height of the toxæmia. The most serious lesions are those which attack the myocardium. Mitral disease was present in eleven cases, and seemed to have but little effect on the course of the pneumonia. Pericarditis, however, was a most serious complication: of nine such cases, six died. A soft compressible pulse with poor percussion wave early in the disease was of bad omen. As long as there were no signs of toxæmia or cardiac failure, careful dieting and good nursing were all the treatment required. Sleeplessness, delirium, and distention of the abdomen were among the gravest conditions to be dealt with. Sleep must be obtained, even if morphine has to be used. Morphine is also the last resort in cases of violent maniacal delirium. Distention of the abdomen is best relieved by repeated doses of some antiseptic, and the use of turpentine enemata. The author is not a believer in the use of alcohol. Of 150 cases, 47 were treated without alcohol and 103 with alcohol. Of the former 14 died, a mortality of 29 per cent.; of the latter, 47, or 45 per cent. The drugs used to prevent or counteract cardiac failure were four: strychnine, digitalis, caffeine, and ammonium carbonate. The continuous application of icebags to the abdomen is also warmly recommended.

5. **Intussusception.** — Wallis reports four cases of acute intestinal intussusception in children, in which prompt operation resulted in recovery. The other methods of reduction (by water, gas, air, etc.), should not be attempted, and only waste valuable time. Early diagnosis is necessary for successful treatment. Vomiting and the passage of blood stained mucus are sufficient indications for the giving of an anæsthetic, when, if any tumor be present, it can readily be felt.

7. **Koplik's Spots.**—Muir reports a series of eleven cases of measles in all of which Koplik's

spots were present. In many of them a certain diagnosis would have been impossible apart from their presence.

8. **Single Kidney.**—Butterworth reports the case of a man, at whose post mortem there was found only a single kidney, firmly fixed, situated in the middle line. The upper end just overlapped the bifurcation of the abdominal aorta and the main portion lay between the two common iliac arteries. It was approximately the size of a normal kidney.

BRITISH MEDICAL JOURNAL.

June 11, 1904.

1. Cancer of the Pancreas, By Sir L. Brunton.
2. The Modern Pursuit of Novelties in Medicine, By Sir D. Duckworth.
3. The Organization of the Home Treatment of Pulmonary Tuberculosis, By R. W. Philip.
4. Pregnancy After Removal of Both Ovaries for Dermoid Tumor, By W. A. Meredith.
5. Notes on Experiments to Determine the Relative Efficiency of Some Surgical Dressing Materials, By A. N. McGregor, and R. Ramsey.
6. A Bacteriological Inquiry Into the Sterilization of Hands, By J. R. Collins.
7. Further Observations on the Therapeutic Value of Radium and Thorium, By J. M. H. MacLeod.

1. **Cancer of the Pancreas.**—Brunton reports two cases of cancer of the pancreas, in both of which the condition was diagnosticated with relative certainty during life. One occurred in a woman aged forty-four years, and the other in a man aged fifty-four years. Both presented the symptoms indicative of the condition: (1) The deeply seated, very severe pain; (2) the progressive emaciation; (3) the absence of signs indicating gastric cancer, there having been no vomiting; and (4) the jaundice occurring without a history of biliary colic. In only one case was an epigastric tumor palpated. In one case, although the head of the pancreas was involved, yet a pancreatic duct remained free and some pancreatic juice entered the intestine, so that Fitz's test (the splitting up of salol into phenol and salicylic acid, and the presence of the former in the urine) would have been positive and the diagnosis of cancer been made very doubtful. There was no glycosuria. The most important and trustworthy sign of the condition is the very rapid emaciation. Medical treatment in these cases was of no avail, and operation would have been fruitless.

3. **Pulmonary Tuberculosis.** — Philip discusses the question of the home treatment of pulmonary tuberculosis, and states that it is a definite issue which has, as yet, not been adequately conceived or faced. In the solution of the problem a plan of supervised home relief (financial, etc.), must play a chief part. The author relates his experiences in Edinburgh in connection with the Victoria Dispensary for Consumption, and programme of home relief carried out there. A complete organization against pulmonary tuberculosis for any large city must include: 1. A home for dying patients, chiefly in the interest of others. 2. A sanatorium or sanatoria for selected patients who, with a view to the cure of the disease, require a special régime not procurable in their own homes. 3. Colonies for the after life and supervision of patients in whom the disease has been sufficiently arrested to make selected open air employment feasible and desirable. 4. A tuberculosis dispensary for treatment, instruction, and financial relief of patients residing at their own homes.

4. **Pregnancy After Ovariotomy.**—Meredith reports the case of a woman aged thirty-five years, both of whose ovaries were removed for double ovarian cystoma, probably dermoids. Both tumors were removed, the elongated pedicles which included the Falloppian tubes and ovarian ligament being tied and divided as far as possible from their uterine extremities. Yet eight months later the patient began to menstruate, and eleven months later she became pregnant, miscarrying at the fifth month as the result of a fall. There must have been an outlying portion of ovarian tissue in connection with the uterine extremity of one of the ovarian ligaments.

5. **Surgical Dressings.**—McGregor and Ramsey reach the following conclusions as to the relative efficiency of surgical dressings: 1. The most suitable drainage material for the conveyance of fluids with solids in suspension is dry boric lint; cellulose wadding is almost as efficient, but its friability renders it unsuitable for drainage purposes, unless enclosed in a gauze envelope. 2. The best covering materials for the speedy removal of the discharge from the distal end of the drain are cellulose wadding and gauze. 3. The covering material should be sufficient in amount to continue in action as long as the drain, and prevent saturation of the latter. 4. As the blocking of the drain takes place in four to eight hours, a more frequent dressing than usual is indicated.

6. **Sterilization of the Hands.**—Collins's experiments on sterilization of the hands lead him to conclude that with sufficient time and care sterilization of the skin is not impossible. The nail brush used should be either boiled before use, or, better still, kept always in an antiseptic solution. Vigorous scrubbing is required for at least five minutes, and the water should be as hot as can comfortably be borne. Chemical antiseptics of efficient strength should be used for cleansing the skin, and it is preferable that they should be used in the primary washing as well as in the final soaking.

7. **Radium and Thorium.**—MacLeod states that the chief utility of radium bromide is in the treatment of rodent ulcers; when they are small it works like a charm, but when larger than a shilling, x ray treatment is more practical. In lupus vulgaris with a very small lesion, radium causes the disappearance of the granuloma and its replacement by healthy scar tissue. In lupus erythematosus its value seemed to be negligible, and the results in cases of epithelioma were also disappointing. Thorium was tried in two cases of lupus vulgaris, but though used in large quantity it had no appreciable effect.

AMERICAN MEDICAL ASSOCIATION.

Fifty-fifth Annual Session, Atlantic City, June 7, 8, 9, and 10, 1904.

SECTION ON GENERAL MEDICINE.

SYMPOSIUM ON GALLBLADDER DISEASE.

Third Day, Thursday, June 9th.

Ætiology of Cholecystitis and Cholelithiasis.—Dr. Walter L. Bierring, of Iowa City, Ia., in his consideration of this subject, said it was necessary to recognize that this viscus constituted one of the most vulnerable points for infection in the abdominal cavity, and in this respect was analogous to the Falloppian tube and the appendix, in which latter structure, infective agents were more or less constantly present in its lumen normally, while the gallbladder was generally free of microorganisms; furthermore, infection of the gallbladder concerned itself more with the contents than the walls, the sterile bile becoming a culture medium for microorganisms, while in appendix infections the coats were more prominently involved. The liability of the gallbladder to disease was due mainly to its position between the bacterial hordes of the intestine and the liver, exerting a very important rôle in the immunity possessed by the liver. Results of experimental infection demonstrated that a great many pathogenic microorganisms flourished in the bile quite vigorously, though at one time the bile was supposed to act as a bactericide. Clinical and experimental observation showed that infection occurred in two ways: (1) by way of the blood, descending or hæmatogenous; (2) ascending, or by way of the common bile duct. The effects of stoppage of the bile by gallstones or foreign bodies favored the growth of bacteria. The ætiological relation of cholecystitis and cholelithiasis had been found to be so close that that which pertains to the ætiology of gallstones would be contributory, and in most instances causative of cholecystitis. Cholelithiasis, he said, was very rare in early adult life, occurring more frequently after the age of forty years. It was far more frequent in women than men—child bearing, tight lacing, sedentary habits and constipation probably explaining this fact. From the accumulated experimental and clinical knowledge of the pathogenesis of gallstones, Dr. Bierring made the deduction that while the essential cause usually was cholecystitis, there were other factors at work besides infections, and special consideration should be given to infectious diseases and states of altered metabolism which promoted a change in the quality of the bile chemically, so as to constitute an irritant. Cholecystitis and cholelithiasis he believed to be secondary affections and, if it were possible to eliminate such influences as age, improper wearing apparel, lethargic habits, constipation, and gastric and intestinal catarrhal disorders, cholelithiasis would soon become a very rare disease.

Diseases of the Gallbladder and Bile Ducts, in Relation to Diseases of the Gastrointestinal Tract.—Dr. Bertram W. Sippy, of Chicago, read this paper, and said that, owing to the close anatomical proximity of the gallbladder and bile ducts to certain portions of the gastrointestinal tract, disease of one of these structures might be readily transmitted to the other. Disorders of the stomach and intestine arising from disease of the gallbladder and bile ducts he divided into those of nervous or reflex origin, and those due to a direct extension of the anatomical disease. Of the nervous disorders he said the functional activity of the stomach and intestine was influenced in a reflex way by disease of the biliary tracts, but no serious permanent effect was likely to result, while the direct extension of anatomical disease from the bile tracts to the stomach and intestine might be fraught with most serious consequences. From personal observation and study he had found that pyloric and duodenal obstruction from cholecystitis was serious when coexistent with pyloric stenosis. In reference to the management of duodenal and pyloric obstruction arising during, or immediately following, an attack of cholecystitis, his advice was not to operate until the potency of the pylorus was tested by rest and rectal feeding, except in those cases in which immediate operation was necessary, on account of the seriousness of the local inflammation, when operation should be directed to relieving local inflammation. Gastroenterostomy should rarely be performed at the same time, except when there was evidence of old pyloric or duodenal obstruction. If the obstruction did not diminish with rest and rectal feeding, operation for cholecystitis might be combined with gastroenterostomy if the condition of the patient permitted. He had found great difficulty in differentiating ulcer of the stomach from gallstones at times. Gallstones usually passed from the gastrointestinal tract with the fæces, but a stone might occlude the lumen of the bowel sometimes, with fatal results. The most common seat of obstruction was near the ileocæcal valve. He had found it of great value in diagnosis to remember that there was not a single symptom in gastric or duodenal ulcer that might not be present in cholelithiasis and vice versa. In conclusion, he said that in the majority of cases a fairly accurate differential diagnosis could be made between the two conditions by carefully studying the whole clinical picture. Mistakes might occur when evidence was faulty or incompletely elicited, or when too much stress was laid upon some individual symptom.

Diagnosis of Cholecystitis and Cholelithiasis.—Dr. Parker Syms, of New York, enumerated the important diseases of the gall passages. They were: (1) inflammatory disease of the gallbladder and gall ducts with or without stone; (2) gallstones in the gallbladder and gall ducts, with or without inflammation; (3) inflammatory condition of the region surrounding the gall passages causing obstruction by pressure or distortion; (4) neoplasm of the gall passages, benign and malignant, with or without gallstones, and with or without inflammatory disease. The prominent symptoms produced by gall passage disease were: pain, tenderness, fever and chills, vomiting, change of pulse rate, collapse, tumors, jaundice, urinary changes, blood changes, stools. The pain was colicky, occurring most often when the stomach was empty; tenderness was localized, he said, to the region involved, which was usually opposite the juncture of the ninth rib with its costal cartilage; fever was of an acute type, rapidly subsiding as it rose; vomiting was of a reflex character, coming on with the pain and independently of nausea; pulse was accelerated and tension increased; collapse occurred in severe attacks; tumor might be felt below the free border of the ribs; jaundice might be present or absent, depending upon the amount of obstruction to the flow of bile into the intestine; urinary changes were of interest in determining the presence and degree of jaundice; blood changes also aided in determining the presence and degree of jaundice, and the amount of leucocytosis aided in determining the presence of suppuration; stools showed the presence or absence of bile; so far x ray examinations had been unsatisfactory. Bile passage disease should be distinguished from the following conditions: gastric ulcer, appendicitis, renal colic, pancreatitis, phlebitis portalis, angina pectoris, empyema, subphrenic abscess, malignant disease of the pylorus, duodenum, pancreas, liver, kidney, etc., all of which he described. For the purpose of aiding in a more accurate diagnosis and estimate of the conditions present, the author embodied a diagnosis chart of diseases of the gallbladder and ducts.

The Treatment of Cholecystitis and Cholelithiasis.—Dr. LUCIUS W. HOTCHKISS, of New York, called attention to the growing tendency to place diseases of the gallbladder and bile ducts within the category of surgical affections, thus establishing the foundation of rational treatment. This treatment he divided into two classes: First, the medical, or palliative; and, second, the surgical, or radical and curative. He quoted the opinions of experimenters, some of whom believed that gallstones might be dissolved by administering sodium glycocholate, or alkalies and bile salts with a rich diet. The treatment by olive oil had not fulfilled the hopes of its discoverer as a specific. Hence the rationale of the treatment which aimed to relieve congestion, and increase the flow of bile, he stated, was perfectly sound. In the treatment of the disease he believed the great point to be determined was the border line between balneological and surgical procedures, i. e., when the former should cease and the latter be begun. He believed that as greater certainty in diagnosis was reached there would be less call for the more difficult and dangerous operations upon the common duct and a decreasing number of cases requiring cholecystenterostomy. The danger in operation lay principally in delay. Choledochotomy, choledochectomy, choledoenterostomy, he thought were possible only in rare conditions, and operations upon the hepatic duct were still in their infancy. Reference showed that American surgery had played no unimportant part in the pioneer work of the operative treatment of gallstone disease, and in the later developments of important modifications in technics. Consideration of the treatment of certain cases showed that cases seen in the first mild attack quickly subsided under medical treatment; cases seen in subsequent mild attacks were ideal ones for cholecystectomy; cases with repeated severe attacks in which cholecystotomy was always justifiable and the operation of choice; cases which for a few days showed evidence only of mild local infection, suddenly developed signs of peritonitis and sepsis which required early operation; cases of common duct obstruction by calculus, in which it was advisable to treat expectantly for a week or two. He said, in conclusion, that the treatment in these cases must ultimately be surgical, and it must be admitted that medical science had discovered no sure solvent for gallstones or devised any means other than surgical for the drainage of the gallbladder and biliary ducts.

Ergot in General Practice.—Dr. ALFRED T. LIVINGSTON, of Jamestown, N. Y., aimed to demonstrate in his paper that inefficient tone of unstriated muscular fibre was a common and serious element of disease; that it was important to guard against or to correct such abnormal state of that tissue. His secondary object was to indicate a drug which would accomplish the work desired. The abnormal disturbance of blood distribution depended, he thought, upon a relaxed state of the muscular coat of the blood vessels. The location, degree, and persistence of such vascular relaxation, together with the influence of irritants or ætiological factors, determined a variety of diseases, most of which would not occur if there was a good degree of tone in all vascular walls. A relaxed state of unstriped fibre in the bowel and other hollow organs produced disorders indicating a stimulating or toning of unstriped muscular fibre. He made the statement that only a small percentage of humanity had a good state of tone of all the unstriped fibre of the body, thus being more subject to disease. The author classified his subject under the head of disorders of blood vessels, speaking first of inflammation of the arteries, veins, and lymphatics for which affection his prescription was rest for two to five months and daily injections of ergot; septic inflammation of veins and lymphatics had repeatedly yielded to treatment. The serious and fatal elements of febrile diseases were treated in detail. He said the evidence afforded by the action of ergot in shock was that the condition was not so much a paralysis of vasomotor centres, as a tremendous disturbance of the equilibrium of the circulation, and the indication was, therefore, primarily, to contract these dilated and engorged vessels and again to establish an active circulation; ergot was the agent that would do this. From all that he had said, it would be recognized that he regarded the toning of relaxed unstriped muscular fibre as important in a great variety of diseases, and of vital import in many instances. Ergot would do this he asserted.

Dr. J. O. STRANAHAN, of Rome, N. Y., spoke of the excellent use of ergot in the insane institutions of New York.

Dr. HERMAN GRAD, of New York, reported the excellent results he had obtained from the use of ergot before, during, and after surgical operations, in greatly relieving the nausea and vomiting which so often followed the administration of anæsthetics.

Dr. James J. Walsh, of New York, referred to the cases in Dr. Wakefield's service in which ergot had been of great value. He referred to a certain relaxation of the blood vessels in the abdominal region and said that the general observers had asserted that two thirds of the blood of the body could be contained in the abdominal vessels. Therefore, in certain cases, by toning up the abdominal vessels, as by the administration of ergot, the circulation could be made better.

Dr. Alexander Lambert, of New York, said that last year there had been over 8,000 cases of alcoholism at Bellevue Hospital, and that while the death rate in nine years had been about 3 per cent. in those patients with a wet brain condition, etc., he had been able to reduce the death rate by ergot, 44 per cent.

The Differential Leucocyte Count as an Aid to the Diagnosis of Fevers.—Dr. W. Krauss, of Memphis, Tenn., read this paper and presented the following conclusions: (1) It is not so much the absolute increased per cent. of large lymphocytes which is diagnostic of malarial infection as the relative increase over the small lymphocytes. (2) In cases of malarial infection without much fever and without quinine history, the multinuclears are markedly diminished and the large lymphocytes very much increased in proportion. (3) In the absence of an adenopathy, possibly also of influenza and measles, the above finding is positive evidence of present or very recent malarial infection. (4) During the rise of a malarial fever or as a result of quinine therapy, the multinuclear leucocytes may reach 80 per cent., but in that event the large lymphocytes exceed in number the small ones. (5) In malarial hæmoglobinuria any of the various blood findings characteristic of malarial fever may be present in any stage, and there is no evidence now at hand to explain this. (6) Malarial and typhoid fevers can be more positively differentiated from fevers of sepsis, pneumonia, rheumatism, malignant tumors, etc., by the differential leucocyte count than by the hæmocytometer, and it can be done on dried films, away from the bedside. (7) Malarial infection makes a strong impress upon the leucocytic relation, no matter what other disease it is associated with. (8) It is not safe to rule out typhoid fever when the malarial variation is found, but, as it calls for antimalarial medication, the therapeutic test may decide before a Widal would appear. (9) In a gradually developing fever, the absence of marked increase in large lymphocytes or multinuclears during the first week justifies a preliminary diagnosis of typhoid fever.

The Pathogenesis of Uræmia and Eclampsia.—Dr. Robert N. Willson, of Philadelphia, presented this paper, and offered the following conclusions: (1) That it is probable that there are at work in the cerebrum as well as throughout the system of uræmic subjects, at least one, and probably several toxic substances, which exert their influence more or less locally upon the cortex. (2) That it is equally certain that other portions of the brain than the cortex are also acted upon, as in the production of coma, etc. (3) That no small part in the production of the uræmic and eclamptic condition is played by intracranial pressure, due to a temporary excess of fluid, whether acting independently of, or in conjunction with, the toxic substances already mentioned. (4) That lumbar puncture will at least temporarily relieve certain of the symptoms most readily ascribed to localized intracranial pressure; and that cases in which pressure is the main factor, drainage of the spinal canal may save life. The procedure, together with free bleeding, purging, and diuresis, should be added to our routine treatment of the condition. (5) That transfusion of normal salt solution by intravenous injection or hypodermoclysis, except in cases anuria or a greatly diminished urinary secretion, is contraindicated, as tending to increase the liability to saturation of the tissues. (6) That the results of lumbar puncture in the three cases cited in the paper would not warrant the assumption that relief of intraspinal or intracranial pressure could alone be depended upon to cure the uræmic or eclamptic condition, provided the toxic influence was a prominent one in a particular case.

Dr. James Tyson, of Philadelphia, thought that we must consider some toxic agency responsible for the phenomena.

Dr. Alexander Lambert, of New York, said that in eclampsia the lesions noted were often identical with those of acute yellow atrophy of the liver.

Dr. Robert N. Willson, of Philadelphia, emphasized the fact that when bloody fluid was withdrawn by lumbar puncture, the cases terminated fatally, whereas if clear fluid was obtained patients could recover.

Amœbic Dysentery: Its Local Lesions and Treatment.—Dr. James P. Tuttle, of New York, read this paper. His paper was based upon personal experiences of 74 cases of amœbic dysentery, together with what he had gained from literature. The cause of the disease was the infection or invasion of the colon by the *Amœba dysenteriæ.* At about the temperature of the body the life of the amœbæ was indefinite, but if the temperature got below 70° F. the motility and life of the amœbæ became extinct, and no amount of heat would restore the same. He said the whole treatment should be directed toward the local lesions, the destruction of the amœbæ, and the prevention of a redevelopment from the spores, and as these were buried in the tissues, it was evident that superficial washing or flushing of the intestinal canal would not destroy them. It was found that simple cold water served every purpose in destroying the amœbæ. The patient was placed in the knee-chest posture, and the bag or fountain was elevated not more than three feet above the level of the hips and the fluid was allowed to run in slowly, the amount of water used being limited only by the tolerance of the patient. Local ulcers of the rectum and sigmoid were treated by local measures. Recognizing the fact that the appendix might be the seat of amœbic infection, he said it would be wise to remove this organ in those cases in which the appendix was utilized to introduce the cold water into the large intestine. In 73 cases treated by this method cures resulted in 70 cases.

Dr. Fenton Turck, of Chicago, called attention to the futile attempts to destroy the amœbæ, for it had been his experience that the various solutions had little if any effect upon them. He referred to the use of oil which acted as a powerful irritant, excited peristaltic hyperæmia, and had more or less effect upon the plasmodium. It was his plan to use hot water, starting with a temperature of 115° F. and gradually raising it to 131°. After every treatment the amœbæ disappeared. This then was followed by the use of ice water, and the results he obtained were far better than if he had used the ice water alone.

Dr. A. W. Warden, of Union Hill, Weehawken, referred to the beneficial results that he had obtained from the use of chaparro or nargoso.

The Family Physician as a Factor in the Solution of the Tuberculosis Problem.—Dr. S. A. Knopf, of New York, read this paper, and after referring to the conception of the family physician, said that he should be carefully trained in the early recognition of pulmonary tuberculosis, and should make calls at regular intervals whether the family was ill or not. The importance of periodical examination of the chest of each member of the family was dwelt upon, and the inauguration of necessary preventive measures at the slightest indication of predisposition to tuberculosis. He appealed for more sanatoria, more special hospitals, better tenement buildings, etc., all of which were of much value in the eradication of this disease, particularly before another generation had passed. The family physician should be not only the medical adviser, but also the friend of the family, and it was the family physician and friend more than any other person who would be able to prevent the marriage of a consumptive or between consumptives.

Has Influenza Been a Causative Factor in the Increase of Appendicitis?—Dr. Philip Marvel, of Atlantic City, referred briefly to both influenza and appendicitis, and gave a statistical review of the periods from 1884 to 1894, and from 1894 to 1904, as copied from the Episcopal Hospital and from the Pennsylvania Hospital. Comparison of these periods showed a great percentage increase of appendicitis in the latter period, and also the greater increase over all of the more important pelvic and abdominal inflammatory diseases reported in the former period. The rapid increase was not satisfactorily explained through our better knowledge of diseases. He made certain suggestions and abstracts, and said that whether they would enable us to arrive at fixed conclusions, did not effect the following deductions: (1) That appendicitis had increased in the past five years much more rapidly than in either of the previous five year periods studied. (2) That the accessory cavities were more frequently attacked, and when diseased, more likely to be aggravated by influenza than by other diseases. (3) That there was more than a possibility of the existence of chronic interstitial influenza, therefore a probability of its causative relation to appendicitis. (4) That the observations as set forth in the abstracts referred to, must be admitted as a measure of proof in favor of the inferences drawn and the conclusion arrived at.

SECTION ON SURGERY AND ANATOMY.

Second Day, June 8th, Afternoon Session.

Brief Discussion of the Surgery of the Biliary Tract, With Special Reference to Drainage.—Dr. M. H. Richardson, of Boston, said that the subject had been discussed before this section four years ago, and he had come with the avowed intention of finding out whether the sentiments then expressed had undergone any material change. He submitted that immediate closure after any operation upon the bladder or its ducts or both was fraught with the utmost danger. Secondary operations were almost always of a serious nature, and no matter what the technics employed, every surgeon was bound to have a few of these unpleasant complications to meet. Nevertheless, such secondary operations, if drainage had been employed and the gall bladder had been left in place instead of having been removed, as at one time was freely advised and practised, were of a nature much less serious and difficult of execution. He reached the following conclusions, which were the outcome of his last four years of work: First, stones should be removed when the were known to exist—this being determined by operation for other conditions—unless there was some local contraindication for such removal. Secondly, drainage should be thorough and must be maintained until all bile ceased to flow. The patient was not in danger so long as bile was freely discharging through the drain tube. His condition was even better if it could be shown that not alone was this happening, but that some bile was also passing into the intestine. Thirdly, to avoid the possibility of hernia at the site of operation, he recommended a muscle splitting operation resembling the " gridiron." Fourthly fistula formation meant obstruction of the common duct, probably by an overlooked stone.

Gallstones in the Common Duct.—Dr. A. MacLaren, of St. Paul, stated that gallstones were first formed in the gallbladder and were usually associated with recurring chronic cholecystitis, it being clinically a fact that such cystitis was exceedingly rare in the absence of stones. One begat the other. Robson's statistics, to the effect that one out of five cases of cholelithiasis had a stone lodged in the common duct, or those of the Mayo Brothers, whose proportion was one in seven, were none to high. The ancient teaching, that an attack of biliary colic meant the passage of a stone into the intestine, was chimerical, as he had found but one solitary case in which this was known to have occurred. He spoke of the interesting analogy which existed between the pathology and anatomy of the appendix and the gallbladder, and stated that this furnished an important reason for treating them alike. He agreed with Richardson, that whenever a stone was found, it should at once be removed, for the reason that no one could predict the possible evil which a stone might do.

Dr. J. D. Bryant, of New York, in opening the discussion of this subject called attention to the fact that absolute drainage in these cases was necessitated by the physiological fact that the bile flowed under a very low pressure, and that in the liver itself considerable obstruction must be produced by the simple swelling of the endothelial linings of the ducts.

Dr. W. J. MAYO said that while he agreed in the main with Dr. Richardson's observations, he could not believe that in well selected cases cholecystectomy was not indicated. The operation was the one of choice in those cases where the gallbladder had been obliterated by a stone or by a stricture shutting off its access to the gut. He could see no reason for leaving behind this useless remnant of a formerly valuable organ. He admitted, however, that in the case of normally functionating gall bladders, it was essential to drain as the previous speakers had stated.

Dr. BLOODGOOD said that the Johns Hopkins conclusions coincided very closely with Dr. Mayo's. The consensus of opinion at that institution was that the operation of cholecystectomy should be practised only in a very certain and small class of cases.

Appendicitis in Children.—Dr. A. J. McCOSH, of New York, said that the course of appendicitis in children was somewhat different from that typically pursued in adults. He said that it was of very frequent occurrence in children, and stated that a great many cases of so called "belly-ache" were undoubtedly examples of appendicitis. The differential diagnosis in a child was extremely difficult. Pain was in the very nature of the case a most variable and uncertain factor. The condition must be differentiated from gastroenteritis, from basal pneumonia, and from diaphragmatic pleurisy. The child's resisting powers, he said, were low, and therefore it was not so safe in these patients to wait for an interval operation as in the case of young adults. He cited statistics as to the age of patients having appendicitis, as based on his last 1,000 operations.

The Diagnosis of Appendicitis; Should the Appendix be Removed When the Abdomen is Opened for Other Causes?—Dr. F. W. McRAE, of Atlanta, said that the diagnosis of this condition was not by any means as easy as it was occasionally and unwisely said to be. He summarized the diagnostic points, and said that out of his last 270 cases 25 per cent. had been marred by obscure conditions, positive diagnosis of which had been reached only after entering the abdomen. He said that in the course of operating for almost any form of disease in the abdomen or pelvis, the appendix should be removed, unless there were present some very special contraindications.

Factors in the Mortality of Appendicitis.—Dr. JOHN B. DEAVER, of Philadelphia, said that altogether too much attention had in the past been given to laboratory methods of diagnosis. It was criminal, in his opinion, to wait for leucocyte rise or to delay for the development of any symptom, clinical or laboratory, save and except what could be elicted in a clinical way by the palpating hand of the surgeon. Given a right sided pain below the umbilicus and the slightest degree of tenderness and rigidity of the right rectus, there could be no possible question as to the propriety of operating. Better, he said, to take out a few healthy appendices, than to allow one patient out of a hundred to die from neglect. He lamented that the old time delicacy of observation and diagnosis was being made to give way to empirical and less scientific, if more artful, methods of diagnosis by the machines of a laboratory.

Dr. ERNEST LA PLACE reiterated the statement that in every one of the patients who died from appendicitis, there had been a moment at which operation should have been done. Gauze in all these cases, he believed, ought not to be removed until the eighth day.

Dr. A. J. OCHSNER said that children should be operated on early, and if they were not, should be put in Fowler's position. He stated that as a result of using the starvation method in properly chosen cases, he had in his last series of one thousand reduced his mortality to $2\,{}^{2}/_{10}$ per cent.

Dr. J. B. MURPHY said that he regarded subsidence of symptoms as extremely dangerous. He cited sixteen cases of perforative peritonitis which he had treated by the dry method. He had had one death.

Dr. ROBERT T. MORRIS, in reply to a criticism of Deaver's, that New York men made use of cigarette drains which could properly only be considered as instruments for kindergarten surgery, warned his friend from Philadelphia that he should not commit taxidermy upon his patients.

Letters to the Editor.

THE NATIONAL ASSOCIATION FOR THE STUDY AND PREVENTION OF TUBERCULOSIS.

16 WEST NINETY-FIFTH STREET,
NEW YORK, *June* 21, 1904.

To the Editor,

Sir: I am in receipt of a number of inquiries from all over the United States and from abroad concerning the outcome of the various meetings which have taken place in Baltimore, Philadelphia, New York, and Atlantic City in regard to the formation of a national tuberculosis association. Although your esteemed paper brought out a short paragraph concerning the Atlantic City meeting, it must have escaped the notice of many of my correspondents, and I ask you, in the interest of the cause, kindly to publish the following in the next issue of the *Journal:*

An American national organization for the study and prevention of tuberculosis has been formed at last. The constitution and by-laws of this new society were adopted on Monday, June 6th, at Atlantic City. The objects of the association, as stated in its constitution, are as follows: *(a)* The study of tuberculosis in all its forms and relations; *(b)* the dissemination of knowledge about the causes, treatment, and prevention of tuberculosis; *(c)* the encouragement of the prevention and scientific treatment of tuberculosis.

The following are the officers of this association: Dr. Edward L. Trudeau, of Saranac Lake, N. Y., president; Dr. William Osler, of Baltimore, and Dr. Hermann M. Biggs, of New York, vice-presidents; Dr. George M. Sternberg, of

Washington, D. C., late surgeon-general, treasurer; Dr. Henry Barton Jacobs, of Baltimore, secretary. The board of directors, in addition to the officers above named, consists of Dr. Norman Bridge, of California; Dr. S. E. Solly, of Colorado; Dr. John P. C. Foster, of Connecticut; Dr. Arnold C. Klebs and Dr. Robert H. Babcock, of Illinois; Dr. J. N. Hurty, of Indiana; Dr. W. H. Welch and Dr. John S. Fulton, of Maryland; Dr. Henry M. Bracken, of Minnesota; Dr. William Porter, of Missouri; Dr. Edward O. Otis and Dr. Vincent Y. Bowditch, of Massachusetts; Dr. Frederick L. Hoffman, of New Jersey; Dr. S. A. Knopf and Mr. Edward T. Devine, of New York; Dr. Charles L. Minor, of North Carolina; Dr. Charles O. Probst, of Ohio; Dr. Lawrence F. Flick, Dr. Mazyck P. Ravenel, Dr. H. S. Anders, and Dr. Leonard Pearson, of Pennsylvania; Dr. M. M. Smith, of Texas; Dr. George E. Bushnell, of the United States army; and Surgeon General Walter Wyman, of the United States Public Health and Marine Hospital Service.

Its membership is to consist of three classes: *(a)* members—those who are elected by the board of directors and who pay annual membership dues of $5; *(b)* life members—those who pay $200 and are already members of the association; *(c)* honorary members—persons distinguished for original researches relating to tuberculosis, eminent as sanitarians or as philanthropists who have given material aid in the study and prevention of tuberculosis.

The government of the association, the planning of work, the arrangement for meetings and congresses, and everything that appertains to legislation and direction are to be in the hands of the board of directors, and committees are to have the power to execute only what is directed by the board.

The board of directors is empowered, however, to appoint an executive committee of seven members, to which is entrusted the executive work of the association. This committee, chosen at the meeting in Atlantic City, consists of Dr. Edward L. Trudeau, Dr. Henry Barton Jacobs, Dr. Edward O. Otis, Dr. Mazyck P. Ravenel, Dr. Arnold C. Klebs, Dr. John N. Hurty, and Mr. Edward T. Devine.

The board of directors is empowered to appoint representatives in the International Committee on Tuberculosis. It was decided at the meeting of organization that this representation was to be headed by Dr. William Osler, and his associates will be selected later. The board is authorized, also, to appoint such committees as may be necessary for scientific and educational work and for the holding of meetings and congresses.

Dr. Osler, Dr. Trudeau, Dr. Biggs, Mr. Devine, Dr. Barrier, Dr. Huber, Dr. Knopf, and others addressed the meeting on the scope of the work which was before the association. The addresses of the various speakers were received with enthusiastic applause, but the ovation given when Dr. Trudeau appeared on the platform surpassed anything the writer has ever been privileged to witness before. It was spontaneous and genuine and lasted for minutes. It was a grand tribute from the vast assembly, not only to the pioneer of the sanatorium treatment in America, but to the grand qualities of Dr. Trudeau as a physician, scientist, and humanitarian. Dr. J. M. Barrier, of Delhi, La., speaking of the fearful mortality from tuberculosis among the negroes, urged the new society to take up also the work of prevention of tuberculosis among the colored population of the United States.

Concerning the character of the new organization, I may be permitted to quote in conclusion the opinion of a layman, the editor of *Charities*, the organ of the New York Charity Organization Society: "There are two conspicuous and equally gratifying features of this national movement. It is thoroughly representative of the leaders of the medical profession; and at the same time there are ample evidences of their determination to make the association of direct practical value in legislation, in the education of the public, and in bringing about a coordination of philanthropic, medical, and educational agencies for the conquest of the great scourge.

"While the scope of the association has not been officially outlined, it is evident from the stirring addresses made on the evening of the first meeting that it will work directly for the better education of the public as to the means by which tuberculosis is communicated; for the erection of hospitals and sanatoria; for the adoption by local boards of health of such measures as have been so effective in reducing the death rate from the disease in New York city; for the formation of local committees and associations in various communities; and for the intelligent cooperation of State and municipal authorities, private voluntary agencies, and the medical profession.

"The question as to whether a special journal shall be established, was left over for later consideration; but either through a special periodical or through the use of the medical or the lay press, the association will aim to bring about a practical and beneficial interchange of experiences and a more intimate knowledge on the part of those who are at work in any community of the measures which have been found effective elsewhere. The executive committee was empowered to select an executive secretary, who will probably be a layman, and as soon as the condition of the association's treasury warrants it, a determined and aggressive campaign will be opened.

"It will be a source of pride and gratification, not only to physicians, but to all who have taken a sympathetic interest in the warfare against consumption, that there now is a national body to which local associations and committees, hospitals and sanatoria, legislatures and local municipal administrations may turn with confidence for the last word on any disputed subjects, and for encouragement and sympathy for all good work on lines which experience has approved as promising of good results."

The majority of the vast audience present at the Atlantic City meeting was enrolled as members of the new organization.

S. A. KNOPF.

NURSES' TRAINING SCHOOLS.

42 Park Avenue,
New York, *June* 23, 1904.

To the Editor,

Sir: It is somewhat surprising to find in the *Journal* an article so misleading as the one called The Training School Fake and Its Victims, signed by Dr. G. Frank Lydston, in the issue of June 18th.

The author, it is to be inferred, is a Chicagoan, or at least writes of Chicago training schools. Of them every word that he writes may be true. Of those connected with the great New York hospitals the statements made are erroneous, and it is to correct these that this is written. Twelve years' close connection with the management of the Bellevue Training School for Nurses, and some less detailed knowledge of the New York. Presbyterian, City, and other training schools, make it possible for the writer to speak with authority.

The growing requirements which physicians make upon nurses have of necessity increased the time spent in the principal training schools to a three years' course. During this time the pupil nurses do practical nursing in both the medical and surgical divisons of Bellevue Hospital (the training school of which the writer is most competent to speak), do emergency service and tuberculosis nursing, and have the opportunity to go into the Psychopathic Pavilion and learn to care for the mentally unbalanced should they desire to have that experience.

Side by side with this practical work goes the theoretical, and lectures are given by competent men, and quizzes held by the superintendents of the school.

Our nurses are not trained or taught by the young men whom Dr. Lydston elegantly characterizes as "a hospital interne who himself is not yet 'dry behind the ears'"—whatever that may mean. In none of our well established schools is it the custom to send out pupil nurses to do private nursing. In the very early days, when the training school for nurses was an experiment, its worth yet to be proved, this was sometimes done as a source of income, but the standard of nursing was so rapidly raised, the ethics of nursing became so speedily defined, that the practice was soon abandoned, and is not countenanced in any school the diploma from which is worth having. If Dr. Lydston had informed himself further, he would not only have learned all that has been stated, but he would also know that the bill passed by the legislature of this State a year ago was framed and carried through by those interested in maintaining a high standard of nursing, and that in providing for a regents' examination and a class of registered nurses, it aimed to do away with the imposition on the public of a set of ill-informed, untrained, and incompetent women turned out by sanatoriums and correspondence classes and calling themselves "trained nurses." In none of our hospitals are menial services (scrubbing of floors, etc.), such as Dr. Lydston describes, demanded of the nurses. Their time is fully taken up with their legitimate duties and studies. These latter are provided by the authorities of the training schools at some cost. Nurses falling ill while in the school are cared for without expense to them. They are well lodged and well fed, and have no expenses, excepting for their underclothes and those outer garments which they wear when off duty. The small sum paid them monthly is intended for, and a little more than covers, the necessary uniforms, textbooks, etc.

It does not seem as if there were cause for complaint when a woman is given a special education, which fits her either for private nursing or for institutional work, and the only payment asked is her services. A finer set of women than these nurses it would be difficult to find; they are an honor to their guild and their country and a blessing beyond words to the suffering invalid and the exhausted and generally ignorant family.

There is, in the larger training schools of New York, those of a well earned and high reputation, no such thing as the "fakes" and "graft" of which Dr. Lydston complains, and in justice to these schools it is asked that this communication be given equal prominence with his in an early issue of your *Journal*. Lucy P. Scott.

Official News.

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending June 25, 1904:

Appel, Aaron H., Major and Surgeon. Granted leave of absence for ten days on account of sickness.

Barney, Charles N., First Lieutenant and Assistant Surgeon. Assigned to temporary duty in the Chief Surgeon's Office, Department of the East, and ordered to proceed from Fort Schuyler to Governor's Island, N. Y., daily and return, for that service, until July 1, 1904.

Brooks, William H., First Lieutenant and Assistant Surgeon. Relieved from duty at the United States Army General Hospital, Washington Barracks, D. C., and ordered to Fort Washington, Md.

Crampton, Louis W., Lieutenant-Colonel and Deputy Surgeon-General. Granted leave of absence for twenty days on account of sickness.

Davidson, Wilson T., First Lieutenant and Assistant Surgeon. Relieved from further duty in the Division of the Philippines and assigned to duty in the United States Army General Hospital, Presidio of San Francisco, Cal.

Geddings, E. F., First Lieutenant and Assistant Surgeon. Leave of absence extended thirty days.

Glennan, James D., Major and Surgeon. Detailed for duty as Chief Surgeon, First Provisional Division, Army manœuvres at Manassas, Va.

Owen, William O., Major and Surgeon. Granted leave of absence for thirty days on account of sickness, with permission to apply for thirty days' extension.

Raymond, Thomas U., Major and Surgeon. In addition to present duties, will take charge of Medical Supply Depot, St. Louis, Mo., during the absence of Lieutenant-Colonel Crampton, who is on sick leave.

Reynolds, Charles R., First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Washington, Md., and ordered to the United States Army General Hospital, Washington Barracks, D. C., for duty.

REYNOLDS, F. P., Captain and Assistant Surgeon. Granted leave of absence for two months, to take effect when relieved from duty at the United States Army General Hospital, Washington Barracks, D. C.

RUTHERFORD, H. H., First Lieutenant and Assistant Surgeon. Relieved from temporary duty at the Army and Navy General Hospital, Hot Springs, Ark., and ordered to return to his proper station, Fort Mackenzie, Wyo.

SHAW, HENRY A., Major and Surgeon. Detailed for duty as Chief Surgeon, Second Provisional Division, Army manœuvres at Manassas, Va.

SHIMER, IRA A., Captain and Assistant Surgeon. Granted leave of absence for thirty days, to take effect about July 1, 1904.

SHORTLIDGE, E. D., First Lieutenant and Assistant Surgeon. Relieved from duty at the United States General Hospital, Presidio of San Francisco, Cal., and ordered to Fort Wiley, Cal., for duty.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the period from June 17 to June 25, 1904:

Smallpox—United States.

Place.	Date.	Cases.	Deaths.
Colorado—Denver	Apr. 16-May 28	14	
Delaware—Wilmington	June 11-18	1	
Florida—Jacksonville	June 11-18	1	
Georgia—Macon	June 11-18	2	
Illinois—Chicago	June 11-18	5	
Louisiana—New Orleans	June 11-18	2	
Maryland—Baltimore	June 11-18	1	1
Michigan—Detroit	June 11-18	1	
Missouri—St. Louis	June 4-18	15	1
Nebraska—Omaha	June 11-18	2	
Nebraska—South Omaha	June 11-18	1	
New Hampshire—Manchester	June 11-18	7	
New York—Buffalo	June 11-18	1	
Ohio—Cincinnati	June 3-17	10	
Ohio—Dayton	June 11-18	4	
Ohio—Hamilton	June 7-14	2	
Pennsylvania—Altoona	June 11-18	2	
Pennsylvania—Philadelphia	June 11-18	5	1
South Carolina—Charleston	June 11-18	1	
Tennessee—Memphis	June 11-18	5	
Tenessee—Nashville	June 11-18	5	
Wisconsin—Milwaukee	June 11-18	8	

Smallpox—Insular.

Place.	Date.	Cases.	Deaths.
Philippine Islands—Manila	Apr. 30-May 7	2	3

Smallpox—Foreign.

Place.	Date.	Cases.	Deaths.
Austria—Prague	May 21-28	13	
Belgium—Antwerp	May 28-June 4	2	
Brazil—Pernambuco	May 1-15		33
Brazil—Rio de Janeiro	May 8-22	228	106
Canada—Vancouver	May 1-31	8	1
France—Lyons	May 14-28		4
France—Paris	May 28-June 4	18	
Gibraltar	May 22-29	1	
Great Britain—Birmingham	May 28-June 4	2	
Great Britain—Bradford	May 28-June 4	5	
Great Britain—Bristol	May 28-June 11	3	
Great Britain—Cardiff	May 28-June 4	2	
Great Britain—Dundee	May 28-June 4	2	
Great Britain—Edinburgh	May 28-June 4	5	
Great Britain—Glasgow	June 3-10	12	2
Great Britain—Hull	May 28-June 4	4	
Great Britain—Liverpool	May 28-June 4	2	
Great Britain—London	May 28-June 4	10	
Great Britain—Manchester	May 28-June 4	5	
Gt. Britain—Newcastle-on-Tyne	May 28-June 4	5	
Great Britain—Nottingham	May 28-June 4	3	
India—Bombay	May 17-24		12
India—Calcutta	May 14-21		1
India—Karachi	May 15-22	3	2
Italy—Milan	Apr. 1-30	1	
Italy—Palermo	May 14-June 4	10	2
Japan—Nagasaki	May 11-20	18	6
Mexico—City of Mexico	May 28-June 5	6	4
Mexico—Vera Cruz	May 28-June 4	1 imported	
Netherlands—Amsterdam	June 4-11	1	
Panama—Panama	June 5-12	1	
Russia—Moscow	May 21-28	8	9
Russia—Odessa	May 28-June 4	3	1
Russia—Warsaw	Apr. 30-May 14		40
Turkey—Constantinople	May 27-June 5		3

Yellow Fever.

Place.	Date.	Cases.	Deaths.
Brazil—Rio de Janeiro	May 8-22	19	5
Mexico—Merida	June 5-11	1	
Mexico—Tehuantepec	June 5-11	5	2
Mexico—Vera Cruz	May 28-June 4	3	

Plague—Insular.

Place.	Date.	Cases.	Deaths.
Hawaii—Honolulu	June 10	1	
Philippine Islands—Manila	Apr. 30-May 7	6	5

Plague—Insular.

Place.	Date.	Cases.	Deaths.
Egypt	May 14-21	36	26
India—Bombay	May 18-24		160
India—Calcutta	May 14-21		134
India—Karachi	May 15-22	87	79

Cholera.

Place.	Date.	Cases.	Deaths.
India—Calcutta	May 14-21		111
India—Madras	May 14-20		1

Births, Marriages, and Deaths.

Married.

DE BUYS—DUGGAN.—In New Orleans, Louisiana, on Tuesday, June 14th, Dr. Laurence Richard De Buys and Miss Miriam Duggan.

FRIEDMANN—DUFFIE.—In Colorado Springs, Colorado, on Friday, June 17th, Dr. Arthur C. H. Friedmann and Miss Ellen M. Duffie.

ODENATT—COWAN.—In Philadelphia, Pennsylvania, on Thursday, June 16th, Dr. William Burrill Odenatt and Miss Katherine Cowan.

OWENS—OWEN.—In Brooklyn, N. Y., on Thursday, June 16th, Mr. George A. Owens and Dr. May Owen.

RUSSELL—ROSS.—In Golden, Colorado, on Wednesday, June 15th, Dr. J. A. Russell and Miss Gertrude Ross.

Died.

AKIN.—In Louisville, Kentucky, on Sunday, June 19th, Dr. Joseph William Akin, in the seventy-fifth year of his age.

ARCHAMBAULT.—In Montreal, Canada, on Tuesday, June 14th, Dr. Gaspard Archambault.

BAYNE.—In Philadelphia, Pennsylvania, on Sunday, June 19th, Dr. George Bayne, in the eighty-second year of his age.

BETHEA.—In Fernwood, Mississippi, on Saturday, June 18th, Dr. J. W. Bethea.

BIRD.—In Fox Chase, Pennsylvania, on Thursday, June 23rd, Dr. John F. Bird, in the eighty-ninth year of his age.

COTTON.—In Cowansville, Quebec, Canada, on Friday, June 17th, Dr. C. L. Cotton, in the forty-eighth year of his age.

GANDY.—In Arvada, Colorado, on Tuesday, June 7th, Dr. H. P. Gandy, in the fifty-third year of his age.

HEREFORD.—In San Francisco, California, on Monday, June 13th, Dr. William S. Hereford, in the fifty-third year of his age.

LOWDEN.—In Indianapolis, Indiana, on Tuesday, June 21st, Dr. Lucien Lowden.

LUCIUS.—In Eutaw, Alabama, on Monday, June 13th, Dr. Richard D. Lucius, in the fifty-eighth year of his age.

MOSELEY.—In Richmond, Virginia, on Wednesday, June 15th, Dr. Daniel W. Moseley, in the seventy-seventh year of his age.

OVERHOLT.—In Salida, Colorado, on Tuesday, June 7th, Dr. Abraham J. Overholt.

PARKER.—In Marine City, Michigan, on Sunday, June 19th, Dr. Leonard Brooks Parker, in the eighty-sixth year of his age.

POLK.—In Baltimore, Maryland, on Tuesday, June 21st, Dr. John Purviance Polk, in the eightieth year of his age.

POWER.—In McKeesport, Pennsylvania, on Wednesday, June 15th, Dr. Henry J. Power, in the fiftieth year of his age.

SIMPSON.—In Philadelphia, Pennsylvania, on Tuesday, June 20th, Dr. James Simpson, in the sixty-sixth year of his age.

STRICKER.—In Johnstown, Pennsylvania, on Thursday, June 23rd, Dr. Julius J. Stricker, in the fifty-first year of his age.

TREACY.—In Philadelphia, Pennsylvania, on Monday, June 20th, Dr. Dennis J. Treacy, in the sixty-first year of his age.

New York Medical Journal
AND
Philadelphia Medical Journal.
CONSOLIDATED.

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Original Communications.

A CONTRIBUTION TO THE PATHOLOGY OF THE ELASTIC TISSUE OF THE AORTA.*

By FRITZ SCHWYZER, M. D.,

NEW YORK.

In a former paper I dealt with the construction of the valvular part of the normal aorta and the significance of the elastic tissue in this connection, and came to this conclusion: First, the elasticity and ductility of the aorta do not depend upon the elastic qualities of the elastic fibres alone, but rather on the peculiar construction of the elastic trestle work, and on the collagenous fibres. Second, the elastic tissue is to be considered as an inhibitory factor against over expansion. Now, I wish to deal with some of the pathological conditions of this tissue in the aortic wall.

The embryological development of the aorta has been worked out in a very painstaking study by Thoma.[1] He shows how the fœtal aorta develops, gains strength, and how, after birth, the changes in the blood current bring about changes in the construction of the intima and media. It is chiefly to Thoma that we owe our knowledge of atrophy and hypertrophy of the blood vessels, especially as far as these conditions pertain to the elastic fibres and membranes. After amputation of the lower leg, he found in the arteries of the thigh, a fibrous endarteriitis, a development of layers of cellular connective tissue in the intima, and a concentric atrophy of the media (its tube becoming smaller in diameter and the wall thinner). This investigation, and the similar studies of many other authors, all aim at getting nearer an explanation of that which is probably the most frequent of all diseases, and the one which contributes individually more to the death statistics than any other—sclerosis of the arteries. In spite of the innumerable papers written about this disease, it is still far from being fully explained, and any earnest attempt to get nearer its ætiology and its pathogenesis must be a welcome contribution to medical science.

Up to a very short time ago aneurysms, arteriosclerosis of the aorta, and lues of the aorta were dealt with jointly, and even now, there is, in the works of many current writers, a total absence of distinction between the different pathological processes which occur in the aorta.

Let us first consider, in a general way, the pathological processes which lead to the hardening of the aortic wall. There is an arteriosclerosis which has received the epitheton "praecox," because it occurs in children and in relatively young people. There are forms of arteriosclerosis that occur in middle aged persons, frequently after intoxications with lead or uric acid (gout), or tobacco and alcohol, or after malaria and infectious diseases, or after severe hardships. There is still another form of arteriosclerosis which occurs in old age, to which we should all succumb, if we did not die of some other disease before. It occurs in many animals, as well as in man, as the final result of the wear and tear of the system. These three forms, although anatomically quite similar, should be carefully distinguished one from the other. One should never speak of arteriosclerosis in a general way, but of the different arteriosclerotic processes. It is not my intention to write a pathological essay on the manifold forms of sclerosis of the arteries; but I wish to emphasize here, that there are, at least, these three processes to be mentioned, in the aorta, that they are anatomically easy of distinction, though until now they have not been well differentiated in literature. These three processes are: the aortic sclerosis of old age, the sclerosis of the middle aged, and the luetic sclerosis of the aorta. The result of the three processes is almost the same. If we have the calcified aortic wall, it is impossible to say which of them has done the damage, except that we know that lues rarely leads to calcification of the aorta. But, if we have an opportunity to examine the body of a man in whom one of the three processes has not run its entire course, we can make an anatomical diagnosis.

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* This article is the second of a series of three papers on the elastic tissue of the normal and diseased aorta. It is technical, but these technical remarks are essential to the understanding of the position taken by the author in the third paper, on the pathology of aneurysms. The author is, we believe, the first to advance the view that the elastic tissue of the aorta is *not* the main carrier of ductility, but is the factor which prevents *over*-distention. This view throws an entirely new light on the pathogenesis of aneurysms, and has considerable practical importance. The first paper was published in our issue for May 28, 1904.

[1] *Virchow's Archiv*, 93, pages 443-506; 95, pages 294-337; 104, pages 209-242 and 401-434; 105, pages 1-28 and 197-215; 106, pages 421-451; and on aneurysma, *Virchow's Archiv*, 111, 112, 113, 116, 122.

Let us now consider the anatomical changes that take place in the blood vessels of old people. Valerie Schiele-Wiegandt,[2] in an article on the thickness of the wall and the circumference of the arteries of the human body, demonstrates that the aorta and the arteria pulmonalis increase their circumference with age. The aorta shows the greater increase, so that in old people it is wider than the pulmonalis, while in younger people (up to fifty years of age) the pulmonalis is larger. We also know that the annulus arteriosus, which in young people is smaller than the annulus cardiacus, becomes with age the wider of the two, as the blood vessels gradually become wider. We know, further, that the elasticity and ductility of all blood vessels diminish with age, just as India rubber loses these qualities. The arterial wall in old people becomes more rigid. These changes, though very slow, lead in places to a thickening of the intima, and even to true atheroma. But they are to be looked upon more as senile degeneration than as a pathological process. Microscopical sections of senile aortæ show, when stained with the usual hæmatoxylin dyes, a tissue which is very poor in nuclei, and when stained for elastic fibres, they give a very characteristic picture. The elastic mesh work is much coarser than in young people. A great many of the small fibres and meshes seem to have disappeared, or they take the specific dyes only in parts, and in many places nothing seems to remain of the elastic trestle work, but the main trestles. Von Zwingmann[3] describes interruptions of the elastic tissue; in parts the fibres remain unstained, in others they stain blue instead of red. I have seen this polychromatic condition of the elastic fibres in several cases of arteriosclerosis and senile aortæ. But the pseudosegmentation of the fibres, which von Zwingmann describes as the result of over extension before hardening, I have never seen, except in luetic aortæ, as I will mention later on.

To compare the different aortæ, I imbedded pieces of the aortæ of young people, of middle aged arteriosclerotic people, and of aged persons, in the same celloidin block, cutting them together, so as to secure the same thickness for the three sections. When stained for elastic fibres, the young aorta shows a very uniform and very fine feltlike network of fibres; the middle aged aorta shows a pathological condition in the intima, chiefly in the adjoining parts of the media, while in many places, especially in the outer parts of the media, the elastic trestle work was still intact. The senile aorta, on the other hand, exhibited what I would call a rarefaction of the trestle work, and I do not hesitate to compare this to the rarefaction which occurs in the spongiosa of senile bones. According to my theory of the function of the elastic tissue as inhibitory factor, the result of the senile changes of the aorta can easily be understood. When the collagenous tissue becomes sclerotic, it loses part of its ductility, and this leads to the stiffening of the aortic wall. The latter will be more pronounced because of the stretching of the elastic trestle work. As I explained in my former paper, the easiest yielding of the aorta is the first, the stretching of the elastic mesh into the spindle shaped form. When the ductility which lies in the elastic construction has been exhausted, the much smaller ductility of the elastic fibres comes into play. Therefore, we have in the senile aorta a wider lumen but a much smaller ductility than in the young aorta, and as the number of elastic fibres is greatly reduced, the senile aorta comes nearer and nearer the end of its elasticity. It can only be attributed to the lowered blood pressure, which comes with the rest of the senile changes of the body (leading to general weakness, and to a quiet life), that old people do not oftener die of rupture of the aorta or other blood vessels.

We must now dwell for a moment on a phenomenon on the border line of the pathology of the aortic wall, I mean the ruptures of the elastica. Rokitansky,[4] in 1852, observed that occasional ruptures might have some relation to the formation of aneurysms. Von Recklinghausen[5] saw in them the primary cause of aneurysms, and believed that slight tears were caused by exaggerated blood pressure.[6] Hehmstaetter[7] built upon this idea his theory of the formation of aneurysms, but it was opposed by Koester, Krafft, and others. He attached too much importance to the indestructible durability of the elastic fibres, for, even if they do not dissolve in acetic acid, they are not invulnerable to inflammatory processes. We know that connective tissue cells, as well as emigrating leucocytes, easily destroy elastic fibres. According to Hilbert,[8] ruptures of the elastica interna can be found in the aorta, carotis, etc., in apparently healthy people of all ages. He believes them to be caused by the considerable variations in the blood pressure which are frequent, especially during the third and fourth decades of human life. Thoma[9] regards these ruptures as physiological, he found several in the aortæ of new-born infants, and many in non-sclerotic arteries at all ages. It seems to me unlikely that these ruptures should be irreparable, as we know that elastic fibres are easily formed, and tears will, in all probability, be bridged over, just as new elastic fibres form under the influence of increased blood pressure or are formed in the stump of amputated arteries.

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[2] *Virchow's Archiv*, 82, page 27.

[3] Cited from Merkel and Bonnet, *Ergebnisse der Anatomie*, Vol. II. 1892.

[4] *Ueber einige der wichtigsten Erkrankungen der Arterien.*

[5] *Allgemeine Pathologie des Kreislaufs und der Ernährung*, 1883, page 84.

[6] See Manchot. *Virchow's Archiv*, 121, and Eppinger *Archiv für klin. Chir.*, 35, 1887.

[7] *Du mode de formation des anévrismes.* Strasbourg, 1873.

I have come now to the main part of my paper, the discussion of arteriosclerosis and lues of the aorta. However, as it is not my intention to give a complete review of arteriosclerosis, I shall content myself by giving the momentary standpoint of the question of arteriosclerosis and lues of the aorta, so as to be able to deal with the differential diagnosis of these two processes.

Lues and sclerosis of the arteries in general, and especially of the aorta, are at the first glance not widely different from each other. Even now, some well known pathologists deny the possibility of distinguishing them, and up to a few years ago the pathology of the two diseases was as full of contradictions as it was in 1863, when Virchow protested against the habit of attributing to syphilis every pathological condition found in a former luetic patient.

Ponfick, in 1899, asserted that he had found changes in the aortæ of chronic alcoholics, which could not be distinguished from the aortic lues. Baumgarten also, with his wide experience amongst paretics and lunatics, affirmed that he never could find a difference between syphilitic and simple arteriosclerosis of the aorta. Ziegler, on the other hand, finds certain differences, but warns one to be cautious.

The differentiation of lues and sclerosis in the other arteries has been established long ago. Heubner[10] and Baumgarten[11] showed in the cerebral arteries, the characteristic points, and were supported by Vogel,[12] Chiari (Hereditary Lues in Children), Movacek,[13] Ladet, Otwald,[14] Lezzel, and others. P. Wendeler[15] described, under Heller's supervision, the preparations of a luetic man, thirty-nine years old, who had been treated by Quinke. He found along the larger cerebral arteries extensive infiltrations of small round cells; in the infiltrations of the veins of the pia, often giant cells; in the adventitia round cell infiltrations. The normal tunica media was interspersed with dots of round cell infiltration, some of them necrotic. The intima showed cell proliferation, often on but one side. The newly formed thickening of the pia exhibited vascularization, parallel in direction to the axis of the blood vessel. He also saw new formation of the membrana fenestrata. He does not speak of the important influence of the luetic process on the elastica; but his drawings (Table V) are very significant. (He does not appear to have used specific stains for elastic fibres.)

Baumgarten described the luetic process as a primary periarteriitis and mesoarteriitis with endoarteriitis obliterans, leading to fatty degeneration and fibrous induration of the intima. Arteriosclerosis, on the other hand, he considers as a primary disease of the intima, which gradually attacks the media and adventitia, and leads to fatty degeneration and calcification chiefly of the intima.

L. Jores, in his monograph on general arteriosclerosis (1903), gives a good review of new literature on this subject. In the new German literature, such men as Koester, Marchand, Thoma, and von Schrötter, have advanced their theories, while the French school is very well represented by Huchard. He considers arteriosclerosis as a part of a general sclerosis, which attacks chiefly the liver and kidneys. The process begins with endoarteriitis in the smallest blood vessels, among others in the vasa vasorum of the blood vessels. As a consequence, we see angeiosclerosis on one side, and visceralsclerosis on the other. Marchand considers arteriosclerosis primarily as a nutritive disturbance of the arterial wall, swelling, thickening, and degeneration of the cellular elements of the intima leading to its necrosis, disintegration, or calcification. Thoma, in contradiction to Marchand, holds that the beginning of arteriosclerosis lies in the media, which, in the wear and tear of life, loses part of its elasticity. A compensatory thickening of the intima follows, and this can remain and can lead to a narrowing of the vascular lumen, or to degeneration of the intima. The changes of the intima are due, partly to the direct influence of some noxious factor in the blood, and partly to changes in the vasa vasorum. Jores finds two forms of initial arteriosclerosis, either a hyperplastic thickening of the intima, or a regenerative growth of connective tissue in it.

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[8] *Virchow's Archiv*, 142, page 218.

[9] *Dreizehnter Congress für innere Med.*, Wiesbaden, 1895.

[10] *Die luetischen Erkrankungen der Hirnarterien*, 1874.

[11] *Virchow's Archiv*, 76, page 86.

[12] *Deutsches Archiv für klin. Med.* Vol. XX, 1877, page 32.

[13] *Vierteljahrschrift für Dermatologie und Syphilis*, Vol. X, 1883, page 209.

[14] *Berliner klin. Wochenschrift*, 1888.

[15] *Deutsches Archiv für klin. Med.*, 55, page 161.

The aortic wall, naturally, offers conditions widely different from those of the cerebral or any other arteries, as the construction is so dissimilar. While the smaller arteries have a media composed of smooth muscular fibres, we find the aortic wall (and the wall of the pulmonic artery) to be made up of a network of elastic fibres and lamellæ, the spaces between the meshes being filled with a collagenous, ductile, and elastic connective tissue, through which the vasa vasorum and the lymphatic vessels are drawn.[16] Of all the recent authors who have dealt with syphilis of the aorta (Heller,[17] Reich,[18] Puppe,[19] and others), Doehle's paper[20] appeared to me to be the most lucid and convincing. On the differentiation of lues and sclerosis of the aorta, he says: "Ordinary arteriosclerotic aortitis begins with a round cell infiltration in several parts of the intima, with proliferation of the intima cells, with the formation of fibrillous and homogenous tissue, and new formation of elastic fibres. It leads to dimming, fatty degeneration, and calcification of the intima, and of the media, which soon follows the same course as the disease progresses. Later on, inflammatory changes take place in the adventitia. Lues of the aorta, on the other hand, begins with infiltration in the adventitia and also in the media, and leads to the formation of cicatrices, and even to the interruption of the media."

I agree with Doehle, and think the pictures given in his paper to be quite convincing. In ordinary preparations of luetic aortæ, without any special stain, one can see how the intima has sunk into the weakened places, and how the cicatrices are widened by the blood pressure. Thus the aorta acquires that singularly ruffled inner surface, in spite of the fact that the intima remains almost unchanged for a long time. This has been considered by later authors as suggestive of lues, and I can but emphasize it as a fact. The intima in some places comes in direct contact with the adventitia, to which it adheres by means of a sclerotic, cicatrizing tissue, which has very few nuclei. The changes which now follow in the intima are of a purely secondary nature. They consist of sclerotic and fatty thickening, but rarely of ulceration. The indentations are mostly longitudinal.[21] In all my autopsies of the last ten years, I have paid special attention to the aorta, and have almost invariably found the above picture as characteristic of lues. Either the body exhibited other stigmata of the disease, or the anamnesis supplied the necessary data.

For a long time I have tried to find a microscopical means of distinguishing aortic lues from sclerosis, and I am now convinced that I have succeeded in doing so. At first I stained my aortic sections with hæmatoxylin or similar colors; later I found staining the elastic fibres more useful. I submitted the elastic fibre net to a systematic examination, and found in purely luetic cases such characteristic marks of syphilis that I consider their recognition to be comparatively easy. Von Recklinghausen and Manchot have proved that elastic fibres are destroyed by chronic inflammatory processes. Weissmann and Neumann[22] found gradually developing atrophy of the elastic fibres during arteriosclerosis. Thoma, in 1898, described the change of the elastic tissue of the aorta during sclerosis.

In my experience with elastic tissue, the syphilitic and the sclerotic processes in the aorta run as follows: During arteriosclerosis the membrana elastica interna is usually affected first. It gets thinned out, split, or interrupted. Then the elastic mesh work in the adjoining parts of the media becomes affected, it appears rarefied, interrupted in places; many small fibres disappear. In very old people this process is diffuse through the whole wall of the aorta, while the sclerosis of younger people shows a preference for the interior side of the media.

Lues begins its work of destruction more from the side of the adventitia, and always along the vasa vasorum, in spots. Very often we find luetic aortitis in people between twenty and forty years of age, and such cases generally show normal elastica, except in the places affected by the luetic process. These spots, in general very small, are situated mostly in the outer layers of the media. The elastic fibres and lamellæ in these spots do not take the specific stain, so that they appear interrupted. Often we find only a few fibres interrupted, and some of them show staining qualities in small dots, so that they appear as dotted lines.

If the necrotic spots, or to call them by their right name, the miliary gummata, are a little larger, we see a bunch of fibres cut through, with their ends winding round like those of a torn rubber tape. Eppinger[23] saw this in aneurysms of small blood vessels before my observations. In the central parts of the gummatous noduli we very often find fragments of elastic fibres, which take the specific stain, and which, when stained by Manchot's method, resemble tubercle bacilli to a certain degree. In the walls of large aneurysms such enormous destruction and inflammatory changes are shown, that a microscopical differential diagnosis would be difficult. But in such cases we always find the evidence of the luetic process in those parts of the aorta not yet widened, and showing the corrugation of the intima. I have never seen a luetic aneurysma in which other parts of the aorta did not show more or less active luetic changes.

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[16] K. Koester, Ueber die Structur der Gefaesswaende, etc., *Sitzungsb. d. Niederrhein, Gesellschaft*, 1875.

[17] *Münchener med. Wochenschrift*, 1899, No. 50, and Aortenaneurysma und Syphilis, *Virchow's Archiv*, 171, 1903.

[18] *Dissertation*, Königsberg, 1896.

[19] *Deutsch. med. Wochenschrift*, 1894 45-46.

[20] Ueber Aortenerkrankungen bei Syphilis, *Deutsches Archiv für klin. Med.*, 55, page 190.

[21] As I have shown in a former paper, the circular elastic fibres are, theoretically, under double the strain of the longitudinal ones—therefore they tear more easily, leading to axial tears.

[22] *Wiener med. Zeitung*, 1890.

An exact histological study of very small and very fresh luetic infiltrations, which occur either along the vasa vasorum in the media, or seemingly independent of the capillaries, exhibits as follows: The beginning of the luetic infiltration is formed by a small agglomeration of round cells with round nuclei, which are rather rich in chromatin. The few nuclei of the collagenous tissue exhibit a certain activity, they seem to divide rapidly. The elastic fibres in closest proximity to the infiltration remain unchanged during the first period, at least they take the specific stain very well. The infiltration gradually increases in size, round cells surround some of the elastic fibres, or even bunches of them, and now dissolution of the fibres begins, which can in every phase be studied histologically.[24] Though the artificial dissolution of elastic fibres requires either a very strong potassium hydrate solution (Schwalbe) or artificial digestion (Burg, Ewald, Pfeufer, etc.), the leucocytes accomplish this task easily. Von Recklinghausen saw them transformed in pearlstring like formations in laryngeal typhoid ulcers. We see exactly the same conformations in luetic infiltrations. The specific staining is lost, first in small places, gradually in the whole fibre, and then the fibres disappear. A good description of the process of infiltration and melting is found in G. F. Crooke's[25] paper on syphilis of the heart. He describes the tears in the elastic tissue of the aorta. Manchot, also, has seen the same. Redkin[26] attributes the melting of the elastic fibres to the activity of the elements of the granulating tissue and of the leucocytes. He introduced small pieces of aortic tissue into the subcutaneous tissue of dogs, and found the elastic tissue entirely dissolved after twenty days.

Aortic lues, therefore, begins with infiltration along the vasa vasorum, often with endarteriitis of the same, and leads to a strictly circumscribed pathological process, starting with the formation of the most minute gummata. These soon and extensively interrupt the elastic tissue, and rapidly weaken the elastic layers, especially the elastica externa. Aortic arteriosclerosis soon attacks the elastica interna, it rarifies the elastic spongy tissue, widens its meshes, but does not lead to the interruptions and extreme destruction of lues. In badly sclerotic aortæ rarefied places are always shown. Where the sclerotic or luetic process is very far advanced, almost nothing remains of the media, in which case calcification indicates arteriosclerosis and not lues. Fritz Lesser (*Berliner klin. Wochenschrift,* January 25, 1904), in his article on Ætiology and Pathology of Tabes, speaks of aneurysms, too. He fully acknowledges the importance of syphilis, relying especially on Heller and his school. He affirms that luetic aortitis is mostly an *interstitial* process, and not a formation of gummata, just as locomotor ataxia is caused by an interstitial syphilitic inflammation of the spinal cord. He classifies the interstitial luetic process as syphilis quartaria. I must emphasize once more that I do not consider luetic aortitis as a chiefly diffused process. On the contrary, it leads to the formation of very small necrotic spots for which the name miliary gummata seems fully justified.

Authors often mention acute aortitis as an ætiological factor of aneurysms. They describe it as a frequent occurrence during acute infectious diseases, like scarlet fever, variola, and typhoid fever. I have seen one very interesting case of this kind in a patient who had acute endocarditis in the region of the sinus Valsalvæ, which led to the formation of a small aneurysm. This aneurysm burst into the left auricle of the heart, and brought a speedy death. The elastic tissue of the inflamed part was interrupted in many places, and large areas of it seemed totally destroyed, at least, they did not take any specific stain. The cause of this acute aortitis was microbic embolism in the vasa vasorum, which led to a state of partial necrosis, and weakened the aortic valve to such a degree that it gave way under the blood pressure.

In a following paper I will deal with the ætiology of aneurysms, and give a short casuistic of some of my cases. I shall defer speaking of traumatism of the aorta, and of the changes of the same by pressure from outside (tumors), to that paper.

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[23] *Archiv für klin. Chirurgie,* 1875, 35, and *Virchow's Archiv,* 111, 1888.

[24] See F. Hansen, *Virchow's Archiv,* 137, page 25, 1894, Bildung und Rueckbildung elastischer Fasern; also Gardner, *Journal of the Royal Microscopical Society,* 1898.

[25] *Virchow's Archiv,* 129, page 186.

[26] Redkin, Ueber die Veraenderungen des elastischen Gewebes bei Aneurysmenbildung und Sclerose. *Inaug. Diss.,* St. Petersburg, 1898.

As the result of this paper, I wish to state, that by studying the lesions of the elastic tissue, it is comparatively easy to distinguish between lues and arteriosclerosis, and that by the same means, the senile form of aortic changes can be distinguished from those of true arteriosclerosis. The elastic tissue shows, under pathological conditions, even more plainly than in the normal state that its function is to prevent over extension, that it is an inhibitory factor.

54 East Fifty-eighth Street.

THE HOME TREATMENT OF PULMONARY TUBERCULOSIS.*

By E. FLETCHER INGALS, M. D.,

CHICAGO.

Many physicians believe that the treatment of pulmonary tuberculosis is absolutely useless unless the patients can be sent to an especially favorable climate, but others have such great confidence in therapeutic measures that, for a time at least, they hope to cure many of the cases that fall to their care.

As a matter of fact, we know that in at least two thirds of the cases of pulmonary tuberculosis recovery ensues, for statistics show that only 12 per cent. die of this disease, and autopsies show that in 25 per cent. recovery from it has taken place. Of the very early cases, the proportion of recovery is greater than this, but when the disease becomes well marked it is probable that in less than 25 per cent. does recovery occur. While there is no specific treatment for this disease, I believe that the painstaking physician may greatly prolong the life of the patient in many of the well marked cases and may practically cure a considerable number. It should be understood that no patient can be considered cured in less than two or three years, and none can properly be termed cured unless all distinct signs of the disease have disappeared; however, in those cases in which the disease is arrested, even though signs remain, the patients are practically cured if the disease does not again become active. You and I can recall many cases that would come under one of these heads, but we cannot often be sure of the cause of betterment. I believe that the so called antiseptic treatment is often beneficial, the open air treatment about equally so, and forced feeding is more important than either, while tonics, digestive agents, and anodynes that do not interfere with the ordinary functions of the body are also of much importance. Nothing should be given that will interfere with digestion. To do the best for our patients, we should generally combine all of these, and when practicable the sufferer should be placed in a good climate; but often this is impracticable and for such cases we must do the best we can at home. I wish to cite only two cases in illustration of what appears to me the best course to pursue with these unfortunate sufferers.

The following case illustrates the effects of home treatment, with as liberal feeding as possible, aided by tonics and digestive agents, anodynes to prevent excessive cough, and antiseptics in large doses. In this instance open air living could not be secured.

Case I.—Mrs. B. A., aged thirty-one years, came to me in March, 1901. She had suffered from a dry cough and some shortness of breath for about six months. She stated that she had had pneumonia two years before, but had generally been healthy. She had some pain under the scapula and in other portions of the chest wall, especially in damp weather, but had never suffered from rheumatism. There was no hereditary history. The weight normally was 120 lbs., but at this time was only 111 lbs. She was anæmic, the hæmoglobin being only 35 per cent. When I first saw her the pulse was 98 and the temperature 100° F. There was considerable dry cough, but very little expectoration, and there never had been hæmoptysis. The appetite was very good but the digestion poor. She was habitually constipated. The urine was normal. The nasal cavities and the larynx and trachea were normal. Upon examination of the chest I found marked dulness at the right apex above the clavicle and moderate dulness extending as low as the third rib. The respiratory sounds were bronchovesicular in the same region, and posteriorly similar changes in the resonance and breath sounds extended from the apex one inch and a half below the spine of the scapula; over other portions of the chest the resonance and respiratory murmurs were normal. The heart and abdominal organs yielded no signs of disease. Numerous tubercle bacilli were found in the sputum. Two weeks later it was stated that the patient had taken cold about the time I first saw her and was coughing more than before. In addition to the signs already noted, there were feeble respiration and numerous râles over the upper part of the right lung. The pulse was 136 and the temperature 102.4° F. I ordered the extract of nux vomica, grain ½, to improve the digestion; extract of hyoscyamus, grain ¾, to relieve cough; extract of cascara sagrada, grain ⅓, for the constipation, and sodium sulphichthyolate, grains 7½, for its antiseptic properties, to be taken four times a day before eating and at bedtime, and to be followed by a glass of milk. A week later she reported herself somewhat better and the next week much better. The ichthyol was increased to 12½ grains, otherwise the same remedies were continued. A week later she reported that she was coughing more, but that there was less expectoration. The appetite was variable, but the strength better; pulse 96, temperature 99.2° F. At this time I was obliged to add ⅙ of a grain of codeine to the prescription and to increase the extract of hyoscyamus to 1 grain, in order to moderate the cough. Three weeks later her general condition was the same, but the pulse was found to be 120, temperature 99.8° F., strength not very good. At the next visit, ten days later, she reported that she had no cough, felt better, and slept well; pulse 96, temperature 99.6° F. Ichthyol was increased to 15 grains, extract of nux vomica and extract of cascara were each increased to 2-3 of a grain, the extract of hyoscyamus was continued at 1 grain, the codeine was discontinued. At the next visit, June 7, the temperature was only 95.6° F., pulse 90, appetite improved; she had gained eight pounds and was weighing then 119. Thus the history continues, the remedies being given in essentially the same way; the pulse and temperature varying more or less from time to time for the next seven weeks, when it is noted that she had been coughing badly for three weeks, did not feel very well, pulse 124 and temperature 99.8° F., but she weighed 120 pounds. There was no material change in the physical signs, but there were no râles over the chest. At this time 1/8 of a grain of Allen's extract of cannabis indica was added to the prescription for the relief of cough, and she was given a cough syrup containing 1/4 of a grain of codeine, 10 grains of sodium bromide, and 7½ grains of chloral, in cascara cordial. This was only to be used when the cough was extreme and not to be taken regularly. Three weeks later the cough was much better, but the temperature was still 99.4° F. Essentially the same medicines were continued. On October 4, nearly two months later, it is noted that she weighed 123¼ pounds. She slept well, the appetite was fair, and there was but little cough, and a month later it is noted that the pulse was 110, temperature 99.9° F., but she weighed 128 pounds. At her next visit, a month later she said that she had been poorly for some time after the last visit. At this time her pulse was 105, temperature 99.2° F., but she weighed 130 pounds. At her next visit, seven weeks later, it is stated that she had not coughed at all since the last visit. The signs of consolidation at the right apex still remained, though not so marked as formerly. The pulse was 96, temperature 99.4° F., but she weighed 134¾ pounds; tubercle bacilli stil remained in the sputum. I saw her subsequently at irregular intervals varying from four to eight or twelve weeks. She had very little cough, practically no expectoration, and felt pretty well. On December 17, about twenty-one months after I first saw her, it is noted that there was no expectoration. The pulse was 90, temperature 98° F.; she weighed 136 pounds; the respiratory sounds were normal on ordinary respiration, but on forced breathing a few bronchial râles and some harshness of respiration were found over the upper part of the right lung, and the respiratory sounds over the lowe lobe were feeble. In the latter part of February, 1903, it is noted that she had taken another cold and was not quite so well. There were still a few tubercle bacilli in the sputum. Essentially the same remedies were continued. Two months later it is noted that she was feeling much better. The pulse was 104, temperature 99.6° F., weight 136 pounds. At this time she was given thiocol, 10 grains at a dose four times a day, which was subsequently increased to 20 or 25 grains at a dose. October 6, 1903, the respiratory sounds at the apex of the right lung were only about two thirds as intense as on the left side. Her weight was 135½ pounds, temperature 98.8° F.

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* Presented to the Chicago Laryngological and Climatological Society, April 18, 1904.

It will be seen that this patient had gained from March 29, 1901, to October 6, 1903, over twenty-four pounds in weight. She had lost her cough and high temperature, she was to external appearances well and she felt well, although there were still evidences of the old trouble in her lungs. I believe that the improvement was mainly due to the effects of the medicine in stimulating her appetite, promoting digestion, and preventing excessive cough, but I think that the benefit was also dependent to a considerable extent upon the so called antiseptic treatment, for she certainly appeared much better when she was taking it than at times when it was temporarily discontinued. She had not been at all particular about keeping in the open air, but had eaten fairly well during the course of treatment and had taken palliative internal remedies practically all of the time.

The following case illustrates the benefits of the open air treatment. It was prescribed at first, but it was not followed out with any persistence until after she was put to bed with pleurisy last fall.

Case II.—Miss H. M., aged thirty-two years, came to me on July 23, 1903. She had never been very strong, and said that during the winter of 1901-2 she coughed for several months, but the cough ceased in the summer of 1902. In November of that year she had pneumonia and her cough had continued during the winter, but had been much worse since she had taken cold, in May, 1903. She stated that she had always taken colds easily and that she had a prolonged attack of malaria several years ago. There was no hereditary predisposition to disease. At the time she called to see me she was coughing a great deal, so that she was kept awake at night and was expectorating two or three ounces daily. She was very weak and her flesh was reduced to 96¼ pounds; her average weight had been 107 pounds. She had a very poor appetite and much thirst. She was anæmic, the hæmoglobin being only 45 per cent. The urine was normal. She had had night sweats for about six months. I found her pulse 132, with occasional intermissions, and a temperature of 103° F. at 11 o'clock in the morning. She was hoarse at times, indicating some slight involvement of the larynx, but there were no signs of disease, either in the nose or throat, excepting peculiar pallor. At both apices, more marked upon the right side, there was dulness with broncho-vesicular breathing and a few subcrepitant râles as low as the first rib in front. On the right side, posteriorly similar signs extended an inch and a half below the spine of the scapula. There were also a few indistinct râles at the left apex and the respiratory sounds were only about three fourths as intense as on the right side. The heart was of normal size, action rapid, and occasionally intermitting. There were no signs of disease over the abdomen. Numerous tubercle bacilli were found in the sputum.

She was given grain 1/3 of the extract of nux vomica, grain $^3/_5$ of the extract of hyoscyamus, grain 1 of berberine hydrochloride, and grains 3 of ingluvin, four times daily. When she called a week later her pulse was 132, temperature 100° F. She had been in bed most of the time since her last visit. The cough and expectoration had been very troublesome, especially at night. At this visit the hyoscyamus was slightly increased, the other remedies continued, and she was given 10 grains of thiocol three times a day after eating, followed by a glass of milk. Two weeks later she reported that she was better, but her pulse was 134 and temperature 101° F. at 11 o'clock in the morning. Besides her usual meals she was taking two quarts of milk and one egg daily. Three weeks later it is noted that she had been troubled with nausea and diarrhœa, so that all medicines had been discontinued, according to my instruction that she should take nothing that disturbed the digestion, no matter how much I would like her to have it. At this time the pulse was 120, the temperature only 99.6° F. She had practically recovered from the digestive disorder and was again taking two quarts of milk daily, but she weighed only 94½ pounds, having lost two pounds since the beginning of treatment. The thiocol was temporarily suspended, other remedies were continued about as before. Two weeks later she had gained nearly two pounds. Her digestion was good and she was taking two quarts of milk and one egg nog daily, in addition to her regular meals, which were not very large. At this time I ordered that 15 drops of guaiacol be rubbed upon the chest twice daily to relieve pain and fever. She was given brucine phosphate, grain $^1/_{12}$, extract of hyoscyamus, grain ¾, Allen's extract of cannabis indica, grain ⅙, extract of digitalis, grain ¼, with papaine and diastase of each 2 grains before each meal and at bedtime. At the end of the week she reported herself much better. Palliative remedies were continued and she was given thiocol, 15 grains three times daily, after eating and followed by a glass of milk. She continued to improve gradually, and two weeks later, on September 29th, it is noted that she wieghed 99½ pounds, but the pulse was still 132, temperature 99.5° F. She continued with essentially the same remedies, though sparteine sulphate, grain ¾, was substituted for the extract of digitalis, and a month later it is noted that she was taking 25 grains of thiocol three times daily and two quarts of milk daily, and that she weighed 106 pounds. Her pulse and temperature remained about the same. About this time she again had disturbance of the stomach, but she did not attribute it to the medicines. At the next visit her pulse was 120, temperature 100° F. The remedies were continued, but shortly afterward she had an attack of pleurisy, for which we put her to bed, where she remained about four weeks. During the winter she was seen at her home, occasionally, by Dr. E. L. Kenyon. Although she had been directed to keep in the open air all of the time, she had not carried out the instruction until she was seen at her home when the pleurisy developed. It was found that poverty made it very difficult for her to live in the open air, as it compelled the rest of the family to do the same; however, afterward she had her windows open continually night and day. There was no porch, so that she could not sit out of doors. She lived in a flat heated by steam, by which the temperature was moderated during the day, although it sometimes fell very low during the night when the steam was shut off. After she went to bed with the pleurisy she took merely the tonics and the palliative remedies for cough, but discontinued the thiocol. She continued the forced feeding most of the time, diminishing it a little occasionally, when the stomach was disturbed. During the last week she was in bed the temperature ranged from 98.2 to 99.6° F. She was then allowed to be up a short time each day. During the next two weeks the temperature usually remained normal, but on three occasions was found above 99, once reaching 99.4° F. In addition to the milk it was directed that she take six eggs daily, but the price of eggs was so high that she was not able to do it. On January 3, 1904, it is noted that the dulness at the right apex remained practically the same as at first, but there were no râles over any part of the chest. She was gaining some strength, but still had a pulse of 132. All internal remedies had been discontinued for about three weeks, but stomachic and cardiac tonics, with the extracts of hyoscyamus and cannabis indica as anodynes were again ordered, and three weeks later it is noted that she had improved in strength; there was less cough and the digestion was good. The highest temperature during this time had been 99.2° F. She formerly complained of her feet being cold, but now they kept warm. In the latter part of February she thought that she had taken cold, and she was coughing a little more. She was living in the open air all the time, taking two quarts of milk daily, and was in bed most of the time. She weighed 111¾ pounds. She said that, on account of keeping the windows open at night, she had frosted her nose two or three times during the winter. The physical examination of the chest showed that the signs of consolidation were somewhat diminished at both apices. I last saw her on February 4th, when she stated that she felt very well, but her pulse was 140 and temperature 99.2° F. Her weight was 111 pounds, a gain of over 15 per cent. since she first came under my care.

During the first three months of the treatment she had relied upon medicines and nourishment, but had not kept in the open air. However, she had gained about ten pounds in weight. During the last five months of treatment she had remained in bed most of the time, because it was too cold for her to be up. She had not received any thiocol, but she had taken tonics and palliatives most of the time, with abundance of food, and she had lived constantly with her windows open. During this time she had gained five pounds in weight and had coughed very little. The last time I saw her she was very much better than eight months previously, so far as the general appearance was concerned. The pulmonary signs were less, but the pulse was still rapid.

34 Washington Street.

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The State Hospital, Rochester, graduated the following nurses on June 16th: William J. McHugh, Alvin M. Beedle, Edward B. Hughes, Richard H. McGeheen, Karl P. Hall, Anna Nau, Alice A. Burns. Irene E. Peck, Nora E. Clifford, and Margaret M. Toner.

EFFECTS OF THE DRY CARBONIC ACID GAS BATH ON THE CIRCULATION AND ON THE DISEASED HEART.

By ACHILLES ROSE, M. D.,

NEW YORK.

In the year 1890, Dr. J. Jacob reported at the Congress for Internal Medicine, in Vienna, the results of his experiments to determine the specific effect of carbonic acid, externally applied, on blood pressure; and again in the *Zeitschrift für klinische Medicin,* Bd. XLIX,[1] he published the result of his investigation. His experiments were conducted in a most exact and scientific manner, but it is difficult to understand why he went to work with unnecessary complications. The simplest way would have been to give the person experimented on a dry carbonic acid gas bath. Instead of that, he gave, first, plain water baths at an indifferent temperature of 36° or 35° C., and afterwards carbonic acid water baths of the same temperature, in order, as he says, to study the effect of carbonic acid, when externally applied, on blood pressure.

He took great precautions to avoid errors, gave the water and the carbonated water baths alternately, changed the order at different times on different days. He found that the after effects of both forms of bathing consisted in enlargement of the volume of the heart pulse and acceleration of blood circulation of the aorta, but that these effects were produced in a higher degree —greater acceleration of blood circulation in general, stronger diastole, as well as stronger systole of the heart—after the carbonated bath than after the simple water bath.

In a paper published in the *New York Medical Journal*[2] I gave an historical sketch of the therapeutical application of carbonic acid. According to writers of the first decades of the nineteenth century carbonic acid baths have a great effect in the treatment of some affections of the locomotor apparatus and the nervous system; they are of great service in chronic rheumatism and gout, and in certain forms of peripheral paralysis, especially rheumatic and hysterical paralysis. Of the effects on the circulation, especially in heart disease, I can find no records. In those days percussion and auscultation were not at all or only little known, and consequently heart diseases were not understood so well as we understand them now.

In another paper[3] I abstracted the literature on the physiological action of carbonic acid gas on the system in health and disease, but I failed to find any literature at that time on its effect in disorders of circulation in heart disease. The Nauheim methods, on which a great deal has been written, refer more to the treatment of disorders of circulation by means of the application of cold—that is, of cold baths modified by being saturated with carbonic acid gas.

In two other papers[4] I related what I had learned of the method of giving dry carbonic acid gas baths in Franzensbad. From those latter two papers I may be allowed to recapitulate that part which gives the description:

> In the bath house over the Polterbrunnen there are common baths for a number of bathers at the same time, and also separate bath tubs. The common baths are two wide basin-shaped recesses with steps all around the walls, and benches to be occupied by the bathers. The single bath tubs are about one meter deep, also with benches of gradual height. In the bath tubs, as well as in the common bath basins, the bathers *remain with their clothes on,* the gas at once penetrating the clothing and acting on the skin.
>
> Carbonic acid being a colorless gas, the tubs and basins to the eye appear empty. By the experiment with a lighted candle—the flame becomes at once extinguished in the gas—we can learn the difference between gas and atmospheric air. Carbonic acid gas, about one half heavier than atmospheric air, sinks to the bottom, and as long as the bather keeps the head above the level of the gas there exists no possibility of any harm.
>
> The first sensation of the bather in the bath is that of warmth, beginning at the feet and extending gradually, by means of the penetrating power of the gas, over the whole surface of the body exposed to it; this changes by degrees into a piercing or prickly sensation. As the gas by itself is cool, this sensation of warmth is not due to the temperature of the gas, but is a consequence of the intense irritation which it produces, especially on the peripheral nerves, followed by increased circulation in the capillaries and manifested by reddening of the skin. The capillaries and arteries become dilated, the amount of blood in both, as well as the blood pressure in the arteries, is increased, the diastole of the heart becomes more effective. These are moments of significance for the heart and its work, in so far as that the intensity of the peripheral arterial circulation is augmented, the drawing of blood from the veins facilitated, the diastolic filling improved. and the heart muscle is given more time for relief and for preparation for renewed energy.

That the rapidity of the whole blood circulation in the superficial vessels increases during the bath is also shown by the increased strength and volume of the radial pulse. The pulse of the bather, within a few minutes after having entered the bath, resembles a pulse stimulated by alcoholic drinks.

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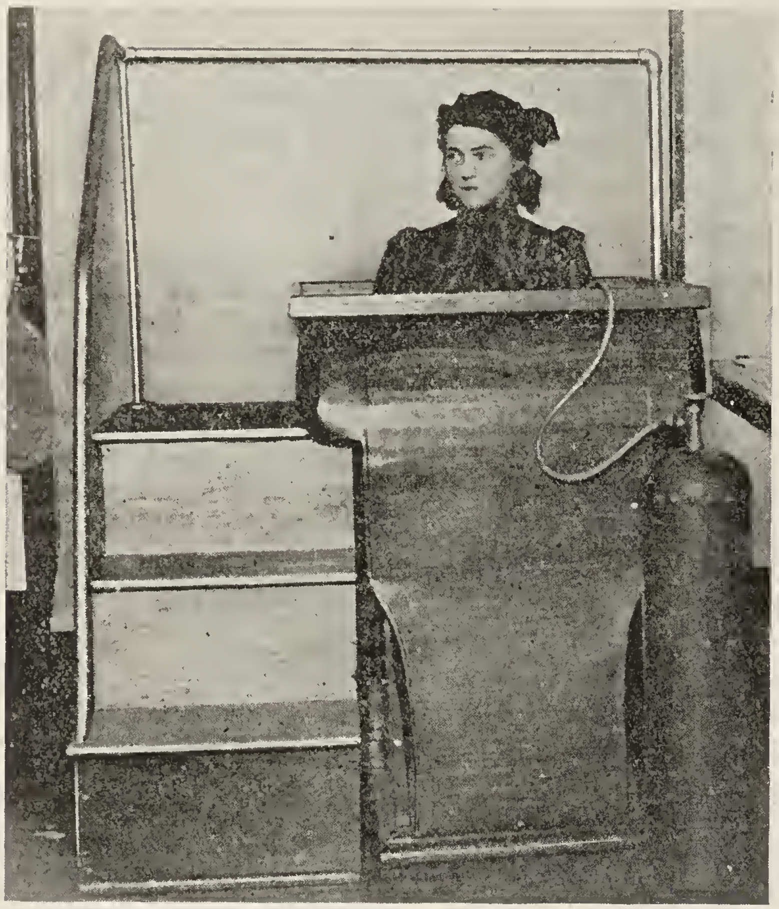
[1] Die Wirkungen des indifferent temperirten 36-35° C. Süsswasser und Kohlensaürebades auf den Blutdruck.

[2] The Therapeutical Application of Carbonic Acid Gas. *N. Y. Med. Journal,* Jan. 6 and 13, 1900.

[3] Carbonic Acid Gas; Its Physiological Action and Therapeutic Effect as seen in Emphysema of the Lungs, Anæmia, Whooping Cough, Dysentery and Impotence. *Medical News,* Oct. 29 and Nov. 5, 1898.

[4] Carbonic Acid Gas Baths and Douches. *Post Graduate,* May, 1902. Carbonic Acid Gas Baths. *Southern Clinic,* Sept., 1903.

Since I have not found in the literature a record of the effect of the dry carbonic acid gas bath on the number of the pulsations, I shall present one from my case book, but I shall first describe my bath tub. As the cut shows, it is of great simplicity —an imitation of the tubs used in Franzensbad. It is made of metal. The gas is taken from a cylinder containing the gas under 250 pound pressure. The bather takes his seat in the tub, the gas is turned on, and conducted through a rubber tube into the tub. A lighted candle is placed into the tub alongside the bather, the flame being on a level with the ensiform process or a little higher; at any rate below the level of the axillæ of the bather sitting in the tub. The light becomes extinguished when the gas coming from the cylinder has reached it. Now the gas current is shut off. The bather remains in the bath for about twenty minutes, or a little while longer. The pulse is counted every five or ten minutes, as long as the bath is continued.


Dr Rose's Carbonic Acid Bath Tub.

The following case was that of I. M., twenty years of age, suffering from neurasthenia, and the treatment was confined to the carbonic acid gas bath:

First bath—Pulse 92, 80, 72. Second bath—88, 76, 72, 80, 88. Third bath—88, 72, 76, 68. Fourth bath—80, 72, 60, 68. Fifth bath—80, 80, 72, 60. Sixth bath—80, 76, 68, 72.

In the next case, that of Mrs. H., thirty-five years of age, a severe form of neurasthenia, strychnine injections formed part of the treatment during twelve days. However, it shows the effect of the gas application on the number of pulsations, or at least how the number varied during the bath.

First bath—96, 104, 100, 116. Second bath—92, 108, 104, 88. Third bath—92, 88, 112. Fourth bath—104, 104, 84, 96, 92. Fifth bath—120, 100, 96, 100. Sixth bath—96, 92, 92, 96. Seventh bath—108, 100, 96. Eighth bath—88, 88, 92. Ninth bath—88, 88, 88. Tenth bath—104, 84, 92. Eleventh bath—96, 96, 92. Twelfth bath—88, 80, 80. Thirteenth bath—100, 88, 88. Fourteenth bath—104, 100, 92. Fifteenth bath—96, 96, 92. Sixteenth bath—88, 88, 84. Seventeenth bath—92, 88, 80. Eighteenth bath—88, 88, 92. Nineteenth bath—92, 84, 88. Twentieth bath—92, 88, 88.

I wish to express my thanks to Dr. E. C. Dent, medical superintendent of Manhattan State Hospital, West, on Ward's Island, for having allowed me to introduce the carbonic acid gas bath in his hospital. I wish also to thank the members of the staff of this hospital who took interest in the method, especially Dr. C. H. Holmes, who permits me to report the following case under his care as he has recorded it in the books of the hospital, and to have the sphygmographic tracing taken by him reproduced:

N. C., married, twenty-four years of age. September 15, 1903—Pulse 82, sufficient force. One intermission to the quarter (¼). Impulse at apex marked; also a thrill. Apex beneath left nipple, fifth intercostal space, three and a half inches from median line. Very loud murmur at apex, carried to left axilliary line. Mitral regurgitation. No direct mitral, no direct aortic, no direct pulmonary. Long heart with a dilated left ventricle.

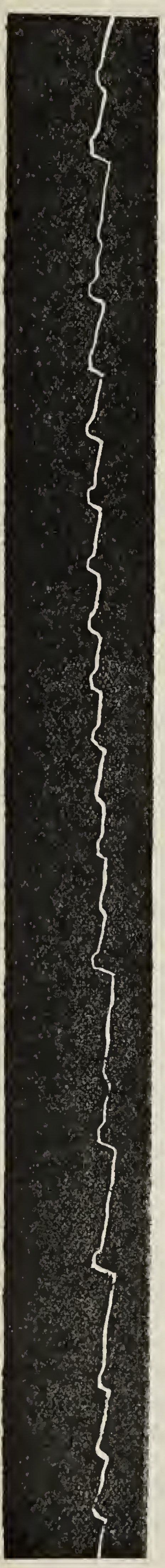
The following sphygmographic tracings furnish evidence of the effect of the carbonic acid gas bath on the heart:

More such tracings were taken in different cases of heart disease. I give only this one, however, because it furnishes conclusive evidence enough to establish the effect of carbonic acid.

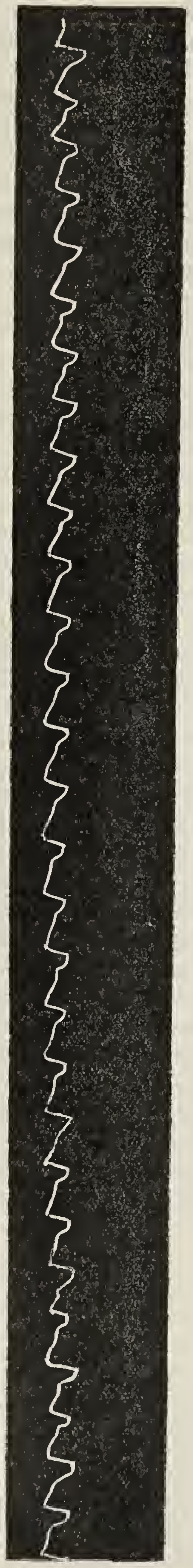
The Dudgeon sphygmograph was used in these tracings, the clockwork being regulated so that five inches in length equalled ten seconds in time. The amount of pressure applied to the vessel was always the same, both before and after the bath, three ounces being the average amount.

Unless great care is used in both the manipulation and adjustment of the sphygmograph, the results derived from a series of experiments like these are likely to be fallacious and misleading. With the proper amount of care, however, directed to the general running order of the instrument, and its careful and accurate adjustment to the vessel, in the series of observations on any given case, the sphygmograph furnishes a safe guide as to the changes in rhythm, force, and frequency of the pulse. The comparison of the tracings taken both before and after the baths in this line of experiments shows the following changes in the pulse *after* the bath:

Heightened arterial tension, shown by the broadening of the top of the percussion wave. Improvement in the rhythm of the pulse, shown by the obliteration of intermissions—the change as a rule from an irregular, poor volume pulse to a regular pulse of good volume. Other changes have been noticed, but in the series, taken as a whole, none have been so constantly present as those above mentioned.



Case of N. C.—Immediately before the bath.



Case of N. C.—When ten minutes in the bath.

To examine in a scientific way the effect of carbonic acid gas, externally applied, on the pulse beat and blood pressure, to secure reliable sphygmographic tracings and measurements of blood pressure is difficult. Comparisons have constantly to be made to determine whether the effect is really due to the gas or, in some degree, to manipulation. However, one thing is certain—there is a decided effect manifested by carbonic acid gas on the circulation and I hope to be able to arrive at positive and exact results. Meanwhile, I shall be well rewarded if I have succeeded in attracting the attention of those who have facilities to follow the matter up.

126 East Twenty-ninth Street.

TWO CASES OF UNCINARIASIS.[*]

By J. NORMAN HENRY, M. D.,
PHILADELPHIA,
PHYSICIAN TO OUT PATIENT DEPARTMENT, PENNSYLVANIA HOSPITAL; ASSISTANT PHYSICIAN, PHILADELPHIA HOSPITAL, ETC.

The two cases I here report occurred in the wards of the Pennsylvania Hospital; one in Dr. Meigs's wards, the other came under my care while substituting for Dr. Lewis. I am indebted to these gentlemen for the opportunity to report the cases.

Case I.—P. L., admitted June 20, 1903, discharged July 30, 1903. Twenty-four years of age. Laborer. Italian. Was admitted with a history of ten days' illness, with vomiting, nausea, frequent loose watery stools, and pain in abdomen.

He was anæmic and poorly nourished in appearance, the tongue was dry, coated, and tremulous, the teeth and gums covered with sordes. Examination of organs showed nothing abnormal. Temperature was normal and subnormal. Widal reaction was positive. Leucocytes, 10,000; hæmoglobin, 85 per cent.; red blood corpuscles, 5,900,000. Considerable diarrhœa at this period, which might be responsible for the seeming absence of anæmia.

A few days after admission the patient passed two round worms, and as the diarrhœa persisted, it was thought advisable to have the stools examined. June 27th. Several ascarides, ova of uncinaria, *Trichocephalus dispar, Oxyuris vermicularis;* no adult uncinaria found.

June 27th. Leucocytes, 14,500.

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[*] Read before the Medical Section, College of Physicians, November, 1903.

	Per cent.
Multiforminuclear	77.67
Small uninuclear	18.33
Large uninuclear	2.00
Eosinophiles	1.67
Transitional	.33

No nucleated reds.

The patient was starved and purged. Thymol was administered in hourly doses of ten grains for four hours, and in a few days no ova could be found in the stools after several examinations.

CASE II.—J. A., admitted December 26, 1902, discharged February 9, 1903. Twenty-seven years of age. Laborer. Italian. Admitted to hospital with a history of ten days' illness. Said that he had fever and "felt bad all over," was weak and suffered from backache. Face had been swollen for two days.

He was well nourished and muscular. Both cheeks over masseters were swollen and there was some trismus, but no glandular enlargement of cervical group present. There was also some puffiness under the eyes. Patient complained of a hard, dry, ineffectual cough. Widal was negative. Leucocytes, 8,400. Urine contained a faint trace of albumin. Temperature on admission, 102° F.; respiration, 36; pulse, 116. January 7th. Headache present with irregular fever. Leucocytes, 12,400; red blood corpuscles, 3,712,000; hæmoglobin, 45 per cent.

January 12th. Differential count shows:

	Per cent.
Small uninuclear	9.2
Large uninuclear	5.2
Transitional	5.6
Eosinophiles	36.4
Multiforminuclear	43.6

January 15. Differential count:

	Per cent.
Small uninuclear	20.8
Large uninuclear	4.0
Transitional	1.2
Eosinophiles	25.6
Multiforminuclear	48.0

January 14th. Numerous eggs of uncinaria found in stools. Temperature is now normal, patient weak and hungry. January 17th. Looks very anæmic, tongue coated and white. January 25th. Red blood corpuscles, 3,556,000; white blood corpuscles, 6,450; hæmoglobin, 45 per cent.

Differential count:

	Per cent.
Small uninuclear	21.0
Large uninuclear	6.0
Transitional	3.2
Eosinophiles	28.4
Multiforminuclear	40.0
Mast cells	.4

No adult worms found.

This patient was treated in a similar way and left the hospital after the third treatment, still having ova of parasites in the dejecta.

Dr. Longcope, who made the examinations in both cases, considered the worms to be of the old world type, judging from the size of the ova found. Unfortunately, no adult worms were found in either case, though the ova were present in various embryonal stages.

The discovery of the parasites in the first instance was entirely fortuitious, as there were no symptoms suggestive of their presence, and the examination of the blood afforded no clue. These facts suggest that the parasites might be present in any, or all, of the immigrants from Southern Europe in greater or less quantity.

The symptoms, according to Stiles, being dependent on the number of parasites present in the case, presumably in Case I there were few parasites and consequently few symptoms to indicate the condition, and yet the man was none the less a dangerous source of infection, because of the numerous ova extruded by each individual worm. When we consider that the disease produced by the parasites is one that induces physical degeneration and lack of development in those affected, and that the young are more prone to the affection than adults, we realize the importance of arresting its progress as early as possible, and of excluding from our country infected foreigners. Fortunately, in thymol we have a specific, which, however, failed in Case II, but would in all probability have been successful had the patient been willing to remain longer under treatment.

Case II presented symptoms of anæmia and leucocytosis, which resulted in a differential blood count being made, when the high percentage of eosinophile cells led to the suspicion and detection of the ova. In the matter of the source of infection and the means of entrance to the body, nothing could be learned. In view of the recent theories, that the parasite gains entrance through the skin of the feet in a great percentage of cases, and that the part played by water as a medium of infection has been greatly exaggerated, each case should be investigated carefully as to the occurrence of "ground itch" at any time, even as far back as ten years. Should this theory be sustained by investigation, preventive medicine would have in this instance a simple ally—namely, the constant wearing of shoes in an infected country, combined with ordinary cleanliness.

THE UNHEALTHFULNESS OF NOISE.

By J. A. GUTHRIE, M. D., U. S. NAVY,

PORTSMOUTH, VA.

It is needless to record statistics in speaking of this every day evil, wherein our tympani are assailed, making them callous, and when they are apparently inured, we deceive ourselves into believing there is no particular harm done. To begin with, I wish to ask, what objections can be brought against this statement, that noises create a disturbance of the nervous elements to such degree that they should be given a place in the category of disease causations? It is the object of this paper, to reason from pure observation.

Let us lay down for consideration some instances in the experiences of each of us. Certain mental records have sunk into the fertile lands of our memories, making their impressions accordingly. To begin with—we shall admit that, when a healthful condition of the nerves exists, we bear a greater amount of nervous shock with impunity; but by frequent repetitions of this shock, we are rendered less able to withstand the resulting jar.

We have acquired from nations now fallen into decay, and almost, if not entirely obliterated, an intuitive knowledge of many of our present customs—not to mention the suggestions and realizations of innumerable arts, inventions, and sciences, so useful to mankind. Each custom we adopt unwittingly, as new wants present themselves. We may go further, beyond the human being; is it not observable, in a few peculiarities, that even the lower animals lend their aid of suggestion? Call to mind the quail when disturbed in its foraging; by the suddenness of its flight, and the noise caused by its wings in rapid vibration, will it not disconcert the disturbers? If the enemy is startled, the birds may escape. Some of us in our maiden attempts afield have noticed this, if peradventure we forgot to use our fowling piece in time. Before the introduction of long distance warfare, a pretty successful scheme was in vogue among the Chinese and other Oriental nations, which, no doubt, played a prominent part in China's present magnitude. These people calculated upon fright as a means of conquest, thereby saving the lives of friends and foes alike, at the same time gaining the end in view. A score of bloated and elaborately painted wind dragons, may perhaps account for the empire's populous condition. The tiger roars prior to his leap upon the exquisitely sensitive fawn, thus gaining a moment's hesitation, and even before his prey is in motion, perhaps, his claws are upon it. The foregoing facts prove that sudden noise is disconcerting.

For no rhyme or reason, in these modern days, every new invention is accompanied by a new noise, so to speak. The snorting, bellowing, locomotive replaces the musical postchaise; the screeching, whistling, towboat has supplanted the galley, and the romance of sailing craft. What could be a greater innovation than the explosive firearm upon the bow and arrow? It can truly be said that, although the ancients may not have been so cleanly as we, they certainly were less noisy. During my visit to Gibraltar, in 1897, I was informed that while at target practice and drill with great guns in the fort, the loss in frangible property in the city a half mile distant amounts to not a little sum; and I may instance a dozen other experiences whereby noise (and not a woman) was at the bottom of misfortune. I once knew a highly respected and venerable gentleman farmer whom I asked one day why he did not take a lantern in his travels over lonely roads at night; his reply was, that he carried a revolver; this would give him enough light and noise, too, if need be, in case of attack. He evidently did not wish to attract attention to himself, unless waylaid, and then he had enough latent light, and sound stowed away ever ready. In certain landlocked harbors I have heard the inhabitants complaining of tugs, and other noisy boats, blowing off their whistles, especially those known as calliope whistles; most of it is said to be done in a spirit of fun on the part of tug captains; if so, they deserve a compensation suited to the crime. Have not the cartoonists invented such caricatures as the tired and irritated provincial racking his brains in the uproarious city, unable to collect his faculties? And has the father, nightshirted and capped, marching the colicky infant in the "wee sma' hours o' night," escaped the humorous vein of such artists? All these things call forth the necessity for a scientific investigation of useless noise.

In a few cities, it has been proposed to pass an ordinance against the ringing of church bells, which, to some, disturb the "day of rest"—but why not include in this ordinance, *for week days*, the shouting of street hawkers, the clanging of other varieties of bells, the steam whistle of the factory, and last, but not least, our young vender of the daily press, with his shrill tenor, announcing the never ceasing "extra!" How much better is the silent signal, both in war and in peace! Take the popular game of football; we find the most efficient teams those who have mastered the silent signals thoroughly. One reason why the modern war vessel is so deadly, is because it is manœuvred by electric signals—silent commands are sent from the conning tower by the captain to each of his subordinates, shut off from him and each other by walls of steel. When an order is indicated upon a dial, by electrical transmission, one receives the same in a tranquil state of mind, but if the order is *shouted* "at" him by one, two, three, or more in rapid succession (as of yore), then there is excuse for confusion in carrying out commands.

In this sketch a good deal is left out, and undeveloped; so I beg much leniency for my manner of launching it forth, and ask those interested most to add on as it were and to consider this as merely an " advance guard."

Our Subscribers' Discussions.

A SERIES OF PRIZE ESSAYS.

[*Questions for discussion in this department are announced at regular intervals. So far as they have been decided upon, the further questions are as follows:*

XXX.—What are your achievements in improvising surgical instruments and appliances? (Under adjudication.)

XXXI.—By what means have you ever saved a person supposed to have been drowned? (Under adjudication.)

XXXII.—How do you treat insomnia? (Answers due not later than August 16th.)

Whoever among our subscribers (with the limitations mentioned below) answers one of these questions in the manner most satisfactory to the editor and his advisers will receive a prize of $25. No importance whatever will be attached to literary style, but the award will be based solely on the value of the substance of the answer. It is requested (but NOT REQUIRED*) that the answers be short, if practicable, no one answer to contain more than six hundred words.*

Only subscribers to the New York Medical Journal and Philadelphia Medical Journal *(including regular and volunteer officers of the Medical corps of the United States Army, Navy, and Marine Hospital Service, commissioned or under contract) will be entitled to compete, and all persons known to be engaged in medical journalism are disqualified. This prize will not be awarded to any one person more than once within one year. Every answer must be accompaned by the writer's full name and address, both of which we must be at liberty to publish.*]

The prize of $25 for the best essay submitted in answer to question XXIX has been awarded to Dr. Samuel Stalberg, of Philadelphia, whose article appears below.

PRIZE QUESTION NO. XXIX.

THE TREATMENT OF NOCTURNAL INCONTINENCE OF URINE.

By SAMUEL STALBERG, M. D.,

PHILADELPHIA.

The treatment of enuresis nocturna should begin with attention to any local or general condition which may act as a cause of the disease or help to aggravate it. Enuresis is a neurosis, in the majority of cases there being present excessive irritability of the muscular fibres of the bladder and of the reflex nervous mechanism concerned in the process of micturition; and, while it is true that in many cases the nervous mechanism of the bladder is alone at fault, the enuresis being the only symptom, it can readily be seen how such local conditions as an adherent prepuce or seat worms, through the intimate correlation of the nerve supply of those parts, or such a general condition as anæmia, which is known to increase reflex action, would stand in a causal relation by supplying the stimulus to that reflex action.

The chief conditions which may increase the tendency to enuresis are: Phimosis, preputial adhesions, pin and thread worms, balanitis, vulvitis, highly concentrated and hyperacid urine, constipation, and, finally, anæmia and malnutrition.

For phimosis, stretching of the foreskin should first be tried, and, if this is unsuccessful, circumcision should be performed. Preputial adhesions should be broken up. Ascarides or oxyurides should be treated by calomel and santonin. Balanitis requires cleansing of the glans and the use of some sedative powder or ointment. Vulvitis should receive its appropriate treatment. Constipation should be controlled by some simple laxative or by dietary measures, or, in some cases, by enemata. The urine should be examined in every case, and if it is found to be highly acid, the treatment should consist in the free administration of water, excepting at night, and the use of alkaline drugs. Either liquor potassæ, three to five drops in a tumblerful of water, t.i.d., or the following prescription should be ordered:

℞	Potassium citrate	½ ounce;
	Spirit of nitrous ether	3 fluid drachms;
	Water, enough to make	4 fluid ounces.
M.	Sig. A dessertspoonful in water every three hours.	

Anæmia should be treated by the usual hygienic and dietary measures, and, in addition, the syrup of the iodide of iron, in five-drop doses, t.i.d.; or the following pill should be given three times a day:

℞	Iron carbonate	30 grains;
	Extract of nux vomica	2 grains;
	Extract of gentian	7½ grains.
M.	Divide into 30 pills.	

Cases of malnutrition should receive their appropriate treatment. It is in these cases that strychnine, instead of belladonna, should be used; but this will be discussed later.

We now come to the treatment proper of enuresis nocturna. While a few cases are undoubtedly cured by removing any one or more of the above mentioned causes, either by the methods suggested, or by any other proper mode of treatment, some are only relieved, and the majority require further treatment. This treatment should not be delayed long, and may be begun while the local condition is being removed. In those cases —and they are in the majority—where no causal condition is discoverable, the patient being perfectly healthy, except for the enuresis, this treatment must, of course, be instituted immediately.

The diet, while not much restricted, should aim at simplicity, and the eating of sweets should be interdicted. The amount of water drunk in the afternoon should be limited. The patient should be accustomed to empty his bowels and bladder before going to bed. It is very important that the child should be awakened every night about an hour before its usual time of bed wetting.

Elevation of the foot of the bed, to keep the urine from impinging against the vesical trigonum, may be tried if the child will tolerate it.

Belladonna is the drug *par excellence*, and its use should not long be delayed. Atropine is preferable to other preparations, as it is of more uniform strength. The following prescription should be ordered:

℞ Atropine sulphate..........................1 grain;
Water...1 ounce.

M. Sig. Two drops at 4, 7, and 10 p. m. for a child five years old.

One drop of this mixture represents $^1/_{480}$ of a grain of the alkaloid. A child of four, five, or six years should take two drops of this preparation, or $^1/_{240}$ of a grain of atropine, at the hours mentioned. This is to be increased a drop each day until five drops are taken three times a day, if necessary. The drug may be pushed to its physiological limit. After that the dose should be reduced. The mother should be entrusted with the medicine, and be warned that it is poison.

If this method is effective, the atropine, after controlling the enuresis, should be reduced, but its use must be continued for some months after the disappearance of the symptoms. If, when the drug has been withdrawn, there is a relapse, its use should immediately be resumed.

In cases requiring them, such measures as sponging the body with cold water or water and alcohol, outdoor exercise, etc., should be advised.

A word as to the probable action of belladonna in enuresis. In this condition, during sleep, when the inhibitory influence of the cerebral cortex is in abeyance, the slightest stimulus is sufficient to set in active operation the muscular and nervous mechanism of micturition, producing a simultaneous contraction of the detrusor urinæ and suspension of contraction of the vesical sphincter, when involuntary micturition results. Belladonna probably overcomes this by both stimulating the contraction of the sphincter muscles and acting as a sedative.

If belladonna, given for months, has not succeeded in controlling the condition, strychnine should be added. It may be given separately or in combination with the atropine, in the dose to a child of five, of $^1/_{200}$ of a grain three times a day. In cases of debility and malnutrition, where it may be inferred that the fault at bottom is a weak and lax sphincter, strychnine should be the only drug used.

If belladonna and strychnine are both inefficient, rhus aromatica should be tried. The dose is ten drops of the fluid extract, in water, three times a day. Quinine and antipyrine may be tried after rhus, either one in the dose of two grains three times a day. Ergot may do more harm than good, and should not be used.

If the above named measures, tried for a considerable time, fail to cure or relieve the enuresis, mechanical means—the sound, electricity, and instillation of silver nitrate—must be resorted to. At first, the sound should be tried. A cold steel sound, of such size that it enters the bladder without force, should be passed every fourth day for a month. This is often beneficial. If not, electricity is in order. One electrode is placed above the pubes or on the perinæum, and the other over the sacrum. Or—what should be tried next—one electrode is placed over the perinæum and the other in the urethra. The urethral electrode is shaped like a sound, and is insulated to within an inch of its extremity. In female patients the electrode is placed either in the urethra or the vagina. Fifty slow interruptions are given, and pain must not be caused. The treatment is repeated every fourth day. Perfect asepsis is necessary, or cystitis may be produced. This form of treatment is tried for a month or two, when, if it is unsuccessful, the instillation into the membranous or prostatic urethra of three drops of a two to five per cent. solution of silver nitrate should be practised every third day, for about two months. If this fails, electricity should be again tried for three or four months, or longer.

Hypertrophied tonsils and adenoids probably influence enuresis by causing deep sleep produced by the semiasphyxiating condition their presence induces, or by increasing the general nervous irritability; and since their removal has in some instances effected a cure, they should, whenever present, be removed on general principles.

Finally, children should never be chastised or humiliated for this defect; and older ones should be given to understand that, while their shortcoming is no fault of theirs and no cause for humiliation, they must exert their will power to overcome it.

1331 South Sixth Street.

Dr. Edward R. Pfarre, of New York, writes:

Incontinence of urine signifies "the inability of the bladder to restrain the escape of its normal contents." However, this paper will not include such congenital or acquired abnormities of the bladder, as exstrophy, suprapubic, perineal, rectovesical or vesicovaginal fistulæ, or displacement of the ureters into the urethra. Nor is the involuntary dribbling accompanying imperious or precipitate urination within the boundary of this definition.

When due to phimosis with adherence of the prepuce or to an adherent hood of the clitoris, circumcision or the loosening of the adherent hood will cure the condition. The hood of the clitoris, or the prepuce, when once stripped loose should be cleaned and anointed daily to prevent readherence.

If the meatus urinarius is stenotic or if the posterior boundary of the fossa navicularis is contracted, free incision should be done and the orifice dilated until healed, to prevent readherence. When vaginitis is an ætiological factor, douches of potassium permanganate, 1 to 4,000, or a hot saturated solution of boric acid are serviceable.

Rectal irritations, such as fissures and pin worms, are sometimes a cause. The fissure should be treated by divulsion of the sphincter and currettage of the fissure. The pin worms should be abated by the internal administration of santonin or aloes, combined with enemata of infusion of quassia.

In certain cases of posterior urethritis and prostatitis, whether gonorrhœal or otherwise, the sensibility of the posterior urethral mucosa is so increased that the passage of a single drop of urine into the posterior urethra caused involuntary urination. In these cases massage of the prostate every third or fourth day, followed by an instillation of ten to twenty drops of a one per cent. silver nitrate solution into the posterior urethra, is indicated. Stricture, especially when located near the compressor, may constitute sufficient irritation to cause incontinence. Then, naturally, dilatation of the stricture will cure the incontinence.

In acute inflammations of the bladder the pain is usually so severe that the patient awakens every few minutes to urinate; however, in extreme fatigue he may sleep soundly and the contractile efforts of the viscus will extrude urine at short intervals. The treatment in these instances must be that of acute cystitis.

In chronic interstitial cystitis the tendency of the bladder is toward contracture. After its capacity is diminished to a few ounces the irritation of its distention may cause incontinence, more especially if the patient is a sound sleeper with poorly marked reflexes, or if he is in a state of extreme fatigue. The treatment consists of hydrostatic distention on alternate days, increasing the capacity a few cubic centimetres each day until that of eight or ten ounces is attained. In concentric hypertrophy of the bladder the same factors present and the same treatment is indicated. Many times the incontinence is due to intravesical growths or to calculi. Then the viscus must be emptied and drained.

In all the foregoing conditions, if the causes are maintained for any length of time, a habit results and the incontinence may remain, even after the removal of the cause. To combat this, other adjuvant measures should be employed, such as restriction of liquids within three hours before bedtime, urination immediately before going to bed, elevation of the foot of the bed, sleeping on the side instead of the back, the administration of atropine sulphate to its physiological effect, and moral suasion. The need of improvement of the general health is so evident that it scarcely needs mention.

In the neuroses and psychoses nocturnal incontinence is quite frequent, and usually no local irritative cause can be found. Nocturnal incontinence usually accompanies epilepsy with insanity (especially during convulsions), general paresis, delirious intoxications, chorea, general psychoses, dementia præcox, hemiplegia and cerebral hæmorrhages, meningitis of the base and cord, myelitis, and cerebral and cerebellar tumors.

It is in this field that the epidural injections of Cathelin have special worth. They consist in the injection of sterile saline solution (beginning at 5 c. c. and increasing to 35 c. c.) into the epidural space. The opening is found by passing two fingers down the apices of the sacral spinous processes until the last two are reached; then an imaginary equilateral triangle is formed with its base extending from one tubercle to its opposite fellow, the apex pointing upward. A needle about 3¼ inches in length is then inserted into the centre of this triangle at an angle of about 40° to the sacral curve. As soon as the bone is touched, the needle is then withdrawn a short distance, depressed through an arc of 20°, and inserted to its shoulder. If the puncture is correctly made, an injection of a small quantity of the solution will cause no bulla above the point of the needle.

The procedure should be done with the usual antiseptic precautions, and the punctured point covered with collodion. The injection should be done twice weekly or on alternate days, increasing 5 c. c. each injection, until the patient is cured.

With the incontinence accompanying tabes dorsalis this treatment often fails. It is best in this condition to administer full doses of strychnine and to massage gently the internal sphincter with the finger per rectum every second or third day.

Nocturnal incontinence is many times the sequela of a perineal section or a prostatectomy during which the compressor urethræ has been divided. In these cases endeavors may be made to so stimulate the remaining fibres that they may compensate for the loss of power of the others. This is best accomplished by the Faradaic current with one pole in the posterior urethra, the other pole either in the rectum or above the pubes.

Hyperacidity, hyperalkalinity, and phosphaturia are often contributing factors in nocturnal incontinence. The two latter conditions are best treated by the correction of intestinal disturbances and the administration of some urinary antiseptic, e. g., boric acid, five grains every four hours, or urotropin, five grains every four hours. Hyperacidity should be relieved by an alkali.

Diabetes is often the sole cause of nocturnal incontinence. Amelioration of the general condition alone may relieve incontinence from this cause.

Therapeutical Notes.

Camphor As An Anæsthetic.—*Journal de médecine interne*, for January 15th, ascribes to M. Leredde the following formulæ for the use of camphor as an anæsthetic for local use in itching affections:

I. ℞ Camphor ....1 gramme (15 grains);
Oil of sweet almonds....10 grammes ($^{1}/_{3}$ ounce).
M.

II. ℞ Lanolin ....90 grammes (3 ounces);
Camphorated oil.........10 grammes ($^{1}/_{3}$ ounce);
Chloral hydrate...........1 gramme (15 grains).
M.

III. ℞ Zinc oxide
Chalk
Camphorated oil
Lime water } of each............25 grammes (6¼ drachms).
M.

Acute Asthma.—*Presse médicale*, for May 18, 1904, quoting *Le Scalpel*, No. 36, 1903, states that Aronsohn of Ems has succeeded in stopping abruptly an acute asthmatic seizure by painting the nostrils with a 1 to 1000 solution of adrenalin hydrochloride. The treatment is only palliative. If the congested parts are not easily reached, one of the following formulæ may be tried:

℞ Adrenalin hydrochloride, 1 to 1000...........1 part;
Liquid petrolatum...........................2 parts.
M. For a spray.

℞ Adrenalin hydrochloride, 1 to 1000......1 to 5 parts;
Lanolin
Petrolatum } of each.......................5 parts.
M. Place a quantity the size of a pea in the nostril.

Potassium Bichromate in Frambœsia.—Numerous authors having considered frambœsia as a manifestation of syphilis, have advised specific treatment. Cannac, a French naval surgeon, having failed to get results along these lines, used potassium bichromate as follows, according to *Semaine médicale* for April 20, 1904: He prescribes a large bath of soapy water, and having carefully decapitated each tubercle with a forceps, cauterizes it with a 20 per cent. solution of the bichromate, repeating the application daily. The treatment is painful, but good results are manifest on the second day, and, in a month or so depigmented areas replace the eruption.

Sodium Salicylate in Intravenous Injections.—*Semaine médicale*, for April 20, 1904, states that Mendel has obtained good results by the intravenous injection of sodium salicylate in rheumatic polyarthritis. Mendel selects one of the large veins of the arm and dilates it by alternately tightening and loosening the ligature before finally making it taut. Besides, in order to prevent local irritation and pain, caffeine is added to the salicylate:

℞ Sodium salicylate......8¾ grammes (131¼ grains);
Caffeine ....1¾ grammes (26¼ grains);
Sterilized water, enough to make........50 grammes (1$^{2}/_{3}$ ounces).
M. Inject 2 grammes (30 minims).

In a grave case, the injection may be used twice daily. In eighty cases, comprising mono- and polyarticular rheumatism, sciatica, lumbago, and rheumatic pleurisy, Mendel has invariably had satisfactory results, even after other measures had proved inefficacious.

Infantile Asthma.—*Journal des praticiens*, for June 25, 1904, recommends thorough exploration of the buccal and nasal cavities and regulation of the diet, suppressing meat. During an attack, fumigation is necessary:

℞ Powdered stramonium leaves
Powdered belladonna leaves } of each..15 grammes (½ ounce);
Powdered potassium nitrate.3 grammes (45 grains);
Powdered opium....75 centigrammes (10¼ grains).
M. Place on a red hot shovel, or burn in a saucer.

Morphine hypodermically is sometimes required. Atropine has been advised in gradually increasing doses, but the effect must be watched. Alternation of arsenic and the iodides is a useful treatment between attacks:

℞ Potassium iodide
Tincture of lobelia } of each.............5 grammes (75 grains).
Syrup of bitter orange peel.120 grammes (4 ounces);
M. Coffeespoonful twice daily.

The foregoing should be given for fifteen days and then replaced by:

℞ Sodium arsenate........3 centigrammes ($^{9}/_{20}$ grain);
Potassium bromide.........3 grammes (45 grains);
Syrup of orange flower..100 grammes (3$^{1}/_{3}$ ounces).
M. Coffeespoonful twice daily.

Alternate the two prescriptions every two weeks.

Cardiac Adynamia in Infectious Diseases of Children.—*Nouveaux Remèdes*, for June 24, 1904, recommends:

℞ Sparteine sulphate....10 centigrammes (1½ grains);
Distilled water............25 grammes ($^{5}/_{6}$ ounce);
Syrup of bitter orange peel..20 grammes ($^{2}/_{3}$ ounce).

M. For a child three years of age, 2 coffeespoonfuls daily; five years, 5 coffeespoonfuls; ten years, 10 coffeespoonfuls daily.

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OUR NURSES' TRAINING SCHOOLS.

In our issue for June 18th we published a "signed editorial," by Dr. G. Frank Lydston, of Chicago, in which the writer spoke in terms of severe criticism of some of the practices of hospital training schools for nurses as they had come to his knowledge. Necessarily Dr. Lydston could not affirm, and did not mean to be understood as affirming, that the features which he criticised were to be found in all the training schools of the country, but in a letter that we have since received from him he says: "It would not be fair nor gracious for me to mention any institution specifically, but I do not hesitate to say that certain training schools are using inexperienced undergraduate nurses in private nursing in the furtherance of hospital 'graft.' I am glad to know that New York and Philadelphia are so free from the evils I have attacked." In consonance with this, he admits that the title of his article may have been too sweeping.

Dr. Lydston also says: "I have no prejudice against training schools. I entertain the belief, however, that in many instances the course of training is largely humbug, and that imposition is being practised, not only upon the women who enter them, but upon the public." He then gives several specific instances of the incompetence of nurses sent out by hospitals to do private nursing, their services being charged for at the usual rates. The instances cited by Dr. Lydston are convincing, and we regret that we cannot, because of the limitation of our space, give them in detail.

It has for several years been our impression that the larger training schools of New York, whatever their faults may be, were not open to the particular criticisms brought forward by Dr. Lydston, though he says of one of our hospitals that, unless its class of cases has changed of late years, he does not believe that its training advantages have improved much. Last week we published a letter from Mrs. Francis M. Scott, a lady well entitled to speak for the Bellevue training school and doubtless also for the schools of the other leading hospitals of New York, in which she abundantly corroborates our impression. We have since received a letter of like purport, going into somewhat minute details, from Dr. W. G. Elmer, of Philadelphia. Both Mrs. Scott and Dr. Elmer confirm another of our impressions, namely, that some of our great hospitals make a mistake that is quite the reverse of one of those pointed out by Dr. Lydston, in that they treat their nurse pupils "not wisely, but too well"—pampering them, in short, and thus unfitting them in great measure for a career necessarily involving much that may seem menial.

We think there can be little doubt that many of our hospitals are striving in a wrong direction, that of making their nurse graduates learned in medicine and surgery rather than efficient in the work of nursing, and we thoroughly endorse what the *Boston Medical and Surgical Journal* said in its issue for June 30th. "We have from time to time," says our Boston contemporary, "commented on the development of nursing, and have expressed a certain skepticism as to the ultimate product of the increased educational facilities. We certainly can have no objection to education of any sort, provided only it does not take the place of that for which the nurse alone exists—the care of the sick. We must not lose the nurse in developing the profession of nursing."

Now, as to the length of time for which a nurse pupil should be in training before she may be fit to be sent out to private nursing. The term, it seems, has lately been increased from two years to three. While, as a general proposition, it is undeniable that protracted work as an undergraduate tends toward the pupil's perfection, we doubt if the time has yet arrived when, all things considered, it is wise to lengthen the nurse pupil's term of service. Trained nurses are still urgently needed by the public; there are too few of them. Of doctors, however, there are already too many. Yet the term of service of the medical officer of the house staff has been cut down from two years to a year and a half, though not very recently. In other words, nurses, of whom there is a dearth, are reduced in number, while doctors, of whom there is a superfluity, are multiplied. Moreover, if a young graduate in medicine can extract from eighteen months of hospital work all the practical experience that he ought to add to his theoretical training, certainly an intelligent young woman can learn nursing in a year, as Dr. Lydston contends—provided she is not loaded down with medical and surgical and obstetrical textbooks and with didactic lectures. She will then be a nurse and will know enough to refrain from playing the bird of wisdom in afflicted families to which she may be summoned.

THE IMMIGRANT OF DEFECTIVE PHYSIQUE.

In an interesting article published in a recent number of the *Popular Science Monthly* Dr. Allan McLaughlin, of the Public Health and Marine Hospital Service, clearly points out that our exclusion of immigrants who are physically defective, though not perhaps to the extent of being manifestly destined to become a charge upon the public, should be more rigid. While, he says, we debar the immigrant with trachoma, syphilis, leprosy, favus, insanity, epilepsy, or idiocy, the authorities are apt to put too lenient a construction upon the medical officer's certificate of mere physical defectiveness, and let the immigrant slip through to swell the hordes of other defectives that people our worst tenement house districts and eke out their miserable lives in sweat shops. It is immigrants of the physically defective sort that for the most part fall into such conditions, while the robust penetrate to the interior, where in due course of time they make little homes for themselves and really become amalgamated with our own people. During the last decade those of the defective class have been increasing in proportion more than ever before among our immigrants, and this increase involves a veritable danger to the public health.

In great measure this danger takes the form of pulmonary tuberculous disease, against which we, in common with the rest of the civilized world, are now making special efforts. Everybody knows that the dense herding together of ill conditioned and underfed people, living in squalor and an almost entire absence of sunlight and ventilation, tends more than any other factor to spread disease of a communicable nature, particularly tuberculous disease. Yet there are among us certain so called philanthropists—so called chiefly by themselves—who urge that it is "selfish and inhuman" to bar out immigrants simply because they are physically defective without being actually diseased at the time, but we trust that these "philanthropists" will never be powerful enough to block such additional legislation as may be needed to check dangerous alien additions to our population. Such legislation, as Dr. McLaughlin suggests, need not apply to parents coming here to join their children, provided the children have established a home and show evidence of their ability to care for their parents properly.

PAROXYSMAL CONGENITAL CYANOSIS.

Cases in which the "blue baby" is blue only at times are among the occurrences that are apt to elude explanation by the mere fact of their being rare. Two examples have recently been reported by M. Variot (*Journal des praticiens,* April 23rd), and in one of them an explanation that seems at least plausible was furnished by M. Marey.

One of the cases was that of a girl baby, twenty months old, who was ordinarily of the natural hue, but was attacked every day with loss of consciousness. The paroxysm began with a cry, the face and limbs became of a blackish blue, and at the end of a quarter of an hour the attack was at an end. In the intervals the child appeared to be in excellent health, and in particular it is stated that there were no disorders of nutrition, such as clubbing of the fingers. On auscultation, a loud, rough murmur was heard in the precordial region, at the level of the pulmonary orifice. We are not told of the subsequent progress of this child.

The other child, twenty-one months old, died during such an attack. While living, it had had crises accompanied by coma, stertorous breathing, and frothing at the mouth. The blue tint was very deep. On auscultation, there were recognized signs of pulmonic constriction, with a systolic souffle at the base of the heart and on the left side. This souffle, however, disappeared completely during the paroxysms, which occurred every two or three days and lasted from morning until the middle of the afternoon. At the post mortem examination the right ventricle was found very large, and the left ventricle retracted. Both the pulmonic and the aortic orifices were seated in the wall of the right ventricle, but the pulmonary artery was very narrow. The left ventricle, deprived of vessels, emptied into the right ventricle by an opening in the sæptum.

M. Marey, to whom the specimen was submitted, attributed the paroxysms to intermittent spasm of the very restricted infundibulum from which the pulmonary artery arose—a supposition supported by the disappearance of the systolic souffle, the souffle being caused by the passage of blood into the constricted pulmonary artery. As soon as this vessel no longer received blood, the souffle necessarily ceased. Moreover, the pulmonary artery no longer receiving blood, oxygenation of the blood ceased in the lungs; consequently cyanosis appeared, also asphyxia, loss of consciousness, and the other disturbances present in the case.

THE FAMILY PHYSICIAN'S CLAIM TO A CASE.

I.

As I understand it, the English system of medical ethics recognizes the relationship of "family physician" to such a degree that it is considered of very doubtful propriety and wisdom for a young man to seek for practice in the neighborhood of an established practitioner, unless as the assistant of another physician. Obviously this rule cannot be so strictly applied in the large cities as in the smaller communities. In this country no such feeling exists, except in the sense that the advent of a stranger in a small village manifestly incapable of supporting any increase in the supply of physicians necessarily implies a battle for existence, with all its sordid details.

On the whole, professional sentiment seems to favor the idea that every patient should be free to select his attendant for any particular illness, but that, in a purely emergent case or during the absence or disability of the family physician, the ministrations of a stranger should be merely temporary. Excepting that physicians are required to register by counties in some States and that the license to practise is confined to States, the matter of propinquity of a patient does not seem to have any ethical status one way or another. After complying with legal requirements, a physician may divide his practice between two cities, without loss of caste, and he is certainly free to respond to a call to a particular case at any distance, subject only to ordinary limitations. Even legal requirements as to license and registration are waived, usually by statute and certainly by custom, in the case of a consultant called from one geographical unit to another. On the other hand, it would be considered unethical and in most cases illegal for a physician at a distance from his legal residence to seek other cases, to display a sign or professional card, or in other ways to attempt to practise, unless he was definitely employed to attend to a travelling party or a specially assembled community, as in a camp at a distance from other physicians.

Whatever may be thought of the desirability of obtaining mutual concessions as to the licensure in one State of physicians moving from another to assume permanent residence, all statutory law should provide for the convenient access of physicians for moderate distances across boundary lines and for access, in *bona fide* consultation, at any distance. France and Germany allow a zone of ten miles from the boundary, in either direction, which is free to regularly licensed practitioners of either country. On the other hand, I recall an incident of an American physician called into Canada in consultation who, in some way, offended the regular attendant and who was haled into court by the latter and fined the amount of his consultation fee for violating the medical practice law. Such an incident is disgraceful to the two countries concerned for failing to provide convenient reciprocity laws. One occasionally finds a physician, usually in a rather remote corner of a large city, who speaks of "my territory" and who resents the entrance of a physician from another part of the city. Such a notion is obviously absurd, and it is rarely held by any but those who have attempted to flee from ordinary competition because of a correct estimation of their own value as physicians.

In the old days, when there were no specialists, when there was little attempt to cure chronic, ambulant cases or to secure cosmetic results, the patient was usually confined to bed, at least to the house, and the formulation of rules as to the ethics of interference was simple. In these days, when the people expect to have a dentist, an oculist, and perhaps a laryngologist, entirely aside from their regular medical attendant, and when they have become accustomed to regard medical specialism as a normal condition, their allegiance to a family physician is often weak. Even when there is no need of special skill of any kind, they are prone to pass from one physician to another simply for the sake of experiment or as a matter of convenience. Moreover, the facts that so many persons travel and that so few pass their entire lives in one place tend to do away with the family physician in the old-fashioned sense. To a certain degree this same instability applies to the medical profession. Country physicians, in particular, are rather prone to move from one place to another for somewhat trivial reasons, and many physicians are, comparatively speaking, rolling stones.

It is very evident that any discussion of the claim of the family physician upon a case depends upon the definition of family physician, and this definition is by no means easy. One of the most bitterly eloquent invectives that I ever heard was directed by one physician at another who had "stolen" the former's patient. As a matter of fact, the physician who felt himself aggrieved had appropriated the patient from the practice of the latter. All things considered, I am inclined to believe that the simplest and most common sense rule is that generally followed to-day—that a patient is free to choose his physician and to discharge him as he sees fit, and that a physician summoned to assume charge of a patient need insist only that no other physician is, at the same time, in charge. The practical application of this rule would be easy if physicians and patients alike would act in good faith. Unfortunately, patients are very prone to seek the unbiased opinion of several physicians by consulting them at their offices or summoning them to their houses, without notifying them that others are really in attendance. From the strictly impartial standpoint, we can scarcely blame the laity for this practice. We cannot disguise the fact that a formal consultation does not yield to the patient the exposition of possible errors or the uncolored presentation of differing opinions which we should desire in regard to the services of a lawyer or any other person from whom we wanted the best service at the minimum cost. I do not intend to disapprove of the common judgment of the profession with regard to consultations, but merely to point out how a person with no sense of loyalty to our profession, but seeking his own welfare in a purely selfish manner, is inclined to view the same matter in an entirely different light.

A. L. Benedict.

IDIOPATHIC PRIAPISM.

Apart from recognized disease, persistent priapism seems to be rather rare. Dr. Mainzer, of Jena (*Deutsche medizinische Wochenscrift,* 1903, No. 44; *Berliner klinische Wochenschrift,* April 18th), reports the case of a man, forty-two years old, who had on several occasions suffered from priapism lasting for a day or two and arising from ungratified sexual excitement, since his wife, with whom he slept in the same bed, had some abdominal disease that made coitus out of the question. Finally there was a seizure in which the erection lasted for nine days and yielded only to protracted warm baths and suppositories of opium and belladonna. Following these attacks of priapism there was impairment of the erectile power of the penis lasting for several weeks.

QUESTIONABLE "DETAIL WORK."

A pharmacist who acknowledges having been the writer of a letter published in one of the newspapers lately, accusing physicians of complicity with the manufacturers of proprietary preparations to the extent of accepting a percentage on sales of the preparations made on the strength of their prescriptions, thinks that our comments on the charge were founded on misapprehension. We said, in substance, that we had never seen in proprietary literature any proposition that would lead to such complicity. The pharmacist in question now says that he had no reference to circulars, and declares that the arrangement is made *viva voce.* If that is the case, there is most questionable "detail work" going on.

A SEASONABLE CHARITY.

Reference to our news columns will show that the St. John's Guild has begun its annual summer work by putting the floating hospital for sick children and their mothers in commission. The present weather makes the idea singularly attractive and only a small sum is needed to produce a definite beneficial effect. Twenty-five cents will give a baby an entire day's outing, while one dollar will launch a whole family.

News Items.

Society Meetings for the Coming Week:

Monday, *July 11th.*—New York Academy of Medicine (Section in General Surgery); New York Academy of Sciences (Section in Chemistry and Technology); New York Medicohistorical Society (private); New York Ophthalmological Society (private); Gynæcological Society of Boston; Burlington, Vt., Medical and Surgical Club; Norwalk, Conn., Medical Society (private); Medical Association of the Greater City of New York; Society of Medical Jurisprudence.

Tuesday, *July 12th.*—New York Academy of Medicine (Section in Genitourinary Surgery); Medical Society of the County of Rensselaer, N. Y.; Newark, N. J., Medical Association (private); Trenton, N. J., Medical Association; Clinical Society of the Elizabeth, N. J., General Hospital and Dispensary; Northwestern Medical Society of Philadelphia; Practitioners' Club, Richmond, Ky.; Richmond, Va., Academy of Medicine and Surgery.

Wednesday, *July 13th.*—American Microscopical Society of the City of New York; Society of the Alumni of the City (Charity) Hospital; Lenox Medical and Surgical Society (private).

Thursday, *July 14th.*—New York Academy of Medicine (Section in Pædiatrics); New York Academy of Medicine (Section in Otology); Brooklyn Pathological Society; Medical Society of the County of Cayuga, N. Y.; South Boston, Mass., Medical Club (private).

Friday, *July 15th.*—New York Academy of Medicine (Section in Orthopædic Surgery); Clinical Society of the New York Postgraduate Medical School and Hospital; Manhattan Medical and Surgical Society (private).

Change of Address.—Dr. Franklin S. Davis, to 712 Hamilton Boulevard, Peoria, Ill.

Dr. Edward Wallace Lee, to Sydenham Building, Madison Avenue, corner Fifty-eighth Street.

NEW YORK.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending July 2, 1904:

	Week end'g June 25.		Week end'g July 2.	
	CASES.	DEATHS.	CASES.	DEATHS.
Measles	464	31	369	23
Diphtheria and croup	455	35	386	50
Scarlet fever	181	21	130	9
Smallpox	1	..	1	1
Chickenpox	57	..	61	..
Tuberculosis	370	171	330	150
Typhoid fever	53	7	33	12
Cerebrospinal meningitis	..	..	..	39
Totals	1,581	265	1,310	284

Dr. Emily Dunning was appointed house surgeon to Gouverneur Hospital on July 1st. Dr. Dunning is the first woman physician to occupy such a position in this city.

The Glorious Fourth in New York.—With the experience of former years vividly in mind, at the hospitals special provision had been made for the care of the wounded. At the Harlem Hospital ninety-five persons were treated for July 4th injuries; thirty-five at the J. Hood Wright Hospital; thirty-two at Mount Sinai Hospital; fifteen at St. Luke's; twenty-four at St. Vincent's Hospital; six at the New York Hospital; eighteen at Lebanon Hospital; two at Lincoln; sixty-one at Bellevue, where a special staff attended to the Fourth of July patients; six at the Presbyterian Hospital; seven at the German Hospital, and ten at the Flower Hospital.

Manhattan State Hospital, West.—The 4,000 patients and nurses of this institution celebrated their annual programme of sports on July 4th. A dance followed to the music of the hospital orchestra made up entirely of women.

The Opticians' League of the State of New York.—Following are the names of the members of this league, who took active measures in the fight against the Optical Society's misleading bill, introduced at the last session of the legislature, and strenuously opposed by us and by the profession at large, in which successful opposition their aid proved invaluable:

E. B. Meyrowitz, president; Charles Lembke, vice-president; Theo. Mundorff, treasurer; Alexander Shaw, secretary. New York—Clairmont & Co., Gall & Lembke, J. W. & G. H. Hahn, A. Haustetter, Ferdinand Kreuter, B. M. Levoy, J. H. Maguire, McCoy & Stilwell, E. B. Meyrowitz, Theo. Mundorff, Victor N. Nunes Company, Charles L. Pilger, F. G. Schmidt, Alexander Shaw, W. F. Yanss Optical Company. Brooklyn—H. C. Badgeley, J. B. Hoecker, H. A. Knauber.

The Late Dr. Bryan G. Williams.—At a stated meeting of the medical staff of the Long Island State Hospital at Kings Park, held June 23, 1904, the following resolutions were adopted:

Resolved, That we learn with feelings of deepest sorrow of the death of our late associate, Dr. Bryan G. Williams, which occurred at sea May 13, 1904.

Resolved. That we desire to express to the family our sincere sympathy in this hour of sad bereavement.

Resolved. That a copy of these resolutions be sent to his relatives and for publication in the medical journals, and filed with the records of this hospital.

Dr. Williams was held in the highest esteem by his colleagues, both as a colaborer and a sincere friend. His sympathetic attention and genial good nature added much toward the betterment and to the happiness of the patients under his charge.

Beginning of the Annual Work of St. John's Guild.—The *Helen Juilliard*, the floating hospital of St. John's Guild, made its first trip down the bay on the morning of July 5th, bound for the Seaside Hospital, at New Dorp, Staten Island. It carried a boatload of sick babies. Starting from the foot of East Thirty-fourth Street at 7.30 o'clock, the *Helen Juilliard* next called at the foot of North Second Street, Brooklyn, at 8 o'clock. By this time the boat was pretty well filled. The last stop was made at the foot of Hamilton Avenue, and shortly after 9 o'clock the boat steamed slowly down the bay with something like 800 patients on board. So far this summer 377 sick children have been treated at the Seaside Hospital. The capacity of the institution is 350. The sum of $250 pays the expenses of a single trip, and already a sufficient amount has been subscribed to cover the cost of several trips. A subscription of 25 cents takes a baby out for a day, 50 cents takes the baby and its mother, while $1 provides for a day's outing for a family. The Seaside Hospital provides all attendance for a baby and its mother for one week for $5. Contagious diseases are not admitted.

PHILADELPHIA.

Philadelphia Health Report.—*The Report on Contagious Diseases, compared with that of the previous week, is as follows:*

	Week end'g June 25.		Week end'g July 2.	
	CASES.	DEATHS.	CASES.	DEATHS.
Smallpox	7	1	2	1
Diphtheria	74	8	43	11
Scarlet fever	62	1	40	1
Typhoid fever	70	7	52	11
Consumption	..	49	..	67
Cerebrospinal fever	..	..	..	..
Totals	213	66	137	91

An Abortionist Sentenced.—Dr. Albert A. Appel was recently sentenced to two years' imprisonment, after pleading guilty to a charge of having performed a criminal operation on a woman.

The Philadelphia Office of this journal, in the Professional Building, 1831 Chestnut Street, is now under the management of Dr. John M. Swan, who represents the editorial department of the *Journal* in Philadelphia.

State Board of Medical Examiners.—The Pennsylvania State Board of Medical Examiners held examinations during the week ending July 2nd for candidates who wished to practise medicine in Pennsylvania.

Explosion of Ammonia.—A new cause of danger to life has just developed in the explosion of 150 pounds of ammonia in an ice machine in the basement of the Bourse, by which three men were injured. In addition to the likelihood of injury from flying pieces of metal, the escaping ammonia fumes are injurious to the eyes and to the respiratory mucous membranes.

Arrested for Selling Adulterated Milk.—A number of milk dealers have been arrested on warrants charging them with (1) preserving milk with formaldehyde; (2) selling milk under standard and artificially colored; and (3) selling milk below standard. The warrants were sworn out by the State Dairy and Food Commissioner. There seems to be a chance here of protecting the poorer people of the community against one form of avarice. At the same time warrants have been issued for the arrest of a number of butchers for selling doctored meat. The offenders are usually the proprietors of small shops who have a local trade among the people of small means.

An Illegal Practitioner Fined.—Thomas E. Eldridge was fined $200.00 on June 28th for illegally practising medicine in Philadelphia. Eldridge claims to be a doctor of therapeutics, having a diploma from the Eastern College of Therapeutics and Psychologic Medicine. He has conducted an electrotherapeutic institution in this city for the past six or seven years. He recently treated a woman suffering from carcinoma with a combination of x rays and drugs. After two weeks of treatment the patient died, so that, through the coroner, the attention of the State Board of Medical Examiners was called to the establishment. The latter body instituted the legal proceedings.

St. Joseph's Hospital Training School, Philadelphia.—The graduating class of nurses of St. Joseph's Hospital, Seventeenth Street and Girard Avenue, who received their diplomas in the lecture hall of the hospital recently, are: Miss E. Fleming and Miss M. Butsch, of St. Marys, Pa.; Miss N. Maloney, of Waverly, Pa.; Miss E. Brady, of Philadelphia; Miss Fiun, of South Bethlehem, Pa.; Miss N. Sweeney, of Philadelphia; Miss E. Harmon, of Wilkes-Barre, and Miss F. Kelley, of Ashland, Pa.

Deaths from Neglect to Provide Fire Escapes.—On the afternoon of June 27th a four story building on Arch Street took fire from an explosion of fireworks on the first floor, which was occupied by a firm dealing in firecrackers and other explosives. The third floor was occupied by a French hat and bonnet frame company, in which two men and a young woman were employed. Because there were no fire escapes on the building these three people were killed before they could escape. There is a law in Pennsylvania which provides for the erection of fire escapes on buildings of this kind, but, as in this instance, it is sometimes ignored, with fatal results. As in other catastrophes of a similar character, arrests have followed and there is a parade of the legal obligations on the part of those owning buildings in which dangerous articles of merchandise are manufactured or exposed for sale and on the part of those engaged in selling explosives. A later report states that the explosion was caused by a customer who was smoking in the sales rooms of the firecracker company.

Is It a Crime to Buy Ice on Sunday?—In sharp contrast to the proceedings just cited for the benefit of the poorer portion of the community is the action of the Sabbath Association, which has caused the arrest of independent ice dealers for serving the poor with ice on Sunday. The arrests were made on June 26th, when the official thermometer registered 95° F., and the street thermometers stood at 97°. The assertion is made by the prosecution that they wish to keep the ice wagons off the streets on Sunday; but that the Sabbath Association has no objection to people buying ice from the stores that sell it in small pieces. One rumor has it that the Ice Wagon Drivers' Union is back of the movement, and another rumor lays the blame on the ice trust. A Sabbath association ought not to affiliate itself with either drivers' unions or ice trusts. In the meantime the poor family that has no refrigerator large enough to keep a supply of ice from Saturday night until Monday morning will be fortunate if the supply of that hygienic and therapeutic necessity does not fail it.

GENERAL

The Children's Hospital Training School, of Boston, graduated the following nurses on June 23rd: Margaret Farquhar, of Methuen; Emily A. Sprague, of Manchester, N. H.; J. W. Adams, of Plymouth; Mary P. Blackmer, of Worcester; Phyllis Dacey, of Roxbury; Amy C. Moore, of Prince Edward Island.

Statement of Mortality in Chicago, Ill., for the Week Ending July 2, 1904, compared with the preceding week and with the corresponding week of 1903. Death rates computed on United States Census Bureau's estimated mid-year populations of 1,932,315 for 1904 and of 1,873,880 for 1903:

	July 2. 1904.	June 25, 1904.	July 4, 1903.
Total deaths, all causes	398	393	562
Annual death rate per 1,000	10.75	10.62	15.70
By sexes—			
Males	243	228	330
Females	155	165	233
By ages—			
Under 1 year	67	73	111
Between 1 and 5 years	37	25	61
Over 60 years	73	71	98
Important causes of death—			
Acute intestinal diseases	28	20	48
Apoplexy	5	13	8
Bright's disease	27	34	31
Bronchitis	6	5	7
Consumption	46	64	60
Cancer	22	22	28
Convulsions	7	9	11
Diphtheria	7	5	15
Heart diseases	36	37	84
Influenza	2	..	..
Measles	0	0	11
Nervous diseases	23	17	37
Pneumonia	34	30	72
Scarlet fever	2	2	9
Suicide	9	9	12
Smallpox	..	..	..
Sunstroke	2	..	5
Typhoid fever	4	6	11
Violence (other than suicide)	41	31	27
Whooping cough	2	4	2
All other causes	115	85	121

Dr. Elias P. Lyon, of the department of medicine at the University of Chicago, has been elected to the chair of physiology in Washington University, St. Louis. He will be chief professor of physiology at a salary of $5,000 a year.

The Perkins Institute for the Blind, of Boston, will soon celebrate the birthday of its founder, Dr. Samuel G. Home, by a bazaar in aid of the work department for blind women. Those willing to contribute money or goods may address Miss Jennie M. Colby, Hotel Carlton, Boston.

Dr. Maitland Ramsay, of the Royal Ophthalmic Infirmary of Glasgow, Scotland, is in Buffalo as the guest of Dr. Lucien Howe, at the latter's residence, Delaware Avenue and Huron Street. Dr. Ramsay came to this country at the invitation of the American Medical Association to deliver an address before that body at its meeting two weeks ago. After a few days' visit in that city Dr. Ramsay will go to St. Louis, whence he returns to Glasgow.

St. Christina's Hospital, on Ballston Avenue, Saratoga, has been opened for the summer. About 50 children now are receiving treatment there and more will arrive during the next month or two. The number of patients ranges from 50 to 130, the latter being the hospital's capacity. St. Christina Hospital, as is generally known, is a branch of the Albany Child's Hospital. It annually is opened early in June, and the little sick waifs are brought to Saratoga to receive medical treatment and whatever benefit may be gained from the bracing air of this village. The inmates are not confined to residents of Albany, however, for patients are taken from Saratoga and any other place. The only requirement is that the attending physicians believe the case capable of being improved. The age limit is fifteen years. The physicians in charge are: Dr. J. B. Ledlie, Dr. G. H. Fish, and Dr. D. C. Moriarta. The hospital will remain open until late in September.

Madison County, Mo., Medical Society.—Dr. J. M. Tully, of Granite City, has been elected president of the Madison County Medical Association; Dr. J. H. Hinchee, of Moro, vice-president; Dr. Homer Davis, of Alton, treasurer, and Dr. F. C. Joesting, of Alton, secretary.

A Request from Dr. William P. Spratling.—Dr. Spratling, of Sonyea, N. Y., requests us to state that he is especially anxious to get accurate data bearing on the influence of the dentition periods in the production of convulsions—especially epilepsy—and that he would be grateful to any physician kind enough to send such data to him. Facts in connection with the influence of the first dentition period from the sixth month to the end of the first year or thereabouts, are especially desired.

Smallpox and Vaccination in Chicago.—According to the *Bulletin of the Chicago Health Department*, five cases of smallpox were discovered and removed to the Isolation Hospital during the week ending June 18th, and, as usual, none of the subjects had ever been vaccinated. All were persons whose occupations made them especially likely to spread the contagion—three chambermaids in a prominent hotel, a colored lodging house keeper, and a bootblack in a barber shop; the hotel chambermaids contracted the disease from a case imported from Michigan.

Boston Floating Hospital.—The first trip of the season occurred on Wednesday, July 6th, and the managers are very desirous that the work should be continued into September; and if the friends of this charity will contribute early in the season, plans for the entire summer could be made now. Contributions may be sent to Rufus B. Tobey or Charles G. Farwell, 505 John Hancock Building, 178 Devonshire Street, or paid to John R. Anderson, assistant manager, and checks should be made payable to Charles G. Farwell, treasurer. All gifts will be duly acknowledged by letter and in the columns of the *Transcript*. Over $10,000 has already been subscribed towards the building of a new boat.

A "Doctor" Convicted.—Dr. H. E. McNutt returned to Aberdeen, S. D., June 20th, from Deadwood, where he was called as a witness in behalf of the State board of medical examiners in the case of "Dr." Herman A. Dreschler, who had been practising medicine for some time in this State without the license required by law, The case was considered one of more than usual importance, as Dreschler was practising in the State before the passage of the new medical law and openly defied the power of the new law to stop him. The sole charge against him was prefixing the letters "Dr." before his name in a medical sense, as it was shown he had done by the prescription blanks which he used. The case was ably conducted by Colonel Parker, of Black Hills fame. The charge to the jury by Judge Rice was positive and the conviction by the jury required but a few minutes' deliberation. Members of the medical fraternity are much pleased with the result of the suit, as the new medical law is again shown to be all that was claimed for it when it was passed by the legislature.

Hutchinson Memorial Hospital, New Orleans.—The Tulane educational fund has purchased for $125,000 a plot of ground between Canal, Customhouse, Claiborne, and Robertson Streets, upon which this hospital will be built. The late A. C. Hutchinson left about $800,000 for the purpose.

St. Leo Hospital, Greensboro, N. C.—The corner stone of this hospital was laid on June 16th under the auspices of the Guilford County Medical Society. It will be conducted by the Sisters of Charity. Bishop Haid, of the Roman Catholic Church, presided at the ceremonies.

A Site Chosen for the Annapolis Hospital.—Secretary Moody has decided to locate the Naval Academy Hospital, at Annapolis, on the government farm southeast of the county road, fronting on the Severn River. The site selected is between Cemetery Point and Camp Wainwright, and involves no disturbance whatever with the existing condition of the old Naval Cemetery.

Little Falls Hospital, Jamestown, N. Y.—At a meeting of the executive board of the Little Falls Hospital Association, held June 21st, the contract for erecting the superstructure of the new city hospital was awarded for $11,236. The price of the finishing will be $5,757, and it is agreed to perform this part of the work at those figures at any time within two years. It is expected to have the superstructure completed by December 1st.

The Medical Society of the County of Clinton, Pa.—The ninety-seventh semiannual meeting of this society will be held in the rooms of the Commodore Macdonough Club, Oak Street, Pittsburgh, Pa., on Tuesday, July 12th, at 2 p. m. Programme: Report of three cases of Congenital Malformation, by Dr. O'Meara; Dysentery, by Dr. Dare; Two Fatal Cases: Hypertrophic Cirrhosis of the Liver, Talma's Operation; Cancer of the Head of the Pancreas, Cholecystenterostomy, by Dr. Irving S. Haynes, professor of Practical Anatomy, Cornell University, New York. A paper by Dr. Madden, title to be announced. Lunch at the Arcade at 12.30. C. D. Silver, M. D., president. D. S. Kellogg, M. D., secretary.

Mortality of Michigan During May, 1904.—The total number of deaths registered in Michigan for the month of May was 2,937, corresponding to a death rate of 13.9 per 1,000 population. There were 275 fewer deaths than for the preceding month, and the rate was nearly 2 per 1,000 lower. Important causes of death were as follows: pulmonary tuberculosis, 208; other forms of tuberculosis, 30; typhoid fever, 60; diphtheria, 42; scarlet fever, 20; measles, 46; whooping cough, 10; pneumonia, 271; cancer, 114; accidents and violence, 186. Typhoid fever diminished in prevalence, while considerable increase may be noted in deaths from measles. By ages there were 521 deaths of infants under one year; 195 deaths of children aged one to four years, and 935 deaths of elderly persons over 65 years of age. There were three deaths from smallpox during the month, one in Beaver township, Bay county, one in the city of Three Rivers, St. Joseph county, and one in the city of Saginaw.

The Harvey Medical College, of Chicago, in which instruction is furnished at night, graduated the following on June 25th: Carl O. Anderson, Paschal G. Caspian, Anna K. Meyer, Joseph H. Perry, P. D. Rowland, William A. Baker, Hugh Wisdom, Gustave H. Douglas, Susan I. Moody, Scott T. Petrie, Grant F. Rulifson, May H. Barker, Gustave F. Wedel, Roy W. McClintock, Victor Pacyna, George W. Reis, Marion S. Wallace.

Wisconsin State Medical Society.—Dr. C. W. Oviatt, of Oshkosh, was elected president of the Wisconsin State Medical Society on June 24th, the convention closing at noon. La Crosse will be the next meeting place of the society. The list of officers chosen at the meeting of the house of delegates yesterday morning was as follows: President, Dr. C. W. Oviatt, of Oshkosh; first vice-president, Dr. J. L. Bradfield, of La Crosse; second vice-president, Dr. G. E. Seaman, of Milwaukee; third vice-president, Dr. A. D. Rosenberry, of Wausau.

The Milk Question in Chicago.—During the week 135 more dairies, with 1,934 cows, were inspected by the dairy inspectors, and the milk from twenty-nine of these has been excluded from the Chicago market for feeding wet malt. Only two cows were found ailing—one from lumpy jaw (actinomycosis)—and both were promptly segregated on the advice of the inspectors. As a result of these inspections forty-five city milk dealers have been notified to stop the receipt and sale of milk from dairies where wet malt, the refuse of distilleries, breweries, vinegar factories, etc., were found to be fed. This action is taken under Section 953 of the municipal code of the city of Chicago, which makes it a misdemeanor for any one to sell or offer for sale the milk of cows fed upon such material. The penalty is a fine of not less than $5 nor more than $200. Section 957 of the code also authorizes the commissioner of health to confiscate and destroy all such milk wherever found within the city limits.

Public Health and Marine Hospital Service: Examination for Admission.—We have received the following circular from the Treasury Department:

Bureau of Public Health and Marine Hospital Service,
Washington, D. C., June 29, 1904.

A board of officers will be convened to meet at the Bureau of Public Health and Marine Hospital Service, 3 B Street, S. E., Washington, D. C., Monday, October 3, 1904, at 10 o'clock a. m., for the purpose of examining candidates for admission to the grade of assistant surgeon in the Public Health and Marine Hospital Service.

Candidates must be between twenty-two and thirty years of age, graduates of a reputable medical college, and must furnish testimonials from responsible persons as to their professional and moral character.

The following is the usual order of the examinations: 1, Physical. 2, Oral. 3, Written. 4, Clinical.

In addition to the physical examination, candidates are required to certify that they believe themselves free from any ailment which would disqualify them for service in any climate.

The examinations are chiefly in writing, and begin with a short autobiography of the candidate. The remainder of the written exercise consists in examination on the various branches of medicine, surgery, and hygiene.

The oral examination includes subjects of preliminary education, history, literature, and natural sciences.

The clinical examination is conducted at a hospital, and, when practicable, candidates are required to perform surgical operations on a cadaver.

Successful candidates will be numbered according to their attainments on examination, and will be commissioned in the same order as vacancies occur.

Upon appointment, the young officers are, as a rule, first assigned to duty at one of the large hospitals, as at Boston, New York, New Orleans, Chicago, or San Francisco.

After five years' service, assistant surgeons are entitled to examination for promotion to the grade of passed assistant surgeon.

Promotion to the grade of surgeon is made according to seniority, and after due examination as vacancies occur in that grade.

Assistant surgeons receive sixteen hundred dollars; passed assistant surgeons, two thousand dollars, and surgeons, twenty-five hundred dollars a year. When quarters are not provided, commutation at the rate of thirty, forty, and fifty dollars a month, according to grade, is allowed.

All grades above that of assistant surgeon receive longevity pay, ten per centum in addition to the regular salary for every five years' service, up to forty per centum after twenty years' service.

The tenure of office is permanent. Officers traveling under orders are allowed actual expenses.

For further information, or for invitation to appear before the board of examiners, address,

Surgeon General,
Public Health and Marine Hospital Service,
Washington, D. C.

New York State Hospital for Incipient Tuberculosis, Ray Brook, Essex County, N. Y.—The following notice has been sent to superintendents of the poor and overseers of the poor throughout New York State:

Dear Sir: The New York State Hospital for the treatment of incipient pulmonary tuberculosis, located at Ray Brook, Essex County, N. Y., will receive patients July 1st, and a camp of tents for 50 patients will be immediately established. The institution can be reached by the New York Central and Hudson River Railroad and Delaware and Hudson Railroad. If possible, the patient should bring light and thick warm clothing. The names and addresses of the examining physicians appointed in New York city are: Dr. H. M. Biggs, and Dr. Edward Le Fèvre. Other examiners appointed are: Dr. S. B. Ward, of Albany; Dr. Elsner, of Syracuse; and Dr. H. R. Hopkins, of Buffalo. If you desire to send a patient suffering from incipient pulmonary tuberculosis to the institution, please consult chapter 416—laws of 1904—relating to method of applying for admission, cost of maintenance, etc. The following instructions for examiners will prove useful:

The difficulty in preparing an exact or comprehensive definition of incipient tuberculosis is appreciated. The term incipient is used in a clinical sense, and is meant to designate the favorable early case. Many early cases are obviously unpromising. While the success of sanitorium treatment depends largely upon an early diagnosis, the importance of prognosis must be considered in making an intelligent selection of patients. The recognition of a favorable or an unfavorable case depends upon a careful study of many factors separately and combined. The salient points to be observed in reaching a conclusion are briefly presented:

Heredity.—Tuberculosis in any form in one or both parents. Whether before or after birth of patient. Tuberculosis in one or more brothers or sisters. Duration and character of the disease as indicative of tendency and resistance.

History.—Duration of illness and subjective symptoms, particularly cough, fever, hæmorrhage, disturbance of nutrition, and loss of weight.

Previous health and preceding disease, as pneumonia, pleurisy, anæmia, chlorosis, symptoms of suspected malarial chills, etc. Complicating diseases, as syphilis, cardiac or renal disease, laryngeal tuberculosis.

Habits.—Special employment outdoor or indoor. Environment with reference to expected improvement by change. Effect of rest in ameliorating symptoms.

Age: most favorable between 15 and 45. Menses if absent more than two months. Weight in relation to height and loss of weight. Race and color.

Presence of Bacillus Tuberculosis.—While necessary for an absolute diagnosis, it is often needless to wait for their appearance if the signs and symptoms offer satisfactory proof of the existence of tuberculosis.

The fact is emphasized that the disease can frequently be recognized weeks or months before the bacilli are detected. If in rare instances a mistake in diagnosis should occur, benefit instead of dangerous delay is to be preferred.

Tuberculin Test.—The cases are rare in which a diagnosis cannot be made without employing this test. It is only advisable or necessary in exceptional instances provided the examiner is qualified by training and experience. When used scientifically its diagnostic value is recognized, but errors are possbile, particularly if improper methods and imperfect products are tried.

Location, Extent, and Character of Lesion.—Most favorable when limited to a part of the lung, especially the apex or part of one lobe.

Localized and Not Diffuse.—Stage of infiltration with slight consolidation and slight or no destructive changes. Cavity formation and large area of consolidation due to pneumonia in any form or pleurisy with fluid or adhesions much less favorable.

Physical Signs.—Only those found in the stage of infiltration mentioned. Examination includes spaces above the clavicles. Relative or slight dullness often characterized alone by elevation of pitch.

Increased Vocal Fremitus.—Diminished breath sounds or cog wheel respiration, prolonged expiratory sound with elevation of pitch.

Increased vocal resonance and elevation of pitch are often best obtained by transmission of whisper. Fine bronchial râles with localized bronchitis and clicks and râles when destructive process has begun. These may appear or disappear with deep breathing or cough. The search for more than one focus of disease is extremely important. Any classification by stages based upon anatomical lesions will be deceptive unless the general condition of the patient and the symptoms are considered.

Symptoms in Relation to Prognosis.—Although difficult, the clinician will endeavor to differentiate between tuberculosis and phthisis. The disease can be detected before cachexia is apparent. Tuberculosis with and without mixed infection are very different conditions. The relation between the extent of lesion and the general disturbance is of paramount importance. The evidence of toxæmia may be out of all proportion to the extent of invasion of the lung. Determine if the disease is in the stage of arrest, quiescent, acute, chronic, or progressive. As a rule, patients are not in a favorable condition for transportation if the following symptoms are present: Persistent afternoon temperature of more than 100°. Rapid pulse and respiration increased upon slight exertion. Loss of appetite and disordered nutrition, with loss of weight, diarrhœa, chills, and sweats. Repeated or large hæmorrhages. When evidence of active disease is manifest and symptoms are forbidding, delay and a period of rest may change the aspect and suitability of the case for distant removal. Finally when the diagnosis of tuberculosis is difficult, the case is apt to be promising, and when the diagnosis is easy it is apt to be unpromising. After a place is provided for poor patients suffering from the incipient form of the disease, the prompt recognition serves some purpose and becomes imperative. The purpose of the State in creating a State hospital for incipient tuberculosis is to promote an early diagnosis, offer a limited opportunity for the treatment of curable cases, and encourage prevention by removing the patient from his surroundings before he becomes a source of danger or begets progeny. The attempt to care for a few of the vast number of consumptives in this State is to an extent experimental. Every hopeless case will deprive a promising one of his only chance. The success of the institution and the project of State care must be established by statistical proof of the highest possible percentage of recoveries.

Later cards and charts to be used in recording the results of examinations, and any other information, will be furnished on application to John H. Pryor, M. D., Superintendent.

Pith of Current Literature.

BERLINER KLINISCHE WOCHENSCHRIFT.

May 30, 1904.

1. A New Hæmostatic Derived from Autolysis of the Spleen (Stagnin), By T. LANDAU.
2. Surgery of the Oral Cavity, By BRANDT.
3. Case of Fatal Hæmorrhage from a Miliary Aneurysm of the Gastric Mucosa, By H. HIRSCHFELD.
4. The Process of Producing Fat (*To be concluded*), By G. ROSENFELD.
5. A Case of Sinus Pericranii, By M. LITTHAUER.
6. Clinical Experiences with Bioson, By M. HEIM.

1. **Stagnin, a New Hæmostatic.**—Landau describes stagnin as a preparation derived from the antiseptic autolysis of the spleen. It was found to be a useful hæmostatic, especially in hæmorrhages due to gynæcological disease. By injections of splenic extract, it was found that there was an increase in the coagulability of the blood. It influences capillary hæmorrhage mainly and seems to exert no effect upon the blood pressure. The method of preparation is described, and the author assumes that it will be useful in internal bleedings. He reports fifty-nine cases in which its influence was mostly beneficial; the remedy being injected into the gluteal muscles. These cases included cases of myomata, metritis and hyperplasia of the uterus, in two of which there was no result; one of them was complicated by heart disease and in the other a cervical polyp was found later. Other cases were those of diseased endometrium, secondary hæmorrhage in consequence of diseased appendages, impending and incomplete abortion, climacteric and virginal hæmorrhages without definite lesions; and an especially good result was achieved in one case of hæmophilia.

3. **Fatal Gastric Hæmorrhage.**—Hirschfeld reviews the literature of the subject and reports a case of a man thirty-eight years of age, in whose family there was a history of hæmophilia. The man suffered from a chronic alcoholic gastritis, and had experienced several hæmorrhages from the stomach. The autopsy disclosed a small aneurysm in the mucous membrane of the stomach, which had ruptured and which was surrounded by varicose veins. The author mentions the impossibility of making a diagnosis of the condition during life.

5. **Case of Pericranial Sinus.**—Litthauer describes these tumors as situated beneath the periosteum of the skull, filled with venous blood, and communicating with the intracranial sinuses. Ten cases are recorded in literature, to which the author contributes the eleventh. The patient was a man who, fourteen days after a blow on the head, developed a mass over the right parietal bone, which disappeared when the upright position was assumed and reappeared when the patient bent forward. In this case, the tumor was in an unusual site. The anatomical points in the case are thoroughly discussed.

6. **Bioson.**—Heim describes this preparation as a combination of proteid, iron and lecithin. It is hæmatopoietic and nerve strengthening. It is a non-irritating, albuminous product which causes no gastrointestinal disturbance even after prolonged administration. It is well borne in acute febrile conditions and has an influence as an appetizer. It causes an increase in weight and in the hæmoglobin of the blood. In anæmia and chlorosis it also brings about an increase in the number of red cells. It has a beneficial influence in cases of neurasthenia and nervous exhaustion. Its price is low, placing it within reach of almost any patient.

ZENTRALBLATT FUER GYNAEKOLOGIE.

May 14, 1904.

1. Forced and Delayed Delivery in Eclampsia, By KROEMER.
2. Physiological Behavior of the Lower Uterine Segment During Labor, By F. D'ERCHIA.
3. The Cervix and the Lower Uterine Segment, By O. SCHAEFFER.
4. New Dilator for Uterine Dilatation, By G. WALCHER.
5. A New Gynæcological Examining Table, By FLEURENT.

1. **Delivery in Eclampsia.**—Kroemer believes that not delivering forcibly in cases of eclampsia is of decided practical benefit. He reports two cases, one of which was terminated by perforation and the other by forceps at the pelvic outlet. The author says that the emptying of the uterus is but a portion of the treatment of eclampsia. Narcotics are not used by him, but he uses all the avenues of excretion—the skin, the kidneys, and the gastrointestinal tract—to eliminate the toxines from the body. Infusions and transfusions are also recommended.

2. **Lower Uterine Segment.**—d'Erchia has conducted a number of experiments on mammals to determine the rôle of the lower uterine segment in relation to labor pains. During birth, he believes, only the muscular part of the uterus acts, the lower segment remaining passive, a mode of physiological action which he thinks equally applicable to the human species.

ZENTRALBLATT FUER CHIRURGIE.

May 21, 1904.

1. Intrathoracic Operations Upon the Œsophagus, By G. KELLING.
2. New Operating Table, By L. MOSZKOWICZ.

1. **Intrathoracic Operations Upon the Œsophagus.**—Kelling has made some investigations as to when and how these procedures can be carried out. He finds that it is important to have an increase of pressure, rather than negative pressure, so that the lymph shall continue in its channels instead of being absorbed. Kelling insists upon the necessity and desirability of asepsis, even though operating in the mediastinum. In the case of for-

eign bodies, the author thinks it wiser not to perform an intrathoracic œsophagotomy; but when the œsophagus has been injured by caustics, gastrostomy and permanent dilatation must be practised, to avoid stricture.

PRESSE MEDICALE.

May 4, 1904.

1. Arterial Atheroma and Arteriosclerosis, By JOSUÉ.
2. Treatment of Acute Otitis Media, By LERMOYEZ, LUBET-BARBON, and MOURE.

1. **Arterial Atheroma and Arteriosclerosis.**—Josué points out that the first is really a degenerative process and the second an inflammatory one. Martin thinks that atheroma is due to arteriosclerosis of the vasa vasorum, but Josué thinks, notwithstanding their frequent coexistence, that there is no definite connection between the two conditions. He has produced atheroma in the rabbit by repeated intravenous injections of adrenalin, which increases arterial tension, but in these experiments no trace of arteriosclerosis was produced. Is it not probable that atheroma is due to an autointoxication from too great activity of the suprarenal capsules? Several necropsies have confirmed this theory, the capsules showing marked pathological changes.

2. **Acute Otitis Media.**—Lermoyez, Lubet-Barbon, and Moure point out the danger of improper treatment, leading to mastoiditis, purulent sinuses, caries, destruction of the tympanum and ossicles, etc., and the benign course of the disease under proper care. Otitis media is usually rhinogenous. Drainage is the keynote of treatment. There are always mastoiditis, rhinitis, pharyngitis, and a general physical lowering, all of which conditions demand attention. If perforation of the membrane is spontaneous, and sufficient, proper dressing is all that is required; if not sufficient, the perforation should be enlarged. In mild cases, perforation is not necessary, and warm, aseptic applications externally, with application to the inside of the ear of a warm solution of carbolic acid and glycerin will suffice. Deafness, great pain, and high fever demand paracentesis, which should be performed after careful sterilization first with carbolic acid and glycerine and later with sublimate solution. Local anæsthesia should always be tried, a piece of cotton, saturated with equal parts of carbolic acid crystals, menthol, and cocaine hydrochloride, being laid gently on the membrane. In children and nervous subjects, general anæsthesia will be necessary. Drainage may be carried out by means of a strip of sterile cotton. Subsequently dressing should be done daily by the surgeon himself, who must examine the conditions present with great care. Usually paracentesis is followed by immediate relief; if not, the mastoid operation is to be preferred to its repetition. Adenoid vegetations must be removed, enlarged tonsils excised and any catarrhal condition treated. The general health must be improved. Otitis media occurring either in infants or the aged demands particular attention and is liable to be overlooked. When the mastoid operation is indicated, as the authors point out, no surgeon has ever blamed himself for operating too soon or too extensively.

GAZZETTA DEGLI OSPEDALI E DELLE CLINICHE.

April 3, 1904.

1. Kernig's Sign in Sciatica, By AUGUSTO PLESSI.
2. Brief Notes on the Fever, Jaundice, and Hæmaturia Due to Quinine Poisoning, By A. BRANCATI.
3. Experimental Researches on the Elimination of Ammonia in the Urine, By CESARE ORTALI.
4. The Influence of the Calcium Treatment Upon the Course of Experimental Tuberculosis, By ALBERTO MICHELAZZI.

1. **Kernig's Sign in Sciatica.**—Plessi reports two cases of sciatica in which Kernig's sign (which was originally described in meningitis), occurred with great distinctness. Kernig's sign, as is well known, is the contraction or flexure of the knee and hip joint, which occurs when the patients assume the sitting posture. The patient is unable to extend the lower limbs completely when sitting, and the contraction of the flexor muscles amounts to 135° in slight forms, and 90° in marked cases. In 1898, Netter, of Paris, declared this sign to be pathognomonic of meningitis, and asserted that it occurred in 90 per cent. of all the cases of this disease. This sign has been since then found in typhoid fever, by Cipollina and Maragliano, and this without any meningeal complications. Salomni found it in a case of rigidity of the spine, and Sailer in a case of extensive hæmorrhage of the right hemisphere. In 1902, Magri for the first time found it in a case of sciatica, the patient afterward dying of typhoid fever, without a trace of meningitis. Since then a few cases of sciatica have been reported in which Kernig's sign occurred. Plessi in the present cases found the sign in its characteristic form, and observed that it disappeared gradually with the symptoms. He considers Kernig's sign as a muscular reflex induced by the irritation of the nerve filaments.

2. **Jaundice, Hæmaturia, and Fever, After the Administration of Quinine.**—Brancati reports clinical experiments made by Professor Tomaselli, of Catania, which showed that in certain predisposed persons the administration of quinine in moderate doses was followed by jaundice, hæmaturia, and fever, no matter in what manner the drug had been administered. When the quinine is given by the subcutaneous method the toxic symptoms occur more promptly than when the alkaloid is given by mouth or by rectum; this is directly opposed to the statement recently made in an article by Festa (*Gazzetta degli ospedali e delle cliniche*, February 7, 1904; abstracted April 30th, p. 850) to the effect that no toxic signs developed if the drug was given by the hypodermic method. Tomaselli reported, in 1897, a case in which the subcutaneous injection of 50 centigrammes (seven grains and a half) of quinine bichloride sufficed to produce the toxic signs referred to.

3. **Elimination of Ammonia in the Urine.**—Ortali experimented on himself and found that the amount of ammonia eliminated in the urine under normal diet was 0.76 gramme in twenty-four hours. After the ingestion of glucose (50 grammes daily) and sodium carbonate (2.5 to 3 grammes daily) the ammonia elimination diminished to 0.63 gramme,

and after drinking Vichy water (400 grammes daily) it was reduced to 0.76 gramme. It is a well known fact that the ingestion of glucose saves the decomposition and oxidation of the proteids, and that the urine in such cases contains less urea and uric acid. It has also been found that the ingestion of ammonia salts increases the amount of glycogen formed in the body, and retards the transformation of glycogen stored up.

The administration of alkalies has been shown to diminish the amount of ammonia eliminated in the urine, and the cause of this is probably that the alkalies neutralize the acids of the organism, and that the ammonia which remains goes to form urea. Sodium carbonate when given internally, therefore, increases the amount of urea and thus acts as a diuretic.

The reciprocal influence of alkalies and glucose, when taken together, depends upon the fact that alkalies facilitate the oxidation of carbohydrates both in the blood and in the tissues, retard the transformation of glycogen, and according to Tomburrini, the puncture of the fourth ventricle fails to produce glycosuria when preceded by an injection of sodium bicarbonate.

The diminution of the ammonia eliminated in the urine after the ingestion of glucose and alkalies may be explained in the light of these facts. Glucose is decomposed into a series of acid bodies in the system, and an excess of acids in the organism induces an increase of ammonia. Hence glucose when taken internally increases ammonia elimination. But when alkalies are introduced, they neutralize the acids resulting from the decomposition of glucose, and the alkalies in this case being in excess, the amount of ammonia was diminished instead of remaining normal.

4. **Calcareous Treatment in Tuberculosis.**—Michelazzi induced experimental tuberculosis in animals and treated them with large doses of calcium salts. He found that this treatment had such good results that he is now employing the same remedies in man, especially in incipient cases. In his experiments he confirms the ancient teaching that salts of calcium are beneficial in tuberculosis. He completely confirms the recently published clinical results of Rudolph, who administered calcium salts by mouth to five consumptives, with almost complete cure in each of these cases. The salt used in the present author's experiments was calcium phosphate, which was added in large doses to the food of tuberculous rabbits and guinea pigs.

ROUSSKY VRATCH.

April 24, 1904.

1. The Morphology and Biology of the Bacillus of Plague and of the Pseudotubercle Bacillus in Rodents (*To be continued*), By S. I. Zlatogoroff.
2. The Value of Blood Examinations in the Diagnosis and Treatment of Disease (*Concluded*), By K. I. Gorovitsky.
3. Changes in the Red Blood Cells as an Early Sign of Lead Poisoning, By A. I. Lourie.
4. Is Oxygen Necessary for the Activity of Hydrolytic Ferments? By N. A. Sakharoff.
5. Sanitary Requirements for Mortuary Chapels, By A. A. Lipski.
6. The Sanitary Relations of Railroad Transportation of Emigrants and Laborers, By V. I. Zemblinoff.

3. **Changes in the Red Blood Cells as an Early Sign of Blood Poisoning.**—Lourie describes a case of lead poisoning in which important diagnostic features were found in the red blood cells, and concludes that the examination of the blood not only can serve to make an early diagnosis of cases of lead poisoning, but also will prove of value in medicolegal investigations. It is a well known fact that the clinical picture of lead poisoning is often indefinite in the early stages, and for this reason the changes in the red blood cells which have been recently described almost simultaneously by Behrend and Hamel in cases of lead poisoning, will serve as useful guides in early diagnosis. The patient whose case was reported, was a Cossack, aged nineteen years, who had been suffering for nine days with alternating diarrhœa and constipation, but had no lead line on the gums. He had been working in a lead factory for eight months. On examining his blood, stained preparations which had been dyed with methylene blue and eosin, showed a large number of red cells containing basophile granules staining blue—a characteristic sign of the early stage of lead poisoning. Of twenty-four laborers who constantly worked with lead, only four did not show these granules in the blood according to Hamel. The fact that lead poisoning may produce the appearance of basophile granules in the red blood cells is attested by the experimental results obtained in animals by Sabrázes, Strauss, and Moritz.

4. **The Need of Oxygen in the Activity of Ferments.**—Sakharoff contends that oxygen is necessary in the activity of hydrolytic ferments, and that oxidation is intimately connected with hydrolysis, and is even the cause of the latter. The following experiment is described in proof: Into two each of test tubes, holding about 30 c. c. each, are placed 15 c. c. of a freshly prepared diluted starch paste. The contents of the first test tubes are boiled for two or three minutes, and upon removing it from the flame, the starch solution is covered by an inch and a half of boiled oil. After cooling the mixture to room temperature, a small amount of diastase solution deprived of oxygen is allowed to mix with the starch, after having been passed through the oil by means of a fine pipette. The same amount of the same ferment is poured into the other test tube containing starch solution at room temperature. If the two test tubes are heated at 50° C., it will be noted that in the test tube which is not protected by oil, the starch begins to become transparent, while in that protected with oil it remains opaque. On examination, the first tube will be found to contain sugar, while in the second, sugar is absent. In order to deprive the solution of diastase of oxygen, the author adds to it a small amount of soda and of pyrogallol, and allows this mixture to stand under a layer of sterilized oil for several days. No air should be allowed to enter the solution of starch, and therefore the pipette must be drawn out to a point as fine as that of a hypodermic needle.

BOSTON MEDICAL AND SURGICAL JOURNAL.

June 30, 1904.

1. Anomalies of Thyreoid Secretion, By FREDERICK C. SHATTUCK.
2. The Significance of the Tuberculosis Crusade, and Its Future, By EDWARD O. OTIS.
3. The Physiology of the Ureter, By BYRON ROBINSON.
4. Conservative Surgery of the Uterine Appendages with Especial Reference to the Ovaries, By EDWARD L. TWOMBLY.

1. **Thyreoid Secretion.**—Shattuck sketches the evolution of our present knowledge of thyreoid function. Cretinism and myxœdema are certainly due to deficiency of thyreoid activity. Their treatment is therefore by the administration of preparations of the thyreoid gland. Graves's disease is still a mystery. However plausible may be the theory that this affection is due to excessive thyreoid secretion, proof of the fact is still lacking. The treatment of Graves's disease is not satisfactory. The author has had fairly good results with the neutral bromide of quinine. He sums up the situation thus: "Graves's disease for the present is to be treated by rest, diet, climate, attention to the bowels and neutral bromide of quinine. If these measures are not followed by distinct improvement operation is to be seriously considered in severe cases, especially in patients whose circumstances in life are unfavorable for the general management of their disease."

3. **The Physiology of the Ureter.**—Robinson's paper does not lend itself to brief condensation. It is based very largely on original work and should prove of special value to genitourinary surgeons.

4. **Surgery of the Ovaries.**—Twombly is in sympathy with those who advocate conservative methods in treating diseased ovaries. The chief point he makes in his paper is the following: An exploratory incision should be made in an ovary which has been the seat of constant pain, with exacerbations at the menstrual periods, even if it appears normal or slightly enlarged. This position is upheld by the following considerations: (1) It has not been proved to increase the danger. (2) It is a wise proceeding when the other ovary is cystic or contains a papillary growth. (3) It may prevent a secondary operation. (4) It should prevent removal of a normal ovary. (5) It may disclose a growth within or beginning cystic formation which can be easily excised. (6) It is a conservative operation, consuming but little more time. Of course, this advice applies only to cases in which the abdomen has already been opened for the treatment of definite conditions.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

July 2, 1904.

1. The Scourge of Nostrums and Irregular Practitioners. Chairman's Address Before the Section on Materia Medica, Pharmacy, and Therapeutics, By OLIVER T. OSBORNE.
2. Multiple Fractures of the Lower Jaw Complicated by Double Fracture of the Upper Jaw, By THOMAS L. GILMER.
3. Dental Education (*Concluded*). Discussion.
4. Dysentery. A Report of Several Cases in Which the *Bacillus Dysenteriæ* (Shiga) Was Found in Washington, D. C., By LOUISE TAYLER-JONES.
5. Prostatectomy. Report of 51 Cases Operated on from May 6, 1901, to February 26, 1904 (*Concluded*), By JOHN B. MURPHY.
6. Röntgen Ray Treatment of Leucæmia; Report of a Case with Apparent Improvement; Death; Autopsy, By LAWRENCE C. GROSH, and WILLARD J. STONE.
7. Ankylosis of the Jaws, By G. LENOX CURTIS.
8. A Case of Typhoid Fever with an Unusual Complication, By WILLIAM EDGAR DARNALL.
9. Mesenteric Embolism and Thrombosis; A Study of 214 Cases (*To be continued*), By JAMES MARSH JACKSON, CHARLES ALLEN PORTER, and WILLIAM CARTER QUINBY.

2. **Fracture of the Jaws.**—Gilmer reports in detail a complicated case of fracture of both jaws. Reduction was maintained by wiring the teeth and part of the lower jaw and by specially constructed splints. Such cases can never be treated by routine methods. The original paper should be consulted for details.

4. **Dysentery.**—Tayler-Jones reports six cases. During the summer of 1903, dysentery was rare in Washington, and the author was able to collect only a few cases for study. The following conclusions are given: (1) Washington, D. C., is included in the geographical distribution of *B. dysenteriæ* (Shiga). (2) The Shiga bacillus is found in this city both in adults and children suffering from dysentery. (3) The alkaline (Shiga) and acid (Flexner) types are found here in both adults and in children. (4) An alkaline type found in the Gladmon baby case is a slight variation from the type in that in three days in glucose agar, not first made sugar-free, the bacillus produces a slight amount of gas, whereas no gas was produced with the sugar-free glucose agar. None of the other Shiga bacilli at hand produced gas in this same medium. (5) The three cases of soldiers are all double infections with *Entamœba histolytica* and *Bacillus dysenteriæ*.

5. **Prostatectomy.**—Murphy concludes in this number an elaborate paper. The histories of all the fifty-one cases are given. The author's conclusions are: (1) The perineal route gives the best ultimate result. (2) It is accompanied by less danger than the suprapubic or Bottini operations, as regards *(a)* hæmorrhage; *(b)* sepsis; *(c)* injury to the neighboring structures; *(d)* life. In fleshy patients the hæmorrhage is more profuse, repair slower and the urethral fistula lasts for a longer time. (3) The drainage is excellent, and favors rapid restoration of the bladder to its normal condition. (4) The period of wound repair is much shorter than by the suprapubic route. All cases had primary union down the drainage tube. (5) The vesical control is almost uniformly good. (6) The sexual power is usually destroyed. (7) The relief of vesical irritation is great, and the frequency of urination is reduced to about normal.

6. **Leucæmia.**—Grosh and Stone review the cases of leucæmia, treated with the x ray, that have been reported by Senn, Herman Grad, and E. J. Brown. Their own patient died quite suddenly just as they were looking forward to the possibility of a symptomatic cure.

8. **Typhoid Fever.**—Abstracted in Report of Association, June 11, 1904, page 1167.

MEDICAL RECORD.

June 25, 1904.

1. Foreign Bodies in the Eye and Their Removal with the Electromagnet, By Wilbur B. Marple.
2. When and How Shall We Operate for Prostatic Hypertrophy? By Willy Meyer.
3. A Case of Hyperpyrexia, with Recovery, By H. Walton Wood.
4. Case of Nail in the Deep Urethra, By G. Frank Lydston.
5. Chemic and Physiologic Action of the Potassium Chlorate and Iron Mixture, By W. E. Dreyfus.
6. A Case of Turpentine Poisoning, By E. D. Newman.
7. The Simultaneous Occurrence of Typhoid and Malarial Fevers in the Same Patient, By V. E. Watkins.

2. **Prostatic Hypertrophy.**—Meyer concludes his article as follows: 1. In view of the present advanced status of prostatic surgery, the catheter should no longer be advised as a routine measure in the surgical treatment of the disease. 2. Operative intervention should be urged as soon as the time for the regular use of the catheter has come. 3. Prostatectomy, being the most radical as well as the most surgical procedure, commands the first place in the treatment of the hypertrophied prostate gland, especially since the technics has been perfected to such a point as to render the operation a comparatively safe one, the mortality having been shown to be less than 5 per cent. 4. The perineal route seems preferable to the suprapubic, for the reason that it enables the surgeon to do the operation more under the guidance of his eyes. 5. The choice of route in the average case will probably hinge on the question of preservation of sexual power, provided this point is of importance to the patient. 6. The patient's age does not furnish a contraindication to operation; it is his general condition merely, that has to be taken into consideration. 7. Where the effects of general anæsthesia are feared, spinal anæsthesia is indicated. 8. If the operation with the knife is refused or contraindicated, Bottini's operation should be advised, since it, too, yields excellent results.

3. **Hyperpyrexia.**—Wood reports the following case: A male, of negative neurotic history, developed after a chill a temperature of 107° F. Sponge baths were resorted to, yet the temperature continued to rise and soon reached 112° F. The pulse was 140, the respirations shallow, panting and irregular. Prolonged ice baths were now given. After one lasting for thirty-five minutes the temperature fell to 103.2° F. The temperature reached subnormal by the sixth day. The patient eventually recovered.

6. **Turpentine Poisoning.**—Newman reports the case of a varnisher who became poisoned through inhaling the fumes of turpentine. The onset of the symptoms was sudden, beginning with nausea and thickness of speech, which were followed by constipation, difficult breathing, frequent urination and irritation about the gums. The urine had the smell of violets.

July 2, 1904.

1. The Distinctive Character of the Temperature Curve of Measles and of Scarlet Fever; and the Treatment of Hyperpyrexia in These Diseases by Baths of Increasing Temperature, By Henry W. Berg.
2. Grave Anæmia Due to Hookworm Infection, By Louis M. Warfield.
3. Acute Tetanus Cured by Intraneural Injections of Antitoxine, By John Rogers, Jr.
4. The Non-Significance of Clinical Symptoms in Determining the Pathological Conditions of Appendicitis, By A. P. Stoner.
5. Hygiene in Gynæcology, By C. A. Von Ramdohr.

1. **Temperature Curve of Measles and Scarlet Fever.**—Berg asserts that the clinical observation of measles and scarlet fever in hospital and private practice has led him to the conclusion that the temperature curve in these two acute infectious diseases is as characteristic and distinctive for each of them as are the respective curves of typhoid, typhus, and smallpox. His paper is devoted to proving this assertion. Numerous charts illustrate the article. It is not possible to give more than the general result of the author's observations. The charts show that in measles the temperature rises in steps, irregularly, to about the sixth day, then falls by crisis on the seventh or eighth day. In scarlet fever the rise to the maximum temperature occurs on the first day. The temperature stays at the maximum until about the sixth day, when it falls by lysis, reaching normal between the tenth and thirteenth days.

2. **Hookworm Infection.**—Warfield calls attention to the fact that a good deal, if not most, of the grave anæmia seen in the South, is due to hookworm infection. He does not think that malaria is so often responsible for anæmia as most Southern practitioners believe. He advises that the stools of all anæmic patients should be examined for the intestinal parasite. The author is a believer in the theory that the infection is acquired through a previous attack of ground itch, or at least that the connection between these two diseases is a very close one.

3. **Acute Tetanus.**—Rogers is a believer in the intraneural injection of tetanus antitoxine. One case of tetanus which was so treated and in which recovery ensued is reported. The patient, a boy aged eleven years, received a wound in the foot. Seven days later tetanus symptoms developed. Antitoxine was injected into the anterior crural and sciatic nerves and into the spinal canal, at the junction of the second and third lumbar vertebræ. The symptoms abated almost at once, though next day the child's condition seemed hopeless. The author believes that this was so because the obturator nerve was not treated. The patient was reinjected, this time into the spinal cord between the second and third dorsal vertebræ. Marked improvement took place almost at once. The boy finally recovered.

4. **Appendicitis.**—Stoner reports two cases which show that almost insignificant inflammations of the appendix may give rise to apparently urgent symptoms, while grave lesions may not produce other than mild constitutional disturbance. From this he concludes that all cases of appendicitis are surgical affections from the beginning.

MEDICAL NEWS.

July 2, 1904.

1. Medical Education in Colorado, By S. G. Bonney.
2. A Consideration of the Question of Drainage in Cases of Acute Appendicitis with Spreading Peritonitis, By Lucius Wales Hotchkiss.
3. Primary Myokymia; with Report of a Case, By Robert M. Daley.

4. Diagnosis and Treatment of Internal Hæmorrhoids,
By H. A. Brav.
5. Observations on Obstetrics in General Practice,
By J. F. McNulty.

2. **Drainage in Acute Appendicitis.**—Hotchkiss, within the past eight years, has operated in 114 cases of appendicitis in the J. Hood Wright Hospital. He bases his paper on these cases. In the first three years he operated in 42 cases with 13 deaths. In the following five years he operated in 72 cases with no deaths. In the first series of cases there were 12 of rapidly advancing peritonitis, and of these death occurred in 11. In the second series there were 15 cases of advancing peritonitis with no deaths. The author believes that the change in technics between the first and second series of operations is responsible for the improved results. All the 15 cases of advancing peritonitis in the second series are reported in detail. In such cases the author's method of operating may be summed up as follows: A small gridiron incision (McBurney's muscle splitting incision) as the method of approach. Removal of the appendix, whenever possible, and its location by the sense of touch. As little handling as possible of the intestines. Reliance on flushing the abdominal cavity with hot salt solution, rather than upon drainage for the removal of pus. In pus cases the belly wall should be drained.

3. **Primary Myokymia.**—Daley reports his case at very considerable length. Myokymia is a disorder characterized by fibrillary and wave-like contractions of the individual fibres of various muscles of the body without locomotor effect. It is more than a simple fibrillary tremor, for the whole body of the muscle also undergoes rather slow wave-like contractions passing from one end to the other. The condition rarely occurs primarily. Nothing is known of the pathology of the condition. It nearly always occurs in men who use their muscles to excess. The best treatment of the condition is by rest, galvanism and the warm bath.

4. **Hæmorrhoids.**—Brav asserts that hæmorrhoids develop in an orderly manner and pass through three stages. (1) Capillary hæmorrhoids. These are the so-called bleeding piles. (2) Arterial hæmorrhoids. (3) Venous hæmorrhoids. In the first two stages of development hæmorrhoids may usually be cured by attention to diet and hygiene, and resort to local applications. The third stage is best treated by operation. If, however, operation is refused, injections of carbolic acid will permanently cure in about thirty per cent. of all cases. The author prefers to operate by the ligation method. Next to ligation the clamp and cautery method is to be preferred.

AMERICAN MEDICINE.

July 2, 1904.

1. The More Remote Consequences of Infectious Bile,
By John B. Deaver.
2. Œdema, By S. J. Meltzer.
3. Pneumopericardium, By Walter B. James.
4. Tuberculosis as it Affects the Skin,
By M. B. Hartzell.
5. A Case of Ruptured Intestine with Artificial Anus, Fæcal Fistula and Opening Through the Scrotum,
By E. A. Vanderveer.
6. Measurements of Blood Pressure in Fevers Before, During and After the Administration of Strychnine,
By Richard C. Cabot.
7. School Hygiene and the Teaching of Hygiene in the Public Schools, By Seneca Egbert.

1. **Infectious Bile.**—Deaver asserts that the two microorganisms which most frequently infect the bile are the colon and the typhoid bacilli. The consequences of such infection, to which he chiefly calls attention, are stones in the gall bladder or in the bile ducts, pancreatitis, biliary cirrhosis and adhesions of the gall bladder to various surrounding structures. The author holds that biliary stasis in itself is capable of producing biliary cirrhosis, yet complete bile stasis rarely occurs in common duct obstruction, and he believes, therefore, that infection must exert a positive influence in the production of cirrhosis. The treatment of diseases of the biliary tract is surgical. The author goes so far as to advise surgical intervention when gall stones are merely believed to be present. That is in the absence of the so-called characteristic symptoms. The indications for cholecystectomy and cholecystostomy are discussed. While the author does not go into the details of operations he indicates his preference of methods.

2. **Œdema.**—Meltzer's paper is the first of four lectures delivered by him, at the University of Buffalo, on "Œdema. A Consideration of the Physiologic and Pathologic Factors Concerned in its Formation." This first lecture is devoted to showing how misleading textbook statements are, and to giving definitions of the exact meaning of some of the physical terms which are used in the discussions of lymph and œdema—such terms as diffusion, filtration, osmosis, etc.

3. **Pneumopericardium.**—James asserts that there are but 37 satisfactorily reported cases of this affection. His own case brings the total to 38. A table gives the chief points regarding all these cases. The diagnosis should not be difficult if the possibility of the affection is kept in mind. The most characteristic sign is a splashing, gurgling sound synchronous with the heart beats, and variously described by different observers. By the French it was called *bruit de moulin,* or *bruit de la roue hydraulique,* from its resemblance to the noise made by a waterwheel. It has been likened also to the sound made by an old-fashioned churn (Meigs). Its character is unmistakable, and it can hardly be confounded with any other sound heard in physical examination. A possible source of confusion might arise from hydropneumothorax, succussion being produced by the action of the heart, and the sounds being transmitted to the præcordium. Of the 38 cases, 26 resulted fatally, 11 patients recovered. Among those that recovered, 4 cases were caused by stab wounds, 4 by some injury, such as a fall, blow, or crush, which produced pneumopericardium without an external perforation, but presumably through a tear of the pericardium itself.

4. **Tuberculosis of the Skin.**—Hartzell discusses chiefly four lesions of the skin which are due to tuberculosis. (1) Lupus vulgaris. Treatment: Excision if there is a single small patch of disease. If this cannot be done, the Finsen or the Röntgen light treatment will usually give good re-

sults. (2) Verrucose tuberculosis, the anatomical wart, usually responds well to curetment and cauterization with caustic potash. (3) Lichen scrofulosorum is generally easily managed with cod liver oil internally and locally. (4) Scrofulous ulcers should be kept clean and stimulated. Mercurial ointments applied two or three times a day are of service.

6. **Blood Pressure.**—Cabot gives his observations in eight paragraphs. The last one is: "To me one of the most striking features of the investigation was the fact that while strychnine and whisky seemed to be entirely without influence upon the blood pressures, the sight of the dinner tray or the prospect of getting up produced a most obvious, though transient, rise in the pressure. The only permanent gains in pressure occurred when the patient reached a crisis (as in pneumonia) or when convalescence enabled him to get up and walk."

LANCET.

June 18, 1904.

1. Deaths in Childhood: a Preventable Mortality. (The Milroy Lectures: I), By W. WILLIAMS.
2. The Lymphatics of the Larynx and Their Relation to Malignant Disease of that Organ, By P. R. W. DE SANTI.
3. On the Ætiology of Scurvy, By M. COPLAUS.
4. The Treatment of Tabes Dorsalis and Its Prognosis, By M. FAURE.
5. Seven Cases of Hour Glass Contraction of the Uterus, By P. RENDALL.
6. Notes on the Analytical Examination of Urine, By A. H. ALLEN, and A. R. TANKARD.
7. Nephrectomy After Injury, By H. T. COX.

2. **Lymphatics of the Larynx.**—De Santi gives an account of the most recent work on the lymphatics of the larynx, and discusses the anatomical facts in their relation to the spread of malignant disease of the larynx to the lpmphatic glands. All the glands included between the posterior belly of the digastric and the clavicle may become infected in cases of laryngeal cancer. There is nothing especially characteristic in their mode of invasion. Infection of the prelaryngotracheal glands is decidedly rare. The gland most frequently enlarged is that placed at the level of the anterior border of the sternomastoid muscle about the height of the space which separates the hyoid bone from the thyreoid cartilage. As long as the disease remains limited to one half the larynx glandular infection occurs only on the affected side. In early intrinsic carcinoma of the larynx of limited extent, the disease can be most thoroughly dealt with by the operation of thyreotomy or laryngofissure. But it must always be remembered that the disease is frequently more extensive than it appears to be in the laryngeal mirror, and consent to perform unilateral laryngectomy should always be obtained. The removal of small portions of cartilage does not justify the application of the term "partial extirpation of the larynx." The whole question of operation turns on two points: (1) the site of origin of the disease; and (2) the stage in which the disease is diagnosticated. The author agrees with Cunéo that extirpation of the group of glands liable to infection should be systematically carried out in all cases of malignant disease of the larynx, with the exception of those cases of intrinsic origin which are seen early, are of limited extent, and in which there is no clinical evidence of glandular infiltration.

3. **Scurvy.**—Coplaus had an unequalled opportunity for the study of scurvy in the Eastern Transvaal and Orange River colonies at the close of the Boer war, in 1902, when the disease was very prevalent. He concludes that scurvy is caused by a specific infection, basing this contention on the study of the epidemic behavior of the disease and of its clinical features. Food is certainly not the sole cause of the disease. The infection appears to occur through the mouth, the general system being involved later and secondarily. No definite statement can be made as to the manner in which the primary infection occurs and how it gives rise to the manifestations of the disease in the mouth. The author's general conclusion is, then, that scurvy is not due to either the presence or absence of any particular kind of food from the dietary, but rather to an infection for which food may act as a vehicle under conditions of dirty storage or dirty preparation; and considering that the disease prevailed in inverse proportion to the standard of personal hygiene of the individuals affected, its infectivity would seem to depend on the insanitary habits and perhaps the unwholesome occupation of those who were its victims.

4. **Locomotor Ataxia.**—Faure deprecates the idea that tabes can only be cured by drugs. Every case is a complex problem, and such causes as syphilis, overwork, alcoholism, tobacco, influenza, tuberculosis, and the like must always be taken into consideration. Antisyphilitic treatment should always be tried, especially early in the attack, but it should not be kept up as a routine measure, especially if it gives bad results. No tabetic gets well solely on account of the quantity of iodide or mercury which he absorbs, and further aggravation of the disease is more frequent among tabetics who are put on an antisyphilitic treatment in increasing doses. The disease is only progressive in about one third of the cases, and is arrested, improved, or gets well in about one fourth of the cases, the remainder progressing very slowly. The prognosis is much better now than formerly, for the reasons that the diagnosis is made earlier, iodides and mercurials are more generally used, and finally the tabetic takes care of and interest in himself, just as a tuberculous individual is taught to do. The patient must not be allowed to think that a speedy radical cure is possible, nor, on the other hand, that his lot is hopeless. Arrest with persistence of loss of knee jerk or Argyll Robertson's sign is practically a cure from the patient's point of view. He should take an annual treatment of one or two months, during which time by means of special exercises he should learn to train his respiratory and urinary systems to overcome the defects due to the disease. And the continuity of the treatment must be maintained, not for days or months, but throughout the years.

5. **Uterine Hour Glass Contraction.**—Rendall reports seven cases of hour glass contraction of the uterus occurring in two hundred obstetrical cases. All the patients recovered. The explanation of this abnormal muscular contraction of a section of the uterine wall seems to be that the womb is in full retraction and contraction to expel the child, and when this has been accomplished it attempts afterwards to expel the placenta. But in a small proportion of cases the placenta cannot be at once detached by these muscular efforts from its uterine site and the retracting longitudinal muscular fibres, meeting with an unexpected resistance and exhausted by their recent prolonged efforts, relapse into a state of inertia. The circular fibres, however, below the placental site, acting simultaneously, find no resistance to their endeavors and contract firmly, and thereby exert perhaps an inhibitory action on the retractive longitudinal element below them—e. g., in the lower two thirds of the uterine muscular walls.

6. **Urine Analysis.**—Allen and Tankard give the results of their efforts to simplify some of the methods of urine analysis, so as not gravely to affect their accuracy. Methods for the quantitative determination of the chlorides, phosphates, and uric acid are given. For the detection of faint traces of albumin they recommend salicylsulphonic acid as a testing reagent.

BRITISH MEDICAL JOURNAL.

June 18, 1904.

1. The Reaction of Protoplasm in Relation to Chemiotaxis. (Report No. LXXXVI to the Scientific Grants Committee of the British Medical Association), By J. O. W. Barratt.
2. Unique Case of "Floating" Kidney in Which Nephrorrhaphy Was Successfully Performed: The Kidney Was Within the Peritoneal Cavity and Had a Mesonephron, By D. Newman.
3. A Case of Leucanæmia With Great Hyperplasia of the Spleen and Prevertebral Hæmolymph Glands and With Increase of Connective Tissue in the Bone Marrow, By F. P. Weber.
4. Note on the Antihæmolytic (Hæmosozic) Properties of Normal Urine, By M. A. Ruffer, and M. Crendiropoulo.
5. The Deterioration of Vision During School Life, By E. Sayer.
6. Observations on an Epidemic of Scarlatina, By B. Thornton.
7. The Surgical Treatment of Abdominal Aneurysm, By R. C. B. Maunsell.
8. A Case of Permanent Closure of the Jaw Resulting from Infantile Paralysis, By W. E. Meads.

1. **Protoplasm and Chemiotaxis.**—Barratt's paper deals with the influence exerted upon cell protoplasm by acids or alkalies acting under conditions simulating chemiotaxis. His conclusions are: 1. Exposure of paramœcia to acids or alkalies of sufficient concentration to kill in twenty or thirty minutes does not affect the staining reaction of the organisms. 2. Prolonged exposure of paramœcia to acids or alkalies of higher concentration causes the well known appearance of "accentuation" of basic or acid staining, respectively, but this is a change affecting the protoplasm after death, and therefore different from chemiotactic phenomena. 3. Paramœcia killed by the constant current resemble those killed by acids and alkalies of minimum lethal concentration (1). 4. The chemical reaction of the protoplasm of paramœcia cannot be determined by means of indicators in respect of a concentration of H + and OH — ions which is less than 0.001 N. Within this limit the protoplasm, living or dead, gives no evidence of acid or alkaline reaction. 5. The protoplasm of paramœcia killed by mineral acids or by alkalies of low concentration gives no evidence of acid or alkaline reaction with methyl orange or phenophthalein. 6. Paramœcia killed by the constant current do not exhibit any acid or alkaline reaction.

3. **Leucanæmia.**—Weber reports a case of leucanæmia occurring in a man aged fifty-eight years. The main features of the case are summed up as follows: 1. Progressive waxy pallor and asthenia, with maintenance of subcutaneous fat. 2. Changes in the red blood corpuscles similar to, but not so extreme as, those seen in pernicious anæmia. 3. Absence of true leucæmic changes in the blood, but presence of slight myelocythæmia and inversion of the relation of lymphocytes to multinuclears. 4. No abnormal pigmentation of urine. 5. Changes after death in the hæmopoietic tissues similar to those seen in "mixed cell" leucæmia. 6. Abnormally firm consistence and increase of connective tissue in the bone marrow from the shaft of a long bone. 7. Absence of enlargement of the ordinary lymph glands, but great hyperplasia of the spleen and prevertebral hæmolymph glands. 8. Absence of reaction for free iron in spleen, liver, and kidneys. 9. Charcot-Leyden crystals were not noticed.

4. **Urinary Antihæmolysis.**—Ruffer and Crendiropoulo, noting the fact that red blood corpuscles are not, as a rule, dissolved by normal human urine, have investigated the antihæmolytic (hæmosozic) properties of urine. They find that urine added to a serum with marked hæmolytic properties, prevents such hæmolysis. This is due to the presence in the urine of a hæmosozin, which is destroyed by heating to 120° C., and is completely precipitated by alcohol or saturation with ammonium sulphate.

5. **Sight of School Children.**—Sayer states that in the recent investigation of the eyesight of the school children of London, it was found that their vision steadily deteriorated. At six years of age 81 per cent. had good vision: the defects steadily increased with each three months of age, until at eight years only 77 per cent. could see satisfactorily. No child's eyes were intended by Nature to undergo the strain of accommodating over lessons for six or seven hours daily between four and fourteen years of age. If, however, compulsory education demands it, then those 20,000 or more children with defective vision should have a specially modified curriculum devised for them, and should be provided with glasses if their parents are too poor to pay for the same. Such children are as unfit to become students as cripples are to become soldiers.

AMERICAN MEDICAL ASSOCIATION.

Fifty-fifth Annual Session, Atlantic City, June 7, 8, 9, and 10, 1904.

SECTION OF SURGERY AND ANATOMY.

Third Day, June 9th, Morning Session.

Anatomy of Inguinal Hernia, Andrew's Operation for Radical Cure.—Dr. G. N. Eisendrath, of Chicago, presented two remarkably well devised and interesting models, to illustrate the points of his paper. They consisted of a series of sheets of different colored sweater cloth, hung on frames so as to present graphically the layers of the part in plan and in elevation. He gave a historical sketch of the development of hernia operations, and then described Dr. Andrew's technics in detail. He said that while it might not be necessary to use this method in every case, it was of the very greatest utility in those patients whose internal oblique was either very highly arched or was in a measure deficient. The point of the technics consisted in joining the external oblique, the internal oblique, and the transversalis, to Poupart's ligament, posteriorly to the cord. The latter was then protected from injury by being buried with an imbrication suture of the external oblique. This method had the advantages of the Halsted method, in that the cord was protected, and of the Bassini, in that there were three layers instead of two sutured to Poupart's ligament.

Three Years' Experience With the Autoplastic Suture for Hernia.—Dr. L. L. McArthur, of Chicago, presented this final report on this interesting topic. He demonstrated among the audience a magnificent specimen, the equal of which had rarely been shown, and the superior of which could scarcely be prepared. It demonstrated most clearly and convincingly the method of preparing the autoplastic suture, and showed the method of its insertion in a Bassini operation very convincingly. The suture, as was well known, was taken from the margin of the slip in the external oblique; one from each side. He reported 93 cases, the variations in the age of the patients having been from six months to seventy-eight years. He had lost one of the patients through intercurrent disease, some six months after operation for hernia. Microscopical examination of the part demonstrated that the suture had organized and remained alive. It seemed to the ingenious author that such a condition must offer a more positive barrier to recurrence than the introduction of an absorbable material, and yet it possessed none of the disadvantages of a non-absorbable stitch. If infected, the suture died and the conditions then became analogous to that which was found when catgut is used.

Dr. E. W. Andrews said that the principle of the imbricated stitch was a good and an old method of surgery. The technics had been employed by Mayo in his most admirable method of closing ventral herniæ. He said that McArthur's strips lived, and he believed that the technics had a much wider application than its narrow and limited use in hernia operations.

Dr. Stokes said that formerly it was the custom of the government to give pensions to army and navy men who developed herniæ during service. Recently, however, a rule had been established that unless they submitted to being "Bassinized" they could get no pension.

Dr. Bloodgood said that in certain chosen conditions nothing as yet devised could be the equal of Andrew's imbrication method. He said that the test of a hernia operation lay entirely in its durabilty. Suppuration was the most frequent cause of recurrence.

Dr. Marcy, of Boston, said that Oliver Wendell Holmes had remarked that "the more sticks you split, the more you may," when he attempted to teach the anatomy of hernia. In 1870, Marcy began to operate for hernia, and he conceived the employment of the buried absorbable stitch.

Dr. Arthur D. Bevan, of Chicago, advised the resection of that part only of the sac which was actually in the canal. If it extended to the scrotum, removal of it increased the traumatism and liability to hæmatomic formation. He looked very favorably upon Andrew's imbrication method, and believed that the rectus should be used in case the internal oblique was deficient. In 25 per cent. of his cases, he employed local anæsthesia. The suture material must be absorbable.

Surgery of the Trifacial Nerve and Its Ganglia.—Dr. John B. Murphy, of Chicago, said that the surgery was divided into five stages: (1) The section of branches down to the cranial foramina; (2) division of branches within the cranium, with efforts to occlude the foramina; (3) removal of the Gasserian ganglion with intracranial segments of nerves; (4) extraction of the sensory root; (5) intraneural injections. The mortality of intracranial operations for this disease was too high to justify its use, for the reason that the disease itself did not kill. The pathology of the condition was absolutely unknown, the only actual thing that we did know being that the pain was of a most frightful character. Undoubtedly the otic and other ganglia played very important parts in the pathology of the disease. The intraneural injection of osmic acid was easy, and in his eleven cases had given very encouraging results. He used ten or twelve drops of a 2 per cent. solution in water. He injected the third division of the nerve through the mouth. These osmic injections were utilized thirty years ago, but it seemed probable that they were not made with the degree of thoroughness which was requisite for success. They must be made directly into the nerve and must be made multiple. Suppuration and necrosis might occur.

Intracranial Neurectomy for Trigeminal Neuralgia.—Dr. H. M. Sherman, of San Francisco, presented the reports of five operations on four patients. Three of these patients made uneventful recoveries from the pain, but in one there existed the most distressing seventh nerve paralysis. This resembled the case cited by Wyeth, in being probably caused by traction at time of operation. He had, to his great regret, followed Frazier's advice in simply cutting the sensory root of the Gasserian ganglion. The relief from pain lasted for but a few days, and he was obliged to reoperate on the patient and remove the ganglion. He recommended filling the wound area with salt solution prior to closure.

Four Cases of Division of the Sensory Root for Tic Douloureux.—Dr. C. H. Frazier, of Philadelphia, said that he considered the inability of the sensory root to regenerate, established. Under certain conditions, he advised, in addition to its section, the resection of the posterior portion of the ganglion. He believed that the combination of these two technics would be in every case equivalent to removal of the ganglion. None of his cases, however, was as yet three years old.

Dr. Robert F. Weir stated that he had faithfully tried osmic acid twenty years ago, and his belief formed then had remained unaltered, to wit: that his technics was not equal to resection. Speaking of the introduction of a plate of gutta percha tissue, as recommended by Abbe, between the severed segments of the root, Weir stated that some years ago, he had introduced gutta percha tissue into the brain and had found that it was penetrable. He did not, therefore, at the present time consider it an effective barrier against nerve regeneration. He was inclined to the belief, much against his will, that sooner or later we should all be obliged to admit that for the permanent cure of bad cases of trifacial neuralgia, an intracranial operation was necessary.

Dr. J. S. Horsley, of Richmond, stated that he believed personal idiosyncrasy to be a hitherto little observed, but profoundly important, factor governing the regeneration of nerves. He advised the use of a high Cushing operation and recommended that it should be combined with carotid ligation.

Dr. J. H. Cushing, of Baltimore, said that he could hardly conceive of a series of cases of genuine, severe, trifacial neuralgia being cured by the injection of osmic acid. In criticism of Dr. Murphy's statement, that there was no mortality associated with this disease, he submitted that 50 per cent. of these patients committed suicide. He said that the method of approach to the ganglion was now no longer the very high nor the very low path, a middle ground having been found to be the most practical. This horizontal operation had a mortality rate of but 5 per cent.

Dr. Sherman, in answer to the criticism of Dr. Frazier, that he probably had failed to cut the root, stated that this had been done, as was evidenced by the paralysis of the pterygoids.

Laminectomy.—Dr. John C. Munro, of Boston, reported thirty cases of laminectomy in addition to spinal injuries which had not come to operation. He contrasted the after results in those patients who had, and those who had not, undergone operative treatment. He said that every effort should be made to create as simple a technics as possible, because the element of shock was very important as a factor for success in these patients. Although very discouraging to work in this field, there were some rewards to be obtained. One consisted in the definite establishment of the fact that we knew little or nothing about the subject of degeneration, or whatever it might be, in these cases, that interfered with the function of the transmission of nerve impulse. It evidently was not a mere nerve degeneration, as was evidenced by the fact that in two chronic cases he had had most encouraging recoveries. In no branch of surgery was there a greater need of wide clinical and experimental work.

Dr. Lund, of Boston, cited the frequency of fracture-dislocation in crushing injuries of the spine, and said that unfortunately the cord was often hopelessly damaged to a length of from one to two inches in these patients, but nevertheless, there was a small portion which seemed clinically to have suffered absolute transverse myelitis; in other words, in whom one could not clinically differentiate between a reparable and an irreparable injury. This class was small, but sufficiently large to warrant the giving of the most careful surgical care to all cases of spinal injury.

Dr. Cushing said that hæmatomyelia was one of the lesions most difficult to differentiate from pressure, and it was very necessary that the diagnosis be made, for the reason that operation in hæmatomyelia was strictly contraindicated.

The Treatment of Cold Abscesses and Sinuses in Tuberculous Disease of Bone.—Dr. V. P. Gibney, of New York, said that the frequency of cold abscess formation years after a tuberculous lesion was thought to have been healed, was one of the anomalies of medicine. No treatment, he said, has yet been devised which was satisfactory. Early recognition of the conditions which would eventually produce a cold abscess was essential if it was hoped to nip it in the bud. Given such an abscess well developed, it should be protected and left alone, unless in the way in which case it should be amputated and cultures made. This failing, injections should be avoided, open incision should be practised, no chemicals should be put in the wound, and it should be closed, if possible, within forty-eight hours.

Third Day, Afternoon Session.

Old Unreduced Dislocations.—Dr. DeForest Willard, of Philadelphia, insisted upon the need of profound anæsthesia in all these cases. He advised continuous traction as applicable to certain cases. He concluded that early diagnosis should be made in every case if the x rays were employed; that manipulation should be gentler in old than in new dislocations; that in practising open section, all limiting soft parts should be cut; that frequently partial resection of bone was the best technics; that the danger of sepsis was graver when operating in a field that had previously been operated upon, than otherwise.

Dr. Arthur D. Bevan, of Chicago, said that the value of x rays in diagnosticating the lesion of dislocation could not be overestimated. Willard was right when he said that the treatment of old dislocations was to have none. In the technics of elbow reductions, the triceps tendon should be saved and the parts put up in flection. Resection of the head of the bone was often better than any other technics.

Dr. Joseph A. Blake, of New York, spoke in the highest terms of the value of the x rays as a diagnostic factor of first importance. He said that mechanical methods of reduction were practically valueless as compared with the open incision. When operating for reduction of the shoulder, the opening should be made well anterior to avoid the deltoid. If need be, one might combine it with a transverse incision just beneath the acromion. He endorsed the lateral incision for opening the elbow joint, and had often noticed that the results following surgical treatment of this joint for dislocation were almost invariably better than in the shoulder. This he accounted for in part by the fact that the shoulder was not a fixed point, and therefore could not be subjected to as great force in applying passive movements as the more readily treated elbow.

Conservative Perineal Prostatectomy, Report of Fifty Cases.—Dr. H. H. Young, of Baltimore, stated that, in 1896 and 1897, he had performed the suprapubic operation; that he had subsequently been led into doing Bottini's operation, but that recently he had come to operate entirely by a removal of the gland through the perinæum. In his fifty cases he had had no deaths. His technics was illustrated by many elegant charts.

Prostatic Obstruction.—Dr. Parker Syms, of New York, spoke of the imperative need of simplicity in making a diagnosis. He had tried the Bottini and the suprapubic, and found them wanting. Catheter life was, in his opinion, a positive indication for prostatectomy, for the simple reason that it had a mortality of 100 per cent. He stated that by making a simple median incision and by drawing the gland well down into view, as might readily be accomplished by the use of his rubber retractor, the operation could be done in eight minutes. The convalescence in these cases should be uneventful. Some patients were able to be up and walking around within twenty-four hours, and they were rarely more than two days in bed.

Prostatectomy in General, Especially by the Perineal Route.—Dr. George Goodfellow spoke of the horrors of catheter life, and said that no instrumentation of the bladder should be practised which could possibly be avoided, and affirmed that the residual urine was by no means always significant of a large prostate. His technics resembled that of Dr. Syms, with the one exception that he did not find it necessary to use a retractor. In 78 operations, he had had two deaths, one from sepsis, another from shock. Sixty-seven years had been the average age of his patients.

Is It Wise to Try to Make Any One Operative Method Apply to All Prostatectomies? — Dr. Eugene Fuller, of New York, cited various indications for and against the prominent methods, basing his deductions upon a study of his last 300 cases.

Dr. Martin B. Tinker, of Ithaca, described a method of infiltration anæsthesia which he had used most successfully in his recent series of prostatectomies. He used the formula advised by Matas, viz., eucaine B., with adrenalin one to one hundred thousand. Dissection at the Cornell Medical College had convinced him that the entire prostate and periprostatic region was supplied by the pudic and long pudendal nerves. In thin old men it was very easy to strike a needle into these nerves, as they wound about the tuberosity of the ischium; the one to the inner side, the other slightly anterior to it. The addition of the adrenalin served a double purpose. It prevented the absorption of too much eucaine, and reduced bleeding almost to nothing. The sole pain which one of his patients endured was in his own words "brought about by the discomfort of his position on the operating table." Others were equally comfortable.

Dr. Syms, in closing, said that the most important tribute which had ever been paid to perineal prostatectomy had just been vouchsafed in the statements of the recent speakers. They had cited 163 cases with but four deaths, a mortality of $2^4/_{10}$ per cent.

Kidney Stone, Diagnosis, and Treatment.—Dr. Arthur D. Bevan, of Chicago, said that a mild colon infection of the kidney was probably the most common cause of stone. The typical and classic picture of this disease was often so widely upset that it was unrecognizable in the light of the average textbook description. Stones occurred in one tenth of one per cent., as was evidenced by a long series of post mortem examinations made by him for this purpose. In establishing the diagnosis of stone, he had come to look upon the cryoscopic examination of the blood as of very great importance, the x ray, if properly employed, being without any doubt the most valuable aid which we possessed in obtaining direct proof of the existence of stone. He urged upon the section that the testimony of a single plate was not adequate, because of the possibility of blemishes in the glass being mistaken for stone shadows. The only logical treatment of the condition lay in the immediate removal of the stones. In the matter of technics, he suggested first, a wide incision, through which free delivery of the kidney could readily be made. The idea that any lines of diminished hæmorrhagic tendency existed was an utterly unnecessary refinement, it being possible to incise the organ freely wherever one might wish to do so. He had been impressed by the very slight escape of urine from the wound and this had led him to practise in sterile cases its immediate closure.

In closing, he emphasized two points: First, the necessity of diagnosis by the x ray, and, second, the early removal of the stones by free incision, followed by no drainage, provided there was no suppuration or obstruction to the ureter.

Dr. C. L. Leonard gave very full statistics which showed how perfect the technics of the x ray had become.

Dr. Joseph A. Blake paid graceful tribute to the author of the paper, stating that he regarded it as a most important communication. At the Roosevelt Hospital, he said, very beautiful radiographs were made in from six to eight seconds. Ureteral calculi often remained latent. This was one of their most dangerous characteristics, because it was the factor which favored the establishment of calculous anuria. The symptoms of such a stone might be absent or might be so very vague as to make diagnosis by any means other than the x ray practically impossible. The second question which he considered was that of the necessity of primary or secondary nephrectomy. Personally, he said, that he favored primary nephrectomy, because he believed it to be a life saving procedure. He agreed with Dr. Bevan that, in the case of an aseptic nephrotomy, the wound should always be closed without drainage.

Fourth Day, June 10th.

Election of Officers.—Dr. A. J. McCosh, of New York, was elected chairman of the section; and Dr. F. W. McRae, of Atlanta, Ga., secretary.

The Treatment of Fractures of the Patella by Lateral Suture.—Dr. JOSEPH A. BLAKE, of New York, spoke of the pathology and anatomy of the parts before dwelling on the technics which he had successfully employed. He said that the vasti were inserted not only into the patella, but also by lateral ligaments into the tibia. In fractures by direct violence alone, they were not torn, and hence no separation of the hard parts took place. In the case, however, of fractures by muscular violence, they were torn and the separation was consequently considerable.

The indication for operation, therefore, depended directly upon the degree of tearing of these lateral ligaments. Granting this theorem, that the patella was but a small element in the matter of operation, the technics revolved itself into a question of simple suture of the soft parts. For this he did not claim originality, stating that the principle had been recognized before, but had, in his opinion, not been sufficiently widely discussed. The new point which he presented to the section was the method which he employed of inserting the stitches. In order to coapt the patella as closely as was necessary to insure bony union of the part, these should be crowded as close to the fragments as possible, extending in a row outward and inward. He used kangaroo tendon, or No. 4 chromicized, catgut. He closed the external wound in the skin, which he made transversely, with silkworm gut without drainage. The advantage of the technics was its simplicity and the ease of its employment. It was rapid and had the distinguishing feature that its execution caused a minimum amount of traumatism to the tissue, with a resulting decreased probability of infection. He had employed the technics on 22 fractures, and in all had obtained admirable results.

Dr. VAUGHAN, of the Marine Hospital Service, agreed that the transverse, or horseshoe, incision advised by Dr. Blake was probably the best, but he had found that a long longitudinal incision in his hands gave as good access to the joint. He has utilized other varieties of ligature, but recently had returned to silver wire.

Dr. BINNIE, of Kansas City, said that bony union was not essential, inasmuch as the patella had been definitely shown not to be the important consideration. He advised early operation and a thorough suture of the lateral ligament.

Dr. RODMAN, of Philadelphia, said that Dr. Blake's paper was based on the best surgical and anatomical principles. Surgeons should, however, be careful to remember that there was an element of danger, not only to the limbs, but to the life of the patient. He believed that it was unncessary to wire the part.

Dr. EISENDRATH, of Chicago, said that he had stumbled upon Dr. Blake's operation some time ago by being obliged to sew up the small parts and omit suturing of the patella because his bone drill was broken. He had since avoided what he considered proved an unnecessary traumatism of the parts.

Dr. BULLARD said that he was interested to notice that Dr. Blake operated within from two to five days. Many prominent surgeons advised waiting until the tenth or twelfth day.

Dr. CHARLES POWERS said that eight or nine years ago he was requested to prepare a report on the status of the operation. He entered upon the work a firm believer that it was not justifiable, but he soon became convinced that it had an important place. He said that the suture of the patella alone did not constitute a complete operation.

Dr. BLAKE, in closing, said that it went without saying that the suture material must be absolutely sterile, and that indigitation and all, except unavoidable, instrumentation of the wound, was to be scrupulously avoided. He used formerly to wait a week before operating, but he found that by that time repair had extensively begun and the hæmorrhage was worse. He now operated if possible within forty-eight hours.

Surgical Treatment of Arthritis Deformans.—Dr. MARTIN B. TINKER, of Ithaca, said that it should be borne in mind that in these cases the physician was not dealing with rheumatism, but with a condition characterized by long continuance and by a progressive involvement of the great joints. So extensive was this apt to be, that absolute disability eventually took place unless some relief was had. He discussed the ætiological factors of the disease, stating as his belief that while nothing definite had yet been determined in this matter, it seemed most probable that the lesion was of an infectious character. He refuted the idea that it was in any way connected with tuberculosis, because he had used the tuberculin test in 400 cases recently, many of whom were afflicted with arthritis deformans. In not a single instance did he get the reaction which, in all fairness, was to be looked for after the injection of tuberculin. The lesion began as an extraarticular inflammation, but the joint surfaces soon underwent the characteristic mushroom change, and this was accompanied by the deposition of osteophytes. In the matter of treatment, there was little doubt that the progress of the disease could be stayed by the free use of hot air, massage, and electricity, but a certain proportion of cases, perhaps not more than 6 per cent., could be benefited by no other means than surgical intervention.

Brisement forcé, particularly in Germany, had been rather widely employed, but since the lesion was characterized by the presence of osteophytes, rather than by intraarticular adhesions, this procedure did not seem surgical. In the institution at which he was surgeon, he had seen a large number of patients who had undergone this sort of treatment without success. He believed arthrectomy to be indicated when the joint was absolutely fixed, and also in occasional rare cases for the relief of extreme pain. Koenig had reported 15 cases in which he had operated upon knees invaded by arthritis deformans, the results having been as good as could be expected in cases of tuberculosis.

Dr. VAUGHAN, in discussing the ætiology of the disease, said that it was in all probability of infectious origin; that nothing had yet been devised which had the slightest influence in preventing ankylosis. He cited a case, the subject of which had undergone *brisement forcé* three times, with the result that the joints had become permanently movable.

Dr. SHERMAN, of California, endorsed the removal of osteophytes and exostoses. He discussed the problems associated with the opening of a diseased joint.

Dr. TINKER, in closing, replied that in quiescent cases, he had experienced no evil result from opening the joint. He has been in the habit of placing his shoulder cases at right angles to the body, and then inducing passive movement early, but very gradually.

Impacted Fractures of the Neck of the Femur.—Dr. LEMOYNE WILLS, of Los Angeles, reported two interesting cases, and described in most minute detail both the history of the injury received by each, and the measurements of the extremities after recovery.

Fat Embolism of Lung Following Fractures, With Report of Two Cases.—Dr. F. G. CONNELL, of Leadville, said that the subject had received much attention on the continent, but had been practically neglected in Europe and America. It was usually supposed that these cases all presented more or less similar symptoms. This was a grave mistake. The discovery of fat globules in the sputum or urine of a suspected case would establish diagnosis. The progress was usually grave and the treatment prophylactic or symptomatic.

SECTION ON MEDICINE.

Fourth Day, Friday, June 10th.

Aneurysm of the Innominate Artery.—Dr. ALBERT P. FRANCINE, of Philadelphia, read this paper, and in conclusion he said that a delayed and weakened beat in the right radial, absence of pulsation in the right temporal, a turgid external jugular, in association with paroxysmal attacks of dyspnœa and pain at the root of the neck or referred to the right side, were very suggestive of innominate aneurysm. But the two signs to which he wished to call special attention and which had not, so far as he was aware, been before described in this connection, were the regurgitant quality in the right radial pulse, and the even more convincing signs of aneurysm in the suprasternal notch behind and above the right sternoclavicular articulation, in association with a distinctive angle of reentry in the second interspace. Unless relieved by operation these aneurysms sooner or later would rupture. The operation consisted in distal ligation of the right common carotid and subclavian, one or both, either consecutively or if necessary at the same time. In uncomplicated cases it had proved highly successful, the sac becoming obliterated by organized clot.

SYMPOSIUM ON ARTHRITIS DEFORMANS.

Pathology and Ætiology of Arthritis Deformans.—Dr. THOMAS MCCRAE, of Baltimore, read this paper. The uncertain state of our knowledge of arthritis deformans was dwelt on and the importance of determining whether or not we had one or more diseases included under the term. The anatomical distinctions between the two types were described, but the view was expressed that these were varying manifestations of the same disease. This seemed to be supported by their occurrence in the same patient. The various theories as to ætiology were gone over and the possibility of an infection being the cause was favored. There was as yet no positive evidence of a specific infection as against the possible casual agency of various ones.

Symptomatology in Arthritis Deformans.—Dr. JAMES J. WALSH, of New York, read this paper. He said that uric acid had nothing to do with rheumatic conditions. Rheumatic gout had disappeared and there was no middle term between the two. Chronic rheumatism was vanishing. Arthritis deformans could be traced in history at nearly all times. The bones of bodies buried probably 5,500 years ago showed in certain cases the signs of the changes in arthritis deformans. Certain English authorities divided arthritis deformans into three groups as follows: (1) The disease, commonly known as osteoarthritis, often confined to the hip joint, and most common in old men. (2) A disease milder in form and often not recognized, most common in women in middle life, and represented by deformities occurring in the terminal joints of the fingers. The deformity became considerable and ultimately due to bony outgrowth. (3) This form was one simulating ordinary acute rheumatism, and produced lasting changes in the joints and had a certain tendency to recur, and ultimately made the victim hopeless and a pitiable cripple. It occurred more commonly in young women. Perhaps the most characteristic of the differential diagnostic symptoms was that the salicylates failed to reduce the fever very materially, and failed to lessen the pain and discomfort. One of the most important features of this affection was its tendency to recur.

The Treatment of Arthritis Deformans.—Dr. CLARENCE EDWARD SKINNER, of New Haven, Conn., said that what had given him the most satisfaction as a routine treatment, to be modified according to the conditions surrounding the individual cases, was the following: (1) A diet as generous as could be digested and assimilated by the individual patient, and consisting largely of red meats. (2) Rest in bed for at least ten hours out of the twenty-four. (3) A pill consisting of $^{1}/_{40}$ of a grain of strychnine sulphate and 1½ grain of ferrous iodide, three times daily, half an hour before meals, and in the emaciated cases from one to four drachms of cod liver oil, three times daily, after meals. (4) A dose of some one of the mineral waters before breakfast two or three times a week if constipation was present. (5) A body dry hot air treatment two or three times weekly. (6) Central galvanization once or twice weekly. (7) A general application of mechanical vibratory stimulation two or three times weekly. (8) A static electrical application at least once every day, consisting in acute cases of the Morton wave current localized over the affected joints or spine, and in the chronic cases, of long, thick sparks to the affected joints one day, and the Morton wave current localized over these joints the next. (9) With ankylosed joints, wherein the acute condition had subsided and the functional impairment was not due to osteophyte formation, passive movements every day, in the form of alternate flexion and extension, the attempt being made to increase the excursion of the manipulated member each time, were of considerable use.

Fifty-one cases that had been treated in private practice during the past four years illustrated what could be done by the application of the treatment outlined. A practical and easily-comprehensible summary of the results obtained in these 51 cases were as follows: Out of 24 patients who were totally incapacitated for the performance of their daily duties, 6 were restored to a condition of unimpaired usefulness, 3 to a condition of but slightly impaired usefulness, and 8 of the remainder discontinued treatment prematurely; out of 27 who were partially incapacitated, 7 were restored to unimpaired usefulness, 4 but to slightly impaired usefulness, and of the remainder 14 discontinued treatment prematurely. Out of 36 patients who were suffering constantly from pain, 10 were relieved entirely; in 12 the pain was relieved to such an extent as to be troublesome only occasionally, and 11 of the remainder discontinued treatment prematurely. Of 15 cases in which pain was present only on movement, 5 were relieved entirely, 3 were greatly relieved, and of the remainder 8 discontinued treatment prematurely. Of 11 cases in which complete ankylosis of one or more joints was present, complete relief was obtained in one or more joints in 2, partial relief in 4, and in 5 treatment was discontinued prematurely; of 25 cases in which partial ankylosis of one or more joints was present, 13 were completely relieved, 12 partially so, and 11 discontinued treatment prematurely. Of 27 cases wherein the general condition was bad when the treatment was commenced, 10 were restored to normal health, 12 were greatly improved; of 19 cases wherein the general condition was fair, 5 were restored to normal and 8 were greatly benefited.

Dr. GOLDTHWAIT, of Philadelphia, said that the nomenclature used was unimportant, so long as we knew what was meant by the terms used. In arthritis deformans Dr. McCrae spoke of two types, the atrophic and the hypertrophic, but there were many cases encountered which he termed infectious arthritis. At times it was impossible to distinguish between the atrophic and hypertrophic at first glance; but with the radiograph it was now quite possible. In the disease described by Still, occurring in both children and adults, he did not know whether it was atrophic or hypertrophic in character; it seemed to be a matter of personal opinion. It seemed to him surprising that we should have these two types of the same disease, and one man had stated, and frankly, too, that from the start the disease never became chronic, while others said that at the start it was chronic and never became acute.

Dr. ALLEN JONES, of Buffalo, did not believe we should throw out the term chronic rheumatism until we had demonstrated positively either the specific cause for acute articular rheumatism or a specific cause for acute rheumatism and arthritis deformans.

Dr. DELANCEY ROCHESTER, of Buffalo, said that the treatment advised by Dr. Skinner was practically out of the question for the general practitioner, because of lack of the apparatus. Still he thought very good results could be obtained by them by carefully watching and handling these patients. He thought the application of hot air, not so hot as advocated, would be productive of good results. The use of the cabinet and friction was of value.

How the General Practitioner Should Treat Gonorrhœa.—Dr. FERD. C. VALENTINE, of New York, read this paper and offered the following conclusions: (1) Every general practitioner is practically competent to treat successfully uncomplicated anterior gonorrhœa, if he will devote as much attention to this as he does to any one other disease. (2) Every patient with gonorrhœa is entitled to the services of his family physician, just as much as if he had acquired any other disease in consequence of drunkenness or other violation of ethics or morals. (3) The general practitioner who declines to treat uncomplicated acute anterior gonorrhœa avoids one of the most sacred duties to the profession and to humanity. (4) The patient who, because he has gonorrhœa, is refused the services of his own physician, is likely to become an opponent to scientific medicine, to the detriment of his own health, that of his family, and of the community. (5) The scientific treatment of at least acute anterior uncomplicated gonorrhœa, is perfectly within the power of the general practitioner. (6) The irrigation treatment of gonorrhœa is, as yet, the most effective method, and that most in accord with the modern scientific understanding of the disease.

Problems for the Tuberculous Convalescent.—Dr. A. MANSFIELD HOLMES, of Denver, Col., read this paper. He said pure air and sunshine could avail but little if the patient was not provided with an abundance of suitable food. The wisest advice to patients would avail nothing if the patients were not sufficiently impressed with the importance of proper living, and it was in this that the sanatorium treatment surpassed the home treatment. The danger lay concealed in a latent form long after all subjective symptoms had disappeared. To form a correct estimate of convalescence. one should form a composite picture of all the available clinical evidence. If there was a gradual gain in weight extending over a comparatively long period, if this gain was accompanied by a gain in strength, if the gain of weight and strength were permanent, and if the cough, sputum, and bacilli diminished and finally disappeared, and if these conditions were maintained for a comparatively long period, a cure might be considered as practically established.

Election of Officers.—Chairman, Dr. Richard Cabot, of Boston; secretary, Dr. Joseph L. Miller, of Chicago. Executive committee, Dr. Frank A. Jones, of Memphis, Tenn.; Dr. W. S. Thayer, of Baltimore; Dr. Alexander Lambert, of New York.

SECTION ON NERVOUS AND MENTAL DISEASES.

Second Day, Morning Session, June 8, 1904.

The Nature of Traumatic Sclerosis. This paper was read by Dr. ARTHUR CONKLIN BRUSH, of Brooklyn, N. Y., who stated that it was a question whether the effects of trauma on the nervous system were due to conditions of grave hysteria, functional neurosis, or to a type of multiple sclerosis. He referred at considerable length to the physiological experiments of Mendel, Schmaus, Berkley, and others, and stated that the earlier observations indicated organic disease. He gave the report of a personal clinical study of fifteen cases, pointing out the differential points between this disease and true hysteria, and also the pseudosclerosis described by Westphal and Strumpell. This was followed by the microscopical observations in five cases, and the pathological differences between traumatic sclerosis and multiple sclerosis. A careful résumé of the opinions of various authorities was given, and the conclusion of the author coincided with that of Strumpell, that traumatic sclerosis was different from multiple sclerosis, and that the weight of evidence was in favor of a distinct organic entity.

Dr. ANGELL, of Rochester, N. Y., referred to the fact that these cases were frequently of such long duration that pathological findings could not be obtained. He recommended that the physician free his mind of the idea of a specific form of nerve injury, and that the case be examined as any other case of spinal trouble, irrespective of the cause. He cited the case of a man who had been injured in a railroad wreck, suffering no apparent injury, but six months later developing disturbance of the muscular apparatus, and who at the present time had a well developed case of muscular paralysis, as showing that primary degenerative changes were no doubt very minute, while the secondary changes were qiute extensive. Another case illustrating the opposite type was cited, where the patient suffered from marked hysteria between the date of the collision and the trial, after which he gradually became well. He believed that only in a small minority should we find elementary pathological changes.

The Dividing Line Between Neuroses and Psychoses and the Position of Neurasthenia.—This paper was read by Dr. RICHARD DEWEY, of Wauwatosa, Wis., who discussed at some length the question of a dividing line between neuroses and psychoses, and stated that if there was such a line, insanity was to be found on both sides thereof. He discussed fully the meaning and use of the term insanity, and believed psychoses to be a preferable term thereto, following this by remarks on the proposition to treat neurasthenia as a psychosis and the classification recently proposed by Charles L. Dana.

The Present Campaign Against Insanity.—This paper was read by Dr. W. J. HERDMAN, of Ann Arbor, Mich., in which he considered the various forms of the disease and prospects for the cure thereof, and the ætiology of the condition. He then reviewed the work that had been done in the United States and other countries for the study and treatment of the condition, consisting in some instances of special hospitals, in others of special wards, where the pathologists, clinicians, and laboratory workers could combine their efforts, particular mention being made of the work in New York, Scotland, and Michigan. He believed that the field of experimental pathology had much promise in it, but that the comparison of the mental status of the insane with that of the healthy person was the surest approach to the solution of the problem.

Dr. SEARCY, of Alabama, believed the term psychoses to be much preferable to lunacy, insanity, non compos mentis, etc., particularly in view of the fact that in the courts of law alone lay the power to declare a man legally insane. He then classified the psychoses into the defective type, such as the manias, melancholias, and phobias, and the erratic type, such as the neurasthenias, hysterias, paranoias, moral delinquencies, and moral perversities; and the drink and drug habits.

Dementia Præcox was the subject of a paper read by Dr. F. X. DERCUM, of Philadelphia, in which he stated that even the early writers had recognized the fact that some of the forms were not of the congenital type. He then went into considerable detail of the literature on the subject, and stated that permanent mental loss did not always obtain in dementia praæcox, if recovery took place, which was among the objections cited as to the use of the term, the author preferring the term insanity of adolescence. The points of similarity and differentiation between hebephrenia, katatonia, and dementia paranoides were given in detail, followed by a study of the sequelæ of the phases and consideration of the prognosis in the various forms.

Dr. F. W. LANGDON, of Cincinnati, Ohio, stated that undoubtedly there were many cases which did not develop until thirty, forty, or even fifty years of age, and in these, of course, the term was inappropriate, unless the inception could be traced back to earlier years. This objection he felt would also be open to the term proposed by the author.

Dr. F. X. DERCUM, in closing, stated that he did not believe the earlier cases should be classified with the older ones, as they formed a distinct group by themselves.

The Treatment of Aphasia by Training, With Some Remarks on the Reeducation of the Adult Brain, was the title of a paper read by Dr. CHARLES K. MILLS, of Philadelphia, in which he considered at considerable length, the cerebral zone of speech, the areas and centres for concrete memories and abstract concepts, their relation to cerebral education, and the various psychic centres and their subdivisions. He then considered the varieties of aphasia and the various methods of training, such as the repetition of letters, words, and phrases, Wyllie's psychologic alphabet (which, he stated, was insufficient in some cases of pure motor agraphia), grammatical training and the relation of writing to speech, together with a résumé of his personal views in regard to a motor graphic centre. He then exhibited two cases, the first of which was a total motor aphasic, associated with Jacksonian epilepsy, who could only say his own name, the diagnosis being lesions involving the third frontal convolution and adjoining region, which under a careful system of training had greatly improved. The other case was that of a man about forty years of age, who about seven months ago had had an epileptiform attack followed by aphasic symptoms, from which he partially recovered, and later had an intensification of the attack, at which time he was almost completely word, letter, and number blind. This patient had also shown considerable improvement under treatment. He stated that in his opinion the sensory aphasics improved most rapidly.

Dr. T. H. WEISENBURG, of Philadelphia, then read a résumé of the literature on this subject.

Dr. CHARLES W. BURR, of Philadelphia, believed that the method to be pursued should be the same as was used in the education of children, such as showing them an object, calling the object by a certain name, writing down the name, and letting them draw a picture of it. He did not approve of the system of having them repeat monosyllables. As so many of the cases were due to specific disease, he felt that unless syphilis could be excluded, it would be difficult to say just how much of the improvement was due to training and how much to the absorption of the specific disease.

Dr. W. G. SPILLER considered that there were four elements bearing particularly upon the prognosis. 1, age; 2, nature of the lesion; 3, extent of the lesion; and 4, intelligence of the patient. Traumatic lesions, he believed, were more hopeful than those produced by hæmorrhage into the brain. He reported two cases due to trauma, one resulting in word deafness, in which by operation a large cyst was removed from the temporal lobe on the left side, and the man by his own efforts recovered a great deal from this condition.

Dr. PUNTON, of Kansas City, Mo., referred to the scarcity of literature on this subject, and also raised the question as to whether the efforts put forth by the patient would have a tendency to bring on a second attack in those cases due to embolism and thrombosis.

Dr. F. W. LANGDON, of Cincinnati, Ohio, felt that possibly the entire improvement could not be attributed to any one factor, either education, medication, or the action of Nature. He then referred to the fact that the third frontal convolution was not a motor speech centre, but rather a language construction centre, and that the real motor centre was the lower Rolandic region. He did not, however, believe that grammar had anything to do with the acquirement or reacquirement of language by a patient with motor aphasia.

Dr. W. J. HERDMAN, of Ann Arbor, Mich., felt that the degree of recovery depended upon the capacity remaining after the organic disease, traumatism, etc. He believed that if there was any capacity remaining it was for the nouns and verbs, or main parts of a sentence, and that the adjectives, adverbs, prepositions, etc., must be added by education.

Dr. C. HERSMANN, of Pittsburgh, Pa., felt that if the patient was taught construction at the same time that he was taught words, he would advance much more rapidly.

Dr. CHARLES K. MILLS, in closing, stated that the education of an aphasic could not be exactly the same as was indicated for a child, for the reason that he had an advantage over the child, in that his brain was once thoroughly organized, and a disadvantage in the fact that the child in its education started out with a potential mechanism of speech in the cerebrum, unattacked by disease. He also reviewed the various foci of lesions causing the condition and the prognosis in the different cases.

Tuberculosis of the Nervous System.—This paper was read by Dr. D. J. MCCARTHY, of Philadelphia, in which he gave a résumé of the work done at the Phipps Institute, and the results of a study of 78 autopsies and 126 cases clinically considered. He considered, first, the organic lesions and their various subdivisions, and secondly, functional disorders, due either to toxines generated by the tuberculous process or to mixed infection, the clinical and pathological findings being set forth in detail.

Dr. CHARLES K. MILLS commented on the value of work of this character and stated that it was not the nature of the lesion which was present which determined the symptomatology, but its localization.

Dr. F. X. DERCUM referred to tuberculous insanity, melancholia, mania, and the symptomatology of these conditions, also the tuberculous disease of the nervous system simulating paresis.

Dr. DAVID I. WOLFSTEIN referred to tuberculosis as a cause for meningeal encephalia, and believed that tuberculosis produced not only the nodular lesions, but also a more diffused form of softening, and that the mental disturbance depended largely upon the extensives of this diffusion.

Dr. W. G. SPILLER, of Philadelphia, referred to a variety of tuberculosis of the nervous system producing symptoms simulating brain tumor, a case of which had come under his observation, and which, when operation was performed, proved to be tuberculosis and not cerebral tumor.

Dr. MCCARTHY, in closing, remarked that tuberculosis very often extended into the meninges and produced hæmorrhagic encephalitis.

SECTION ON OBSTETRICS AND DISEASES OF WOMEN.

Second Day, Wednesday, June 8, 1904.

(*Continued from Vol. lxxix, page 1221.*)

The Invasion of Carcinoma Uteri Into the Surrounding Tissues.—Dr. JOHN A. SAMPSON, of Baltimore, read this paper. He said that recurrence so frequently followed an operation for cancer of the cervix that it was evident involvement of the surrounding tissues was present in a great maj ority of cases at the time the hysterectomy was performed. A careful study of the anatomical relations between the cervix and neighboring parts demonstrated that these relations varied in accordance with the position of the uterus in the pelvis and that the disease did not necessarily have to extend far anteriorly in order to involve the bladder or laterally to reach or extend beyond the ureters. He had carefully studied microscopically the specimens obtained from patients upon whom very radical operations had been performed, and he was strongly impressed by the necessity in all cases of an early diagnosis and of wide excision of the primary growth.

The Primary, Intermediate and Secondary Repair of the Anterior Vaginal Wall After Labor.—This paper was read by Dr. B. C. Hirst, of Philadelphia. He laid stress on the importance of examining all women after delivery, in order to detect injuries to the urogenital diaphragm in the anterior wall of the vagina and the urogenital muscle and its fascia. He mentioned the proper method of establishing the diagnosis and then, in considerable detail, described an operation devised by him to correct the defect.

The Ætiology and Pathology of Cystocele, With a New Operation for Its Relief.—Dr. J. Riddle Goffe, of New York, read this paper. He gave a brief review of the history of operations for the relief of cystocele. Simon simply built up a strong perineal body, which proved only a temporary barrier against the protruding mass. Sims and Emmet denuded mucous surfaces on the face of the cystocele and stitched the raw surfaces together. About the same time the Stoltz operation came into favor, because of its simplicity. None of these operations accomplished anything more than temporary relief. The principle of a cystocele was the same as that of hernia. It would seem quite as rational a procedure and give promise of quite as satisfactory results, to denude the skin over an inguinal hernia and stitch its edges together, as to expect to cure a cystocele by simply denuding the vaginal mucous membrane, tucking in the prolapsed bladder, and stitching together the denuded surface. The fascia was the sustaining tissue, and if the cystocele was characterized by a hernial protrusion, permanent relief could only be attained by cutting out the sac of atrophied fascia, and bringing together the pillars of bare strong fascia at its margins. But when this had been accomplished unless something was done to smooth out the base of the bladder wall, folds and wrinkles and pockets were produced which retained the urine, where it underwent decomposition, and led to cystitis, calculus, ureteritis, pyelitis, etc. This excess of bladder wall was disposed of in the proposed operation in the following manner: Anterior vaginal section was performed and the bladder dissected wide and free from the vagina and the uterus. The vesicouterine pouch was entered and the peritonæum torn across the face of the uterus and well out on to the broad ligaments. The bladder, being then freely movable inside its fascial sheath, was rotated upon its transverse diameter, and its base spread out upon and stitched to, the anterior face of the uterus and broad ligaments. This caused the base of the bladder to take a nearly straight line from the symphysis pubis to the cervix uteri. The fascia and mucous membrane were then trimmed to fit snugly this new position of the bladder and stitched with interrupted catgut sutures. Eight cases were reported in which the procedure had been applied with eminently satisfactory results.

Lacerations of the Pelvic Floor: The Principles Involved in Their Primary and Secondary Repair.—This paper was read by Dr. J. H. Burtenshaw, of New York. He said that the lack of success attending the primary operation was to be attributed in practically every case to one of three causes, or to a combination of all: first, to failure on the part of the operator to appreciate the extent and direction of the tear in the levator ani muscles and fasciæ; second, to failure to approximate the edges of the same; and third, to an overstretching of the muscles of the pelvic floor, which could not be overcome or modified except by denudation and suturing of the vaginal wall, an unjustifiable procedure at this stage of the puerperium. An important complicating factor in the ultimate prognosis in cases in which the certainty of separation could be eliminated was that of overdistention or overstretching, for it was impossible to determine if the paralysis had passed the point at which it would not be amenable to natural correction as involution progressed. Theoretically, the primary operation should more nearly restore the pelvic floor to its original condition than an operation performed months or years subsequently, and for the reason that at that time the edges of the levator and fasciæ were raw, and if approximated by properly introduced sutures, would unite. Failure, existing pathological conditions being recognized, was probably due, in the majority of cases, to incorrect suturing. He maintained that, if the factor of irremediable overdistention could be eliminated, deep, sweeping suturing would reduce the failures to a very small per cent.

The great number of technics that have been devised to correct prolapse of the posterior vaginal wall and relaxation of the muscles at the outlet indicated the important place such correction held in the minds of gynæcologists, yet he had long been convinced that there existed a pronounced misconception as to what was really accomplished by the several procedures. In nine out of ten of the modern operations of colpoperineorrhaphy the mucous membrane covering a certain area was removed and sutures were introduced in such a way as to approximate the raw surfaces; in other words, a portion of the muscular wall of the vagina was freshened and backed up against itself, in which position the surfaces united, the slack of the wall was taken up, the weakened perineal body was reinforced, and the gaping vaginal orifice was reduced to its normal size. While such an operation met all indications, he held that no procedure which did not provide for the isolation, freshening, and individual suturing of the separated levators and fascia would restore the woman to her former normal condition. But, as every surgeon knew, this technics was impossible of accomplishment in a great majority of cases. While the Emmet operation had been accepted almost universally as the best of its kind, it really accomplished no more than many others, for the reason that the separated edges of the muscles and fascia would be held together only as long as the sutures were in place.

No one would deny that the proper method of closing a wound was that which took into consideration the original line or lines of cleavage. When the accident occurred the distention of the vaginal canal was lateral, the muscles and fasciæ being drawn apart by traction exerted from the sides; therefore, it being granted that present day colpoperineorrhaphy was a superficial operation, the anatomical and pathological conditions present led one to suppose that a triangular denudation and side-to-side suturing would most nearly meet the indications. The speaker believed that the Hegar operation, in which the denudation was carried well beyond the crest of the rectocele and the sutures were sweepingly inserted across the vagina, would nearly always prove the most satisfactory. In all cases the denudation should extend to the mucocutaneous junction. Failure to obtain good results was to be attributed to improper denudation, incorrect suturing, or to low vitality of the patient.

Treatment of Complete Uterine and Vaginal Prolapse.—This contribution was by Dr. FREDERICK HOLME WIGGIN, of New York. He first called attention to the fact that the condition was ordinarily that of a reducible hernia through the pelvic floor, the sac being the inverted vagina and its contents the uterus, tubes, ovaries, bladder, rectum, and a large portion of the small intestine. He pointed out that the chief ætiological factor in the production of the disorder was the separation of the tendons of the muscles forming the pelvic floor and the consequent rectocele, usually the result of injury arising from parturition. The indications for treatment were the reduction of the hernia and the obliteration of the sac, and in his experience these were best met by first returning the contents of the sac to the peritoneal cavity and retaining them there by tampons moistened in glycozone and by placing the patient in a bed in which the foot was elevated for a few days or until any ulcerated surfaces on the vaginal wall had healed. He then performed laparotomy, the patient being in the Trendelenberg position, and after the intestinal adhesions had been broken up, the uterus was seized with bullet forceps and drawn well up and a purse string suture of kangaroo tendon was passed through the uterine tissue at the level of the point of attachment of the round ligament and carried down the broad ligament to the pelvic brim and then up again, the needle emerging at the place of entrance. A similar suture was passed on the opposite side and both were then drawn tight and tied. After the abdominal wound had been closed and sealed with collodion, repair of the damaged pelvic floor and reduction in size of the anterior vaginal wall were accomplished. The entire operative procedure ordinarily required not more than forty minutes.

He stated that, in his experience, partial or entire removal of the uterus in these cases was not only unnecessary, but harmful, as it tended to prolong the operation and caused increased loss of blood without corresponding benefit, the uterus itself not being at fault. Elderly persons bore operation well, provided it was not too prolonged and did not involve much hæmorrhage. He had operated according to the technics detailed on many women ranging in age from 60 to 83 years, all of whom had made good recoveries.

Letter to the Editor.

BLOOD PRESSURE AND THE SPHYGMOMANOMETER.

1530 LOCUST STREET,
PHILADELPHIA, *June* 20, 1904.

To the Editor,

Sir: In an article which appeared in one of the late numbers of your *Journal*, by Dr. Louis F. Bishop, entitled Constitutional Low Arterial Tension, some interesting points have been brought out. The author does not state, however, whether these observations on the state of the arterial tension were corroborated by the use of the sphygmomanometer, or simply gauged by the tactile sense. I have done considerable work on blood pressure and have often been struck by the fallibility of the latter method when compared to actual measurements. I have observed patients exhibiting similar symptoms, and benefited by like procedures as these that Dr. Bishop mentions, in whom the conditions were apparently due to a physiological basis almost the reverse of that which he describes.

I refer to that class of patients who have small arteries, a nervous temperament, and a highly strung vasomotor system, among whom the capillaries are usually in a state of contraction and in whom the arterial pressure is above or at least not below the normal. The individuals to whom I refer feel better in hot weather, when by reason of peripheral dilatation the arterial pressure is lowered, and are benefited by very hot baths, vigorous exercise, and other measures which bring about vasomotor relaxation.

GEORGE N. NORRIS.

Book Notices.

Elements of General Radiotherapy for Practitioners. By Dr. LEOPOLD FREUND, Vienna. Translated by G. H. LANCASHIRE, M. D., Brux., M. R. C. S., Eng., L. R. C. P., Lond., Assistant Physician to the Manchester and Salford Hospital for Skin Diseases. With 107 Illustrations in the Text and One Frontispiece. New York: Rebman Company. London: Rebman, Limited, 1904.

This work aims to give a complete presentation of the subjects of high frequency currents, the x ray. Becquerel rays, and heat and light rays as applied to the treatment of disease. Of the one hundred and seven illustrations, almost all are of the various apparatus for therapeutic use, and a few are of some of the diseases treated, but there are no radiographs or pictures of radiographic apparatus. The radiographer, however, will find much of value in the nearly two hundred pages devoted to the elements of electricity and to the construction and operation of the many different kinds of interrupters, induction coils, condensers, static electrical machines, and x ray tubes. The radiotherapeutist will find in the book a detailed theoretical and practical description of the apparatus and the methods of application of all forms of radiotherapy. There are scattered through the book abstracts of all the experimental and practical work reported by practitioners everywhere, with many valuable original observations and conclusions by the author.

In some particulars the methods recommended differ from those familiar here, as, for example, in x ray treatment, where the author recommends frequent applications at close range, with the idea of exciting a considerable reaction in two weeks, then stopping altogether for about three weeks, and if necessary, beginning again. The conditions in which Röntgen therapy is stated to be of value are grouped under the headings: 1. Diseases of the Hairs and Hairy Regions (Favus, Sycosis Vulgaris, and Folliculitis Barbæ, Trichophytosis, Blepharitis, Tricorrhexis Nodósa, Alopecia Areata, and Hypertrichosis). 2. Ulcerations and Skin Diseases, Resulting in Ulcerations (Lupus Vulgaris, Epithelioma, Ulcus Rodens, Mycosis Fungoides, Lepra, Sarcoma of the Skin, and Various Chronic Ulcerations). 3. Acute and Chronic Exudative Dermatoses and Granulation Formations (Chronic and Acute Eczema, Psoriasis, Prurigo, Lupus Erythematosus, Acne Vulgaris, Rosacea, Furunculosis). 4. Nævus. 5. Some Internal Disorders. In the last group the author does not apparently regard the evidence of a cure as conclusive.

The typical form of apparatus for applying high frequency currents is that of d'Arsonval, in which there are an x ray coil (a powerful Ruhmkorff coil in which a thousand or more secondary currents of high voltage are excited each minute by the passage of a hundred and ten volts current through the primary coil, the interruptions in the primary current being produced either by electrolysis or by various mechanical devices), a pair of large leyden jars, to the inner coats of which the poles of the x ray coil are connected, and to the outer coats of which are connected the two ends of are large, loose spiral of uninsulated wire, called a solenoid. An enclosed spark gap between the inner coats of the two leyden jars permits of a very frequent discharge of the accumulated electricity. Somewhat similarly, a very frequent discharge from the outer coats passes through the patient. From the outer coat of one jar an insulated wire passes to a brass handle, which is held by the patient, and from the outer coat of the other jar an insulated wire passes to a vacuum tube, which is applied to the skin or mucous membrane. When the apparatus is in operation, there is no sensation from the brass handle, but there is a sensation of warmth, with a production of violet and ultraviolet light and of scarcely perceptible sparks and of ozone by the current passing through the vacuum electrode.

The book gives the fullest details of the various high frequency apparatuses of Tesla, d'Arsonval, Oudin, and others; and an account of the physiological effects of such discharges. The author recommends the employment of high frequency currents for: 1. The production of analgesia in minor operations and the relief of superficial neuralgias. 2. Those diseases which are due to defective tissue changes; diabetes mellitus, gout, rheumatism, and obesity. 3. "Parasitic diseases" (tuberculosis). 4. Diseases of the nervous system. 5. Various local diseases of the skin and mucous membranes.

A dozen pages are devoted to the subject of the Becquerel rays and radium. One hundred and sixty pages are given to the consideration of treatment with heat and light rays, under the headings: 1. Elements of Photophysics. 2. The Effect of Light on Bacteria. 3. The Effect of Light on Higher Organisms (Animals, including Man). 4. The Therapeutic Use of Light. 5. Treatment with Sunlight, Sun Baths, Air and Light Baths, Chromotherapy, Concentrated Sunlight. 6. Treatment with Artificial Sources of Light (Electric Incandescent Light, Electric Arc Light either concentrated [Finsen] or non-concentrated). 7. The Therapeutic Use of Other Sources of Light. Among the conditions mentioned as benefited by incandescent electric light baths are those in which copious perspiration is desired with the least possible strain on the heart; such as obesity, diabetes, gout, rheumatic affections of the joints and muscles, nerve complaints (sciatica, neuralgia, neurasthenia, and hysteria), anæmia and chlorosis, chronic poisoning (metallic poisoning, syphilis), chronic exudation and effusions, bronchial asthma and bronchitis, dropsy, ascites and œdema after nephritis, hypertrophic and fatty heart, eye complaints (keratitis parenchymatosa, iridocyclitis, and chorioiditis), and as a tonic and prophylactic against disease.

Of course, concentrated sunlight or concentrated electric arc light as applied by Finsen is to some extent an ultraviolet ray treatment, and its great field is in the treatment of lupus. The author's views as to the relative value of the Finsen and Röntgen treatments of lupus and as to the merits of these as compared with those of any of the previously known methods, are not the least valuable part of the book. The volume is a handsome one, and the translation into English has been done exceedingly well.

The Lymphatics. General Anatomy of the Lymphatics. By G. Delamere. Special Study of the Lymphatics in Different Parts of the Body, by P. Poirier, Professeur d'Anatomie à la Faculté de médecine de Paris, Chirurgien des hôpitaux, and B. Cuneo, Professeur agrégé à la Faculté de médecine de Paris. Authorized English Edition, Translated and Edited by Cecil H. Leaf, M. A., M. B. (Cantab.), F. R. C. S. (Eng.), Assistant Surgeon in the Cancer Hospital, etc. With 117 Illustrations and Diagrams. Chicago: W. T. Keener & Co., 1904. Pp. xii-301. (Price, $5.00.)

It is very difficult to give a detailed review of this book, as it is a perfect encyclopædia upon the subject. It is divided into two parts, the first of which, by Delamere, deals with the lymphatic system, while the second part is devoted to special study of the lymphatics in different parts of the body. The first part is subdivided into chapters upon the lymph, the leucocytes, the lymphatic vessels, and the lymphatic glands, which are most carefully considered, with numerous illustrations and with a complete bibliography appended. The second part is divided into chapters which are devoted to the various sections of the body. Gerota's method of injection (with Prussian blue), which was advocated by Poirier in 1892, has been freely used by the authors, and thanks to them our knowledge of the lymphatics of certain regions of the body has been greatly increased. The lymphatics throughout the entire body are taken up, and numerous illustrations, including many colored ones, are found in this part.

BOOK AND MAGAZINE NOTES.

The *Reader* Magazine for June contains a clever study of the peculiar psychology of Herbert Spencer, by Israel Zangwill. The writer speaks, however, of the breakdown of the Spencerian system, and asserts that its ideas have faded and its theories grown rusty. This is certainly news to scientific thinkers.

McClure's Magazine for July has a tragedy, by Miss Myra Kelly, *The Land of Heart's Desire*. The tragic climax, we hasten to state, is not very heartrending, and an abundance of this clever young author's brilliant comedy prevails throughout the story.

Clara Morris, in the same magazine, gives a sensational account of her treatment in Paris by the almost forgotten "moxa." Her story possesses humor, which cannot be said of the classic account of the instrument in Eugene Sue's *Wandering Jew*. A portrait of Dr. Fordyce Barker helps to illustrate the story, and that gentleman plays a heroic rôle therein; he is clad in his academic robes in the portrait, but our readers will understand the improbability of his constant appearance thus appareled.

BOOKS, PAMPHLETS, ETC., RECEIVED.

What We Owe to Experiments on Animals. By STEPHEN PAGET. London: The Scientific Press, Ltd., 1904. [Price, 1s. 6d. net.]

The Case Against Antivivisection. By STEPHEN PAGET. London: The Scientific Press, Ltd. [Price, 2 shillings net.]

Theorie und Praxis der Augengläser. Von Dr. E. H. OPPENHEIMER, Augenarzt in Berlin. Mit 181 Textabbildungen. Berlin: August Hirschwald, 1904.

Official News.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the period from June 26 to July 1, 1904:

Smallpox—United States.

Place.	Date.	Cases.	Deaths.
California—San Francisco	June 12-19	1	
Dist. of Columbia—Washington	June 11-18	4	
Florida—At large	June 18-25	7	1
Georgia—Macon	June 18-25	1	
Illinois—Chicago	June 18-25	1	
Illinois—Danville	June 18-25	1	
Louisiana—New Orleans	June 18-25	5 3 imported.	
Maryland—Baltimore	June 18-25	2	
Massachusetts—Lawrence	June 18-25	1	
Michigan—Detroit	June 18-25	3	
Missouri—St. Louis	June 18-25	9	
Nebraska—Omaha	June 18-25	2	
Nebraska—South Omaha	June 18-25	1 imported	
New Hampshire—Manchester	June 18-25	6	
New Jersey—Jersey City	June 12-19	2 1 imported from Baltimore.	
New York—Buffalo	June 18-25	1	
New York—New York	June 18-25	1	
New York—Niagara Falls	June 18-25	1	
Ohio—Toledo	June 18-25	2 imported	
Pennsylvania—Altoona	June 18-25	1 imported	
Pennsylvania—Johnstown	June 18-25	1 3 cases in suburban districts.	
Pennsylvania—Philadelphia	June 18-25	7	1
Pennsylvania—Pittsburgh	June 18-25	1	
Tennessee—Memphis	June 18-25	8	
Washington—Tacoma	June 13-20	1	
Wisconsin—Milwaukee	June 18-25	6	
Smallpox—Foreign.			
Belgium—Brussels	June 4-11		1
China—Hongkong	May 14-28	5	2
France—Marseilles	May 1-31		4
France—Paris	June 4-11	10	
Great Britain—Glasgow	June 10-17	20	3
Great Britain—Leeds	June 11-18	3	
Great Britain—London	June 4-11	21	
Gt. Britain—Newcastle-on-Tyne	June 4-11	8	1
Great Britain—Nottingham	June 4-11	3	
Great Britain—Sheffield	May 28-June 11	3	
India—Bombay	May 24-31		16
Italy—Palermo	June 4-11	1	
Java—Batavia	May 7-14	8	
Mexico—Mexico	June 5-12	5	1
Russia—Moscow	May 28-June 4	11	4
Russia—Odessa	June 8-16	2	
Russia—St. Petersburg	May 28-June 14	15	3
Russia—Warsaw	May 21-28		23
Spain—Cadiz	May 1-31		1
Turkey—Constantinople	June 5-12		4
Yellow Fever.			
Mexico—Tampico	June 11-18	1	
Mexico—Vera Cruz	June 26	1 imported from Progreso.	
Plague—Insular.			
Hawaii—Honolulu	June 21	1	
Plague—Foreign.			
China—Amoy	May 31	Increasing	
China—Hongkong	May 14-28		60
Formosa	May 14-28	596	489
India—Bombay	May 14-31		109
India—Calcutta	May 21-28		90
India—Karachi	May 22-29		53
Cholera.			
China—Hongkong	May 14-28	13	12
India—Calcutta	May 21-28		51

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending July 2, 1904:

BORDEN, WILLIAM C., Major and Surgeon. Granted leave of absence for one month and five days.

BRECHEMIN, LOUIS, JR., First Lieutenant and Assistant Surgeon. On duty at Fort Baker, Cal., ordered to report to the Commanding Officer, Company of Instruction, Hospital Corps No. 2, Fort McDowell, Cal., for duty during the manœuvres in the Departments of California and the Columbia, and upon completion of same to return to his station.

CHURCH, JAMES R., Captain and Assistant Surgeon. Granted leave of absence for thirty days on account of sickness, with permission to apply for two months' extension.

FARR, CHARLES W., First Lieutenant and Assistant Surgeon. On duty at Fort Mason, Cal., will report to the Commanding Officer, Company of Instruction, Hospital Corps No. 2, Fort McDowell, Cal., for duty during the manœuvres in the Departments of California and the Columbia, and upon completion of same will return to his station.

GANDY, CHARLES M., Major and Surgeon. Detailed as examiner of recruits at Detroit, Mich., in addition to his duties at Fort Wayne, Mich.

GEER, CHARLES C., First Lieutenant and Assistant Surgeon. Granted leave of absence for thirty days, with permission to apply for an extension of thirty days.

GRUBBS, ROBERT B., First Lieutenant and Assistant Surgeon. Ordered to proceed from Fort Wright, Wash., to Camp Nesgually, American Lake, Wash., for duty during manœuvres.

HARRIS, H. S. T., Major and Surgeon. Designated for duty as Chief Surgeon of the Second Provisional Division at manœuvres to be held at Manassas, Va.

KILBOURNE, HENRY S., Lieutenant Colonel and Deputy Surgeon General. Relieved from duty in the Division of the Philippines, and ordered to proceed to San Francisco. Upon arrival at San Francisco, ordered to report by telegraph to the Military Secretary for further orders.

MABEE, JAMES I., First Lieutenant and Assistant Surgeon. Ordered to proceed from Fort Casey, Wash., to American Lake, Wash., for duty during manœuvres.

SHAW, HENRY A., Major and Surgeon. Assignment to duty as Chief Surgeon of the Second Provisional Division at Army Manœuvres, Manassas, Va., revoked.

SMART, CHARLES, Colonel and Assistant Surgeon General. Relieved from duty in the Division of the Philippines, ordered to proceed to San Francisco, and upon arrival there to report by telegraph to the Military Secretary, War Department, for orders.

STARK, ALEXANDER N., Captain and Assistant Surgeon. Relieved from further duty in Washington, D. C., as attending surgeon, and ordered to report in person to Rear Admiral John C. Walker, United States Navy, Chairman of the Isthmian Canal Commission, for duty on commission.

SWEAZEY, VERGE E., First Lieutenant and Assistant Surgeon. Relieved from further duty in the Division of the Philippines, and ordered to temporary duty at the United States Army General Hospital, Presidio of San Francisco, Cal.

WEBBER, HENRY A., Captain and Assistant Surgeon. Left Fort Walla Walla, Wash., on detached duty *en route* to American Lake, Wash.

WOODRUFF, CHARLES E., Major and Surgeon. Sick leave extended two months.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending July 2, 1904:

ANGWIN, W. A., Assistant Surgeon. Ordered to the Naval Hospital, Mare Island, Cal.

BALCH, A. W., Assistant Surgeon. Ordered to the Naval Museum of Hygiene and Medical School, Washington, D. C.

BELL, W. H., Passed Assistant Surgeon. Detached from the Naval Hospital, Portsmouth, N. H., and ordered to duty with the marine battalion on the Isthmus of Panama.

BIDDLE, S., Surgeon. Ordered to the *Wisconsin* for duty as fleet surgeon.

CAMPBELL, R. A., Acting Assistant Surgeon. Detached from duty with the naval recruiting party No. 1, and ordered home to await orders.

CARPENTER, D. N., Surgeon. Detached from duty with the marine battalion on the Isthmus of Panama and ordered home to await orders.

DEAN, F. W. S., Assistant Surgeon. Ordered to the Naval Station, Olongapo, P. I.

DE BRULER, J. P., Assistant Surgeon. Ordered to the Naval Station, Olongapo, P. I.

DYKES, J. R., Assistant Surgeon. Ordered to the *Rainbow*.

GEIGER, A. J., Assistant Surgeon. Ordered to the Naval Hospital, Yokohoma, Japan.

GRIEVE, C. C., Assistant Surgeon. Ordered to the Naval Station, Cavite, P. I.

HOEN, W. S., Assistant Surgeon. Ordered to the Naval Station, Cavite, P. I.

HUNTINGTON, E. C., Surgeon. Ordered to the Naval Hospital, Portsmouth, N. H.

KITE, I. W., Surgeon. When discharged from treatment at the Naval Hospital, Pensacola, Fla., ordered home and granted sick leave for two months.

MARCOUR, R. O., Assistant Surgeon. Detached from the *Hancock* and ordered home; granted leave for three months, and resignation to be accepted September 27, 1904.

MCCLANNAHAN, R. K., Assistant Surgeon. Ordered to the general hospital, Fort Bayard, N. M., for treatment.

MCCULLOUGH, F. E., Passed Assistant Surgeon. Detached from the *Wisconsin* and ordered home.

MCDONNOLD, P. E., Assistant Surgeon. Detached from the Naval Museum of Hygiene and Medical School, Washington, D. C., and ordered to the Bureau of Medicine and Surgery, Navy Department, Washington, D. C.

MINK, O. J., Assistant Surgeon. Ordered to the Naval Hospital, Philadelphia, Pa.

MORSE, E. T., Pharmacist. Ordered to the Naval Station, Cavite, P. I.

OMAN, C. M., Assistant Surgeon. Detached from the Naval Station, Cavite, and ordered to the *Frolic*.

PLUMMER, R. W., Passed Assistant Surgeon. Detached from the *Bancroft* and ordered to the Naval Hospital, San Juan, P. R.

PORTER, F. E., Assistant Surgeon. Ordered to the Naval Hospital, Norfolk, Va.

RENNIE, W. H., Assistant Surgeon. Ordered to the Naval Station, Cavite, P. I.

RICHARDSON, R. R., Assistant Surgeon. Ordered to the *Wabash*.

SEAMAN, W., Assistant Surgeon. Ordered to the *Wabash*.

SHIFFERT, H. O., Assistant Surgeon. Detached from the *Nashville* and ordered home, to await orders.

SMITH, C. G., Passed Assistant Surgeon. Commissioned a passed assistant surgeon, with the rank of lieutenant, from April 12, 1904.

TAYLOR, E. C., Assistant Surgeon. Detached from the Naval Hospital, San Juan, P. R., and ordered to the *Bancroft*.

VERNER, W. W,, Assistant Surgeon. Ordered to the *Wisconsin*.

Public Health and Marine Hospital Service:

Official List of the Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the Public Health and Marine Hospital Service for the fourteen days ending June 23, 1904:

AMESSE, J. W., Assistant Surgeon. Detailed to represent service at meeting of Washington State Medical Association at Seattle, Wash., July 12th to 14th.

BAHRENBURG, L. P. H., Assistant Surgeon. To proceed to Evansville, Ind., and assume temporary charge during the absence on leave of the Medical Officer in Command. June 17, 1904. Granted leave of absence for seven days from June 14th under paragraph 191 of the regulations.

BERRY, T. D., Assistant Surgeon. Relieved at Louisville, Ky., and directed to proceed to Laredo, Texas, for duty. June 14, 1904.

BOGGESS, J. S., Assistant Surgeon. To proceed to Washington, D. C., for special temporary duty. June 14, 1904.

BROWN, B. W., Passed Assistant Surgeon. Granted leave of absence for two months from July 1st.

CUMMING, H. S., Passed Assistant Surgeon. Granted leave of absence for twenty-one days from July 1st.

EAGER, J. M., Passed Assistant Surgeon. To proceed to Messina, Italy, for special temporary duty. June 21, 1904.

GASSAWAY, J. M., Surgeon. Detailed as sanitary officer at the Louisiana Purchase Exposition. June 17, 1904.

GOLDSBOROUGH, B. W., Acting Assistant Surgeon. Leave of absence for four days from June 7, 1904, granted Acting Assistant Surgeon Goldsborough by Bureau letter of June 10th, revoked. June 15, 1904.

HOLT, E. M., Pharmacist. Granted leave of absence for eleven days from July 5th.

HOLT, J. M., Assistant Surgeon. Granted leave of absence for one month from June 25th. Granted leave of absence for seven days from June 17, 1904, under paragraph 191 of the regulations.

IRWIN, FAIRFAX, Surgeon. Granted leave of absence, on account of sickness, for seven days. June 16, 1904.

LAGRANGE, J. V., Pharmacist. Granted leave of absence for seven days from June 14, 1904, under paragraph 210 of the regulations.

MACKALL, B. MCV., Acting Assistant Surgeon. Granted leave of absence for five days from June 16, 1904, under paragraph 210 of the regulations.

NYDEGGER, J. A., Passed Assistant Surgeon. Department letter of June 6, 1904, granting Passed Assistant Surgeon Nydegger extension of leave of absence, on account of sickness, for five days from June 5th, revoked. June 15, 1904. Granted leave of absence for five days from June 5th. June 7, 1904.

PETTYJOHN, J., Assistant Surgeon. Relieved at Immigration Depot, New York, and directed to proceed to Fort Stanton, N. M., and report to Medical Officer in Command for duty and assignment to quarters. June 11, 1904.

PORTER, J. Y., Sanitary Inspector. To proceed to Cumberland Sound Quarantine, Florida, as inspector. June 10, 1904.

RICHARDSON, T. F., Passed Assistant Surgeon. Proceed to Alice, Texas, for special temporary duty. June 9, 1904. To proceed to certain points in Texas for special temporary duty. June 16, 1904.

SAFFORD, M. V., Acting Assistant Surgeon. Granted leave of absence for three days from June 9 1904, under paragraph 210 of the regulations.

SCHERESCHEWSKY, J. W., Assistant Surgeon. Granted leave of absence for one month from June 20th.

SCHUG, F. J., Acting Assistant Surgeon. Granted leave of absence for thirty days from July 1st.

SPRATT, R. D., Assistant Surgeon. Directed to proceed to Louisville, Ky., and report to Medical Officer in Command for temporary duty and assignment to quarters. June 15, 1904.

STUART, A. F., Acting Assistant Surgeon. Granted leave of absence for thirty days from July 1st.

TROTTER, F. E., Assistant Surgeon. To proceed to San Francisco Quarantine and assume temporary charge during the absence, on leave, of the Medical Officer in Command. June 20, 1904.

VAUGHAN, G. T., Assistant Surgeon General. Granted leave of absence for six days from June 13th.

WALERIUS, M., Pharmacist. Granted leave of absence for thirty days from July 15th.

WERTENBAKER, C. P., Surgeon. Granted seven days' leave of absence from June 14, 1904, under paragraph 189 of the regulations.

WETMORE, W. O., Acting Assistant Surgeon. Granted leave of absence for four days from June 15, 1904, under paragraph 210 of the regulations.

WHITE, J. H., Surgeon. Granted leave of absence for fourteen days from July 3rd.

WILLIAMS, L. L., Assistant Surgeon General. Granted leave of absence for one month from July 18th.

Boards Convened.

Board convened to meet at Washington, D. C., June 13, 1904, for the physical examination of an officer of the Revenue Cutter Service and an applicant for appointment. Detail for the board: Assistant Surgeon General L. L. WILLIAMS, chairman. Assistant Surgeon General W. J. PETTUS, recorder.

Board convened to meet at Stapleton, N. Y., June 18, 1904. for the physical examination of an officer of the Revenue Cutter Service. Detail for the board: Passed Assistant Surgeon A. C. SMITH, chairman. Passed Assistant Surgeon J. B. GREENE, recorder.

Board convened to meet at Washington, D. C., June 30, 1904, for the physical examination of an officer of the Revenue Cutter Service. Detail for the board: Assistant Surgeon General G. T. VAUGHAN, chairman. Assistant Surgeon A. J. McLAUGHLIN, recorder.

Board convened to meet at Port Townsend, Wash., July 2, 1904, for the physical examination of an officer of the Revenue Cutter Service. Detail for the board: Passed Assistant Surgeon J. H, OAKLEY, chairman. Passed Assistant Surgeon M. H. FOSTER, recorder.

Appointment.

Dr. EDWARD ERSKINE appointed acting assistant surgeon for duty at Rogers City, Mich., effective June 16, 1904.

Resignation.

Pharmacist C. H. BIERMAN resigned, to take effect June 16, 1904.

Casualty.

Acting Assistant Surgoen H. McD. MARTIN died at Fredericksburg, Va., June 22, 1904.

Official List of the Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the Public Health and Marine Hospital Service for the seven days ending June 30, 1904:

CARRINGTON, P. M., Surgeon. To proceed to certain points on the El Paso & Northeastern Railway for special temporary duty. June 23, 1904.

MOORE, G. P., Acting Assistant Surgeon. Granted leave of absence for seven days from July 3, 1904, under provisions of paragraph 210 of the regulations.

STEUART, G. H., Acting Assistant Surgeon. Granted leave of absence for fourteen days from July 1st.

TRASK, J. W., Assistant Surgeon. Relieved from duty at Fort Stanton, N. M., and directed to proceed to Chicago, Ill., and report to Medical Officer in Command for duty and assignment to quarters. June 28, 1904.

Births, Marriages, and Deaths.

Married.

BREED—THOMSON.—In Lynn, Massachusetts, on Tuesday, June 21st, Dr. Nathaniel P. Breed and Miss Effie Young Thomson.

BROWNING—GOODRICH.—In Chicago, Illinois, on Tuesday, June 21st, Dr. George S. Browning and Miss Myrtle Goodrich.

CRISPELL—BOOTH.—In New York, on Monday, June 20th, Dr. Charles W. Crispell and Mrs. Emma Keith Booth.

FULTON—FLACK.—In Kansas City, Missouri, on Thursday, June 23rd, Dr. James A. Fulton and Miss Rose Flack.

HULSE—GIGNOUX.—In New York, on Thursday, June 23rd, Mr. Frederick Hulse and Dr. Harriet Adèle Gignoux.

LAING—JOHNSON.—In New York, on Wednesday, June 22nd, Dr. William Watson Laing and Miss Amy Grant Johnson.

MANGAN—GILLINGS.—In New York, on Monday, June 20th, Dr. Daniel J. Mangan, Jr., and Miss Anna Gillings.

MOONEY—BLOOMER.—In New York, on Wednesday, June 29th, Dr. Henry Walton Mooney and Miss Sarah Barnes Bloomer.

NOBLE—WALSH.—In San Francisco, California, on Thursday, June 17th, Dr. Albert Noble and Mrs. Marjorie J. Walsh.

WILLIAMS—ROSS.—In Kansas City, Missouri, on Wednesday, June 15th, Dr. Robert A. Williams and Miss Florence L. Ross.

Died.

BRECK.—In Springfield, Massachusetts, on Sunday, June 26th, Dr. Theodore F. Breck, in the sixtieth year of his age.

BROWN.—In Muldoon, Mississippi, on Thursday, June 23rd, Dr. E. T. Brown.

CROW.—In Kansas City, Missouri, on Thursday, June 23rd, Dr. Asbury M. Crow, in the sixty-fourth year of his age.

DOZIER.—In Milledgeville, Georgia, on Saturday, June 25th, Dr. R. T. Dozier.

DUNNING.—In Canton, Mississippi, on Saturday, June 18th, Dr. S. T. Dunning.

FLINT.—In San Juan, California, on Sunday, June 19th, Dr. Thomas Flint, in the eighty-first year of his age.

GOERS.—In Syracuse, N. Y., on Monday, June 27th, Dr. George Ford Goers, in the twenty-ninth year of his age.

GUMPERT.—In Philadelphia, Pennsylvania, on Thursday, June 23rd, Dr. Benjamin B. Gumpert, in the ninetieth year of his age.

HUMPSTON.—In Lacie, Kentucky, on Tuesday, June 28th, Dr. James Humpston, in the eighty-sixth year of his age.

JARRECKI.—In Denver, Colorado, on Thursday, June 30th, Dr. Seymour T. Jarrecki.

KELLY.—In Argentine, Kansas, on Friday, June 24th, Dr. J. J. Kelly, in the sixty-sixth year of his age.

LONGPRÉ.—In Ste. Adèle, Canada, on Sunday, June 19th, Dr. Daniel Longpré.

MARTIN.—In Fredericksburg, Virginia, on Thursday, June 23rd, Dr. H. M. D. Martin.

ROWE.—In Auburn, N. Y., on Sunday, June 19th, Dr. Horace Rowe, in the eighty-fourth year of his age.

WILLIAMS.—At sea, on Friday, May 13th, Dr. Bryan G. Williams, of the Long Island State Hospital.

WOODWARD.—In Glens Falls, N. Y., on Sunday, June 26th, Dr. Charles S. Woodward, in the thirty-sixth year of his age.

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Original Communications.

SOME "LIVER" CASES.*

By J. H. CARSTENS, M. D.,
DETROIT, MICH.

"Your liver is out of order," we used to say, when we really did not know exactly what the trouble was, but this was the truth. There was something the matter with the liver, although we could not differentiate it a third of a century ago so well as we can to-day. Even to-day we have great difficulty and often are not sure about the exact condition. Formerly, all abdominal troubles were referred to the liver, were they intestinal indigestion, autoinfection, constipation, or diarrhœa. It was such a handy thing to say it was "the liver." Calomel, podophyllum, and other cathartics were used, and with a good deal of benefit, as the depletion of the abdominal viscera relieved them and caused a free secretion from the mucous membrane that lubricates the intestinal tract. By flushing out the bowels we expelled the bacterial invasion. By ordinary exercise we increased the circulation of the liver and increased its function. Gradually we were enabled to distinguish between inflammation and congestion of the liver, between plain cirrhosis and malignant growth. We could sometimes diagnosticate gallstones and inflammation of the gallbladder, and in hand with this could differentiate the morbid condition of the various organs in the abdominal cavity. We could distinguish between the disturbances of the bowels and the stomach, of the liver and the intestines, of the spleen and the liver, of the liver and the kidney, and so on; so that any ordinary physician is able at the present time to diagnosticate the case sufficiently to know what organ he is dealing with. However, if he decides that the trouble is in the liver, it is still very difficult in a great many cases to say what the exact condition is, and in some cases it is impossible to make a diagnosis. An operation will often clear up the question, but even after the operation it will be impossible sometimes to make the diagnosis. Only a microscopical examination of the tissues will clear up the question, and even then I have seen microscopists disagree and be in doubt. Nevertheless, at the present time we are able to make a correct diagnosis, and only in a few obscure cases are we obliged to resort to an exploratory operation, in order to clear up the moot question.

Thinking that a few illustrations of the various phases might be interesting, I take pleasure herewith in reporting them.

I have picked out some of the cases in which I have operated during the last year, to illustrate the different cases that may be met with.

Case I. *Gallstones.*—Mrs. D. T., aged fifty-one years; for more than twenty years suffered with dyspepsia and so called acute gastritis. She would have all at once a severe attack of cramps in the stomach, formation of gas, and a great deal of pain. This would continue for a few hours and go on at irregular intervals, weeks and months apart. The attacks would come on during or before eating or after eating, sometimes in the middle of the night or early in the morning. She had been treated by the most eminent specialists in the line of gastrointestinal diseases without avail. She had six children, all grown up, was past the menopause, and otherwise had not been sick. She had never had jaundice or inflammation of the abdomen of any kind. It was to me the clearest case of gallstones I ever saw. I could see the gallbladder full of them, in my mind's eye. The stomach specialist, with all his apparatus and his electric illuminating, failed to see them. She gladly submitted to an operation, November 14, 1902, and I removed about fifty gallstones of various sizes. She made a splendid recovery. During the year since the operation she has not had a single attack, and is the picture of health.

Case II. *Suppurating Gallbladder.*—Mr. W. W., aged twenty-nine years; a baker by trade; has suffered for two years with malaria—that is to say, every week or two, sometimes every month or two, he would be taken with chills and fever. This would last for several days, sometimes several weeks, combined with profuse perspiration and more or less nausea. Gradually, he would pick up a little and then have another attack, and so it would continue all the time. He has taken quinine by the pound and Fowler's solution by the ounce, but these malarial attacks would always return. He has tried physicians by the dozen, and taken patent medicine by the gross. To me it seemed a clear case of sepsis, and on examination I had no trouble in locating it in the gallbladder. He never had jaundice. He went to Harper Hospital and I operated on him on November 27, 1902, draining the gallbladder. The bacteriological examination afterwards showed infection with the *Bacillus coli communis* and the streptococcus. In three weeks the fistula closed and he made a complete recovery. He now has rosy cheeks and never misses a day's work.

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* Read before the Tri-State Medical Society at Elkhart, Ind., December 1, 1903.

CASE III. *Gallstones.*—Mrs. J. J. W., aged forty-two years. Jaundice for eight months. She had taken all the usual remedies, from sodium phosphate to calomel and sweet oil. The pain was not severe, but there was finally a complete obstruction of the gallduct. I made a diagnosis of gallstones with obstruction, and operated on January 28, 1903. The incision oozed and would not stop. The opening in the gallbladder kept on oozing. It was stitched in place, the gallstones removed, and a drainage tube inserted. Still the edges kept on oozing. She vomited a good deal and gradually became weaker; she just faded away and died from debility and heart failure. This gallbladder was not septic. The trouble was produced by reabsorption of bile.

CASE IV. *Drained Gallbladder.*—Mr. J. A., aged sixty-four years. This man had had jaundice for one year. He was dried and shriveled up, and looked like a Chinaman, but for the different form of his face and especially of his eyes. He had taken all the remedies from a to z. He was brought to the hospital at my suggestion and I operated on him on March 14, 1903. I removed several hundred stones and drained the gallbladder. I also found a hard condition of his liver, which evidently was malignant. He made a complete recovery, but six months later he was taken with severe pain and inflammation and again entered the hospital. We watched him and treated him on general principles. The symptoms subsided and he seemed perfectly well and returned home. Of course, the inevitable result of the malignant growth cannot be long delayed, although he has had quite good health for the last few months.

CASE V. *Floating Liver and Kidney.*—Mrs. S. C., aged forty-nine years; had a tumor or growth of some kind. It seemed to get quite large and caused a great deal of distress. She was brought to me from the western part of the State, and on examination I found some growth in the abdomen, which extended from the liver down to the pelvis. It seemed to be connected with the liver, but might be an enlarged kidney. As I had seen such cases before, I suggested an exploratory operation to see what the trouble was and what could be done. I operated on June 20, 1903. I found an enlarged liver, freely movable, which could be shoved up in place, so far as its size would allow. The incision being made on the outside of the right rectus, as I always make it in this kind of cases, I had no trouble in getting the liver in place. I stitched the coronary and broad ligament to the upper end of the incision, about half an inch below the edge of the rib. Before this, however, I had with my knife carefully scraped the outer surface of the liver, and also the anterior wall of the peritonæum, so that adhesion should take place. During this operation I noticed a floating kidney, and having finished my abdominal operation I turned the woman over on her abdomen, and I also fixed the kidney in the usual manner by splitting the capsule. She made a splendid recovery, and I have heard from her within the last ten days and she has been in good health ever since.

CASE VI. *Gallstones, Hernia, and Fibroid.*—Mrs. J. G., aged forty-six years; mother of five children. She had been in fair health until two years ago, when she was taken with some female trouble and falling of the womb. Being in the northern part of the State visiting her sister, the family doctor of the latter was called in to treat an attack of pain in the abdomen. He diagnosticated inflammation of the ovaries and suggested an operation, to which she submitted. Both ovaries were removed and the uterus ventrofixated. Evidently on account of ignorance of asepsis there was a great deal of suppuration, and the patient was on the point of death. Counsel was got from Chicago, but she finally recovered with a large hernia. However, she was not well and began to have pain, and during the last year she had a number of attacks of inflammation in the abdomen, so called peritonitis. A tumor developed, which could be felt through the ventral hernia. This increased in size, and she was finally brought to me. I made a diagnosis of a fibroid of the fixed uterus, and gallstones. She agreed to go to the hospital in a few days, but was taken with a severe attack of inflammation, temperature running up to 103° F., so that it had to be deferred. When the acute symptoms had somewhat subsided, she was brought to the hospital on a stretcher, still with a temperature varying from 101° to 102°. The great tenderness prevented examination, but after a few days it subsided and a swelling could be noticed from the McBurney's point upward to the liver. We prepared her and operated on October 5, 1903. I found a large fibroid, two inches and a half by four inches in diameter, in the fundus of the uterus, which I enucleated, and then looked for the appendix and found it adherent to a mass above, and removed it. It was very long and thin, but was evidently not the cause of the trouble. Through the mass above I could feel gallstones, so I sewed up the hernia. I then made a very small opening right over the place where I knew the gallbladder to be. With my finger I could feel that the gallbladder was very much thickened and covered with omentum and adherent to the stomach and the surrounding tissues. I separated some of the adhesions and got hold of the gallbladder with my forceps, and pulled it out of the small opening I had made.

With a few stitches of dried sterilized catgut I attached it to the peritonæum and the muscles. I then opened the gallbladder, which poured out a thick fluid like glycerin, about three or four ounces. Then came the same quantity of pus with *Bacillus coli communis*, without any mixed infection. I introduced my finger and felt a large gallstone, which I got hold of with forceps and removed with difficulty, on account of the small opening. It was one inch and a half in length and one inch in diameter, and was a mulberry calculus. I introduced my finger again and felt another one, which was over three fourths of an inch in diameter. This also I removed, and after it there poured forth pure bile, such as we generally meet. The gallbladder was cleaned and a tube inserted, but no sutures were used at all, as the opening was very small and I wanted good drainage. The wound was dressed daily—that is, I simply washed it on the outside with boric acid. The gallbladder was not washed out or irrigated, simply a rubber tube was left in to prevent a too early closure. The tube was removed in two weeks, and in another week the fistulous opening closed. The abdominal incision below, of course, had healed up, and in less than four weeks the woman returned home, better, she said, than she ever felt yet.

I have selected these six cases, as each one teaches a different lesson in the diseases of the liver.

Case I is one of those beautiful cases which show as clear as the noon day sun that such a thing as acute gastritis does really not exist. I have never seen a case since I have learned properly to interpret the symptoms. When I was young and imbued with the wonderful wisdom of the men who wrote the books on the practice of medicine, I used to see those cases every little while, but since I have cut loose and have paddled my own canoe, I can see how often I made mistakes. That a sudden attack with severe pain and no elevation of temperature, coming on at irregular intervals, often at night when the patient is tranquilly sleeping and when the stomach is empty and could not become inflamed, should be called acute gastritis, I cannot see. An acute inflammation of the stomach really could not occur, and the only thing that will produce those symptoms are gallstones. That is the one symptom that has always induced me to propose an exploratory operation, and I have never failed to find gallstones.

Case II clearly shows that such kind of malarial toxæmia does not exist, not even here, in Indiana, and the valley of the Wabash. It might have existed fifty years ago, before the country was drained, but to-day we do not get that kind of chronic malaria. Remember, I am a firm believer in chronic malarial toxæmia, but it is rare, it does not manifest itself in that kind of way. Every case characterized by a sudden onset, severe chill and fever, and sweating, lasting for an irregular time and coming on at irregular intervals, is a septic case, no matter what a poor diagnostician or an incompetent practitioner may call it. The one question is, Where is the focus? As a rule, it is in the gallbladder, in the appendix, in the kidney, or in the liver. These are the four regions to look for the trouble.

Case III is so simple. The patient actually had jaundice. Every case of jaundice, if it does not subside within a few weeks, as most cases do that are simply catarrhal, should have an exploratory operation, for the purpose of making a diagnosis and, if possible, of relieving the condition. If the jaundice is caused by gallstones or inflammatory adhesions, the operation can be complete and the patient cured. If the jaundice is caused by malignant growth, as a rule very little can be done, but the diagnosis at least is clear, and you know what you are at.

Case IV shows the latter condition. The malignant growth could not be removed, but the jaundice could be relieved and the condition of the blood improved by drainage.

Case V beautifully illustrates the necessity for an exploratory operation in obscure abdominal swellings. The patient seemed to have a tumor. Exploration revealed simply an enlarged displaced normal organ, and by bringing it in to a normal position and keeping it there, the interference with the return circulation was stopped, and the organ soon was reduced to its normal condition. The exploratory operation not only made the diagnosis clear, but also enabled the surgeon to cure the patient at the same time.

Case VI beautifully illustrates the fact, that any inflammatory condition in the abdomen of a woman will cause many practitioners to jump to the conclusion that she has a suppuration of the ovaries and tubes, and to proceed to remove them. The appendix is overlooked and diseases of the gallbladder are overlooked. The pain, which is often most severe during, or just before, or just after the menstrual period, must be caused by the ovary. Care is not taken to make a proper diagnosis. The diagnosis is jumped at; there is no careful investigation, no watching of the case.

The great thing in the practice of medicine is the " diagnosis." For the treatment the ignoramus can look in the textbooks.

Batavia, N. Y., Hospital.—The directors of the Batavia Hospital have undertaken the work of raising $2,500 for the purpose of building an annex to the hospital for the treatment of contagious diseases.

THE SEQUELÆ OF TYPHOID FEVER IN THE NERVOUS SYSTEM.*

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Although typhoid is sometimes called nervous fever, and rich as it is, during its course, in symptoms directly pointing to involvement of the nervous system, the neurologist rarely sees it. The various motor manifestations, the headache, the delirium, the stupor, the pronounced manifestations of inflammation of the cerebral meninges, or even of cerebrospinal meningitis, are usually, and rightly, considered as part and parcel of the original infection, and as such are cared for exclusively by the internist. Most of the nervous manifestations of the disease are transitory, depending upon the severity of the infection and the reaction to it of the individual. They pass away with the other symptoms. Others, such as the tedious physical and mental prostration which often make complete restoration to health so long delayed, do not call for special diagnosis or special therapy, and simply indicate the severity of the poison on the structures which preside over nutrition. There are left certain distinctive involvements of the brain, of the spinal cord, and of the nerves, as well as certain functional affections, which begin during the course of the fever or shortly after its subsidence; and also certain chronic degenerative and progressive affections for which typhoid is invoked as a cause. But all such sequelæ are so rare, that typhoid, though it may be called a nervous disease, cannot be called a neurologist's disease. I feel that some such statement is due as a preliminary to my brief remarks on this subject, for I must confess at the outset that my experience in hospital wards, in the clinic, and in private practice, with the nervous sequelæ of typhoid fever, has been limited. There are very few instances in records accessible to me of such sequelæ. As an example of the rarity of these sequelæ, of 125 cases of typhoid treated at St. Luke's Hospital during the summer of 1898, many of which I saw, in none is there any record of definite nerve involvement. What I shall have to say, consequently, anent this subject, will only be to a small degree founded on personal experience.

Autopsy records of lesions in the central nervous system consecutive to typhoid, with the exception of meningitis, are infrequent. We are, therefore, not in a position to postulate too categorically as to the nature of the pathological processes which occur. Experiments on animals and the results of autopsies on persons dead of typhoid leave little doubt that both typhoid bacilli and typhoid toxines may induce rapid and extensive degenerations in the central nervous system. Several cases are on record in which, after violent and brief clinical symptoms, the spinal cord was found softened, and the seat of extensive hæmorrhages. In the brain, such processes are usually associated with purulent meningitis. In the peripheral nerves of animals, injection of both bacilli and toxines have induced extensive degenerations. In an interesting and valuable series of pathological and experimental investigations, Nichols, of the Johns Hopkins Hospital, showed that lesions in the spinal cord of persons dead of typhoid were demonstrable with considerable constancy. These lesions were found in the motor cells of the anterior horns and in the spinal ganglia. They consisted in chromatolysis, chiefly central, but also present at the periphery of the cell and in the dendrites, with more or less degeneration and displacement of the nucleus. The degenerations also extended to the axis cylinder processes and to the nerves. The pathological changes were found chiefly in the lumbar region. Ewing also has found degeneration in the cells of the cortex in persons dead of typhoid. It is evident, therefore, that the very intensity of the poison may, without the intervention of anæmic necrosis through thrombosis, cause extensive and fatal lesions in the central and peripheral nervous system.

Independently of the violence of the infection, the blood vessels of the central nervous system, as those elsewhere, are liable to thrombosis and embolism. It is probable that the vast majority of hemiplegias developing during typhoid are the results either of embolism or thrombosis. It is also probable, though not so well demonstrated and more difficult of demonstration, that the spinal paraplegias are due, in large part, to embolism and thrombosis.[1] A vascular origin for the neuralgias and neuritides is much less probable. It is presumable that these affections arise in typhoid, as elsewhere, from toxic causes, or from pressure. In a recent case shown at the New York Neurological Society a small post-typhoid ulceration of the skin of the neck had involved the nerve to the platysma with resulting paralysis of one half of that muscle.

In reviewing the scanty data at our disposal as regards the effect of the typhoid poison on the nervous system, several points come prominently to attention. The central nervous system is under special duress, even when gross symptoms of its lesion are absent. Cerebrospinal pressure has been shown to be increased during the disease, the knee jerks are generally active, foot clonus is common, and the Babinski reflex, which has come to be regarded among the most reliable indices of interference with the pyramidal tracts, is present in one half the cases. Typhoid affects, however, the peripheral nervous system as well as the central, as both clinical observation and pathological research show. The poison acts acutely and in a way to make recovery possible, but it only rarely acts in a way to give definite focal symptoms. But that it does affect the whole nervous system with remarkable regularity is shown by the wide range of functional nervous disturbances during the fever and by the extreme prostration which follows it. In this respect typhoid is rather different from the other infectious diseases. It furnishes abundant evidence of serious and general involvement of the whole nervous system in a large proportion of cases, but only in very few cases does it single out one definite part for attack. When it does, it apparently follows no definite laws. The post-typhoid effects on the nervous system lack the conformity to type, such, for example, as we find in the postdiphtheritic palsies. In typhoid, spinal affections and peripheral nerve affections seem to go together. No single nerve seems particularly susceptible to this special poison. The clinical type of multiple neuritis is rare. If one spinal nerve is affected some other one is very apt to become so, either at the same time or subsequently. This multiple involvement of separated individual nerves is rarely, if ever, seen in other diseases. Altogether, it seems as though the nervous system were, during and shortly after the fever, in a condition of mild general toxæmia, a toxæmia more general than in other infectious diseases. This toxæmia in most cases subsides shortly after the fever, leaving generalized, but reparable effects, throughout the cerebrospinal axis. These effects show themselves clinically as prostration, ease of fatigue, apathy, inanition, etc. Only rarely do the toxic effects become sufficiently localized in one spot to cause local nervous disease; and when they do so, they do not follow the ordinary clinical types seen in other infectious processes.

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* Read before the Section on Medicine of the New York Academy of Medicine, October 20, 1903.

[1] A curious case of spinal paraplegia has been reported in which the cord was involved through a bed sore over the twelfth dorsal vertebra.

Hemiplegia.—Aside from meningitis, hemiplegia is the most frequent brain complication of typhoid. It may occur early in the disease, but comes much more commonly during or after the third week. It may occur during a relapse. Its advent may be announced by a rise of temperature. Its onset may or may not be accompanied by loss of consciousness. Convulsions are not the rule. It is more frequent on the right side than on the left, and consequently is often associated with aphasia. Temporary aphasia, unassociated with motor paralysis, is not so uncommonly observed during the course of typhoid. It is probable that such temporary aphasias are the results of slight and curable thromboses which do not extend beyond the Island of Reil. The hemiplegias usually involve both the face and the extremities of the affected side. They do not seem to exert an unfavorable influence on the course of the typhoid, and are only occasionally fatal. In some cases the paralysis is said to disappear entirely, more frequently it improves.

Spinal Paraplegia.—Many of the earlier reported cases of spinal paraplegia might now be regarded as examples of multiple neuritis. Paraplegia, with anæsthesia and loss of bladder control, is certainly a very rare complication of typhoid. It may appear very early in the disease, one case being on the ninth day. It may also appear late. In the case of a gentleman who consulted me last summer, the typhoid, which was of extremely severe type, and was followed by several relapses, began in August, but the paraplegia, which was of sudden onset, did not appear until the following March, viz., seven months after the first symptoms of the fever. In some cases, evidently of spinal origin, one extremity only is involved. In others, one extremity after another is successively involved. Paraplegia is always more serious as regards restoration of muscular power than hemiplegia, and in typhoid its complete disappearance is less frequently mentioned than is that of hemiplegia. At the same time it is only rarely spoken of as being fatal, the fatal cases coming on early in the course of the typhoid.

Neuritis.—Neuritis is by far the commonest organic sequel of typhoid in the nervous system. It usually involves individual nerves. It comes on chiefly in the third week or after. The chief clinical distinction between neuritis and neuralgia depends upon whether paralysis is present or not. Pain is very prominent in the typhoid neuritides, and there are many cases in which the pain follows the distribution of individual spinal nerves without there being appreciable loss of power in the muscles supplied by the nerve. It seems probable that these purely painful hyperæsthetic and paræsthetic affections, represent slight inflammatory changes, rather than trophic ones, in the nerves, and that the disturbances should be called neuritides. The sciatic and the nerves of the arm suffer chiefly in this regard. Of the more pronounced nerve inflammations, *i.e.*, with pain plus loss of power, the most frequently involved of the spinal nerves seem to be the ulnar and the peroneal, although cases are on record of the posterior thoracic, the circumflex, the brachial plexus, the median, etc. Curiously enough the musculospiral, usually a susceptible nerve, is in typhoid more rarely affected than almost any spinal nerve. It is more common for two nerves to be simultaneously or successively affected than for the neuritis to remain isolated. This is shown by the cases in which paralysis is present, as well as by those in which there are several points in different parts of the body which are excessively painful and tender. Inflammation of two or three nerves together seems much more common than the multiple neuritis, such as is seen in alcoholic and other toxic states. I can recall seeing no case of multiple neuritis following typhoid, and the only case I can find in recent literature was extremely atypical, as both the knee jerks and the electrical excitability of the muscles were retained. The cases of neuritis accessible are almost too few to permit generalization as to prognosis. All paralytic cases do not recover, although probably most of them do. The cases with pain as the only symptom recover slowly. Of the cranial nerves affected by typhoid, palsies of the ocular muscles are comparatively common. Ptosis and paralysis of the external rectus have been most frequently observed. It is impossible to say whether these are due to inflammation of the nerves or to their compression by meningitic exudates or are the results of thrombosis. The same is true for the palsies of the throat, of the facial and of the hypoglossal. Interference with the recurrent laryngeal is particularly frequent. In the cranial nerve affections, pain is not mentioned as a symptom. Before leaving the subject of neuritis mention must be made of Landry's paralysis. In a study made several years ago with Dr. James Ewing, we came to the conclusion that Landry's paralysis was an acute toxæmia affecting the whole nervous system. Of the forty-four cases we analyzed, no sufficient cause was found in more than half. Of the few cases following infectious diseases, two followed typhoid, the same number that followed smallpox. Also, in a case recently reported as multiple neuritis, the disease followed the Landry's course and the cardinal points of the Landry symptom-complex—viz., preservation of electrical excitability and of the knee jerks—were present. These facts are significant in view of the contention that the typhoid effects on the nervous system are general.

Functional Effects.—We have seen that it is probable that at the termination of typhoid the whole nervous system shows definite microscopical evidences of degeneration. We have in this, then, a ready explanation of the symptoms of hysteria and neurasthenia which are the most frequent clinical results in the nervous system. Typhoid is regularly put down as one of the important "*agents provocateurs*" of hysteria. The catalepsy sometimes seen during the fever is itself of hysterical character. Neurasthenia is the commonest known result of typhoid. It occurs simply as a fatigue neurosis. It is often associated with depression. One other matter should be spoken of in this connection, both on account of its rarity and of its contested pathology. I refer to "typhoid spine." This condition is supposed by its original describer, Gibney, to be due to periarthritis of the spinal joints in the dorsolumbar region. It comes on during the latter period of typhoid, gives the symptoms of lumbago, and is very painful and persistent. It seems to be as obscure in its pathology as all lumbago is. Regularly associated with general neurotic symptoms, and similar as it is to "railway spine," it is very easy for it to be regarded as a purely hysterical symptom. It has always appeared to me to have a definite organic basis, analogous to the organic basis assumed for rheumatism, either in the spinal joints or back muscles, and possibly in the lumbar nerves.

Of the chronic degenerative diseases of the nervous system with typhoid as a cause, multiple sclerosis is the only one in which such a connection is at all plain. It has been conclusively shown that the relationship between multiple sclerosis and the infectious diseases is close, and that in this relationship typhoid occupies an important place. Of 120 cases of multiple sclerosis analyzed by Lebrun, in 23 it developed in close sequence to typhoid. The nervous disease appeared during the typhoid, toward its end and during convalescence. In two cases only was there a long period of interval—viz., two years.

In the other chronic degenerative diseases of the nervous system the ætiological bearing of typhoid is much more doubtful. It has been followed by exophthalmic goître, and in several reported cases of paralysis agitans it is invoked as a cause. It is also spoken of as a factor in the causation of epilepsy. General epileptiform convulsions are from time to time observed during typhoid, and it is possible that, in strongly predisposed individuals the epileptic habit might become established. We have found it an almost negligeable cause of epilepsy at the Craig Colony.

The most typical of the post typhoid phychoses is of the asthenic type and resembles in many ways the asthenic psychoses generally. It usually appears after convalescence has begun. Typhoid, more than any other fever, predisposes to this form of insanity.

52 WEST FIFTY-THIRD STREET.

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City Hospital, Louisville, Ky.—The training school attached to this hospital graduated the following on June 16th: Katharine Krauth, Hattie Thomas, Clara Leon, Agnes Wood, Mattie Bottorff, Ethel Fouts Bonnie Daugherty, Bessie Baylor, and Georgia Stinton.

THE DIFFERENTIAL DIAGNOSIS BETWEEN INCIPIENT PULMONARY TUBERCULOSIS, HEALED CAVITIES, AND NON-TUBERCULOUS FIBROSIS.*

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The differential diagnosis between incipient pulmonary tuberculosis, healed tuberculous cavities, and simple fibrosis of the lungs, is one which frequently confronts, and no less often puzzles, the practitioner of medicine. In attempting to arrive at a correct solution of the problem, the greatest care should always be exercised to ascertain and carefully weigh all the facts that can be learned concerning the patient's past history and mode of life. The probable duration of the disease, the occurrence of a foregoing hæmoptysis, the history of an attack of typhoid pneumonia, pleurisy, or protracted influenza, and, to a certain extent, the individual's appearance, will often be of the greatest help in deciding the question.

Taking up first the differentiation of an incipient tuberculosis and a healed cavity, it may be said that if the case is a truly incipient one, the diagnosis may in the majority of instances be correctly made. Both of these conditions may give dulness on percussion, accompanied by diminished and delayed expansion of the affected side, with an increased sense of resistance felt on percussion, and with flattening and retraction of the tissues overlying the lesion. These signs would, however, be more marked in cases with a cavity. Vocal resonance and fremitus will probably be increased in both cases, owing to the infiltration which occurs in each instance; but a thickened pleura may cause these signs to be absent. Instead of dulness on percussion, tympany may be encountered; this may be considered evidence in favor of a vomica, but some incipient cases yield a high pitched wooden dulness, a kind of impaired tympany, which is sometimes confusing. According to Abrams, tympany, not dulness, is in many cases the early sign of tuberculous disease. It must also be borne in mind that tympany, especially with the above noted quality of impairment, as well as cracked-pot sound, may be elicited when consolidated lung tissue overlies a large bronchus.

The results of auscultation are more satisfactory. The fine localized crackling râles, heard especially at the end of inspiration and often disappearing upon deep breathing, are not easily confused with the larger, louder, metallic clicks, which speak so volubly of cavity to the educated ear. In like manner, the blowing amphoric note and whispered cavernous pectoriloquy are not readily confused with the suppressed breath sounds, respiratory harshness, bronchovesicular or bronchial breathing, whichever the incipient case may present. Halting, cogwheel respiration may be heard in either of the conditions and occurs usually, not directly over the diseased area, but between it and the healthy lung tissue. It is at best a finding of doubtful value, especially if noted anteriorly in the left chest in the neighborhood of the large vessels.

In case, as often happens, a cavity is contracted or filled with secretion, amphoric respiration, whispered pectoriloquy, cracked pot sound, and râles, etc., will be absent, and the breath sounds will be suppressed or bronchovesicular in character. At such times Wintrich's or Gerhardt's change of note, if obtained, may be of great assistance, as may also Friedreich's sign—which consists of an increasing height of pitch on percussion at the end of a deep inspiration. The metamorphosic respiration of Seitz—inspiration beginning with a distinct bronchial character and fading into the bronchovesicular or vesicular type, or vice versa—is also said to be indicative of cavity; but this phenomenon is not often met with.

At this point I should like to emphasize the necessity, in doubtful cases, of making several examinations at different times, before committing one's self to a diagnosis; especially is this necessary when the patient cannot be made to breathe properly. If such a plan is followed, it will often be found, at the second or third examination, that signs of indubitable portent have become evident.

The presence or absence of tubercle bacilli in the sputum is of little value in the differential diagnosis between the two conditions. Large numbers may occur in early cases as the result of a breaking down of a tuberculous nodule, and well marked cavities often furnish few or no bacilli.

An inspiratory wheezing is sometimes heard, especially after coughing, over a cavity. The act of coughing will often cause the signs of cavity to become more marked, and at times auscultation in the axillary apex will reveal cavernous breath sounds in a lung area, which, when auscultated elsewhere, yielded doubtful results. "The impulse of a displaced heart may cause a systolic 'air wave' murmur in a cavity, which may be audible in the trachea, mouth, or even at a distance when the patient's mouth is open" (Fowler and Godlee). A cavity with induration and contraction may cause systolic murmurs in the first and second interspaces anteriorly, by constricting the pulmonary or subclavian arteries; but this phenomenon must not be confused with the hæmic murmurs heard in the large vessels and at the base of the heart in early cases. If doubtful signs are found in both lungs the evidence would be slightly in favor of cavity. Small cavities often exist without demonstrable physical signs except gurgling râles, and it is sometimes difficult to draw the line between tubular and amphoric breathing. On the whole, whispered pectoriloquy—except at the second left costosternal junction or posteriorily over the bronchi—amphoric respiration, and musical clicking râles, are the most reliable signs of cavity formation; although none of these signs is pathognomonic of the condition. Cavities are more frequently overlooked than erroneously diagnosticated when absent.

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* Read at a staff meeting of the Phipps Institute.

The diagnosis of incipient pulmonary tuberculosis from non-tuberculous fibrosis, if the latter is localized, is, for the reason that we have to deal in either case with lung infiltration, frequently impossible. I have recently seen at the Episcopal Hospital a case of typhoid fever with impairment of resonance, flattening of the chest, and diminished expansion, at both pulmonary apices, with fine crackling râles and bronchovesicular expiration, which I took to be a case of tuberculosis, but which proved at autopsy to be one of high grade anthracosis, with marked fibroid induration unaccompanied by any tuberculous lesion. This case well illustrates the difficulty encountered in diagnosticating such conditions.

If the fibrosis is confined to one lung, vicarious functional emphysema will probably exist on the opposite side, much greater in amount than is present in a case of incipient tuberculosis. Marked restriction of diaphragmatic excursion would perhaps be evidence in favor of simple fibrosis, but this may exist in early tuberculous cases, as the result of pleuritic pain or adhesion. Of course, extensive fibrosis with marked thoracic retraction, displacement of the heart, etc., is not so hard to distinguish; and, needless to say, high or continued fever, tubercle bacilli in the sputum, persistently rapid pulse or protracted diarrhœa without apparent cause, fistula in ano, or a positive tuberculin reaction would soon settle the diagnosis. To find both apices slightly simultaneously and *equally* diseased is not common in tuberculosis, but the fact that the lesion is located in the middle or lower lobes by no means excludes this disease. Usually, however, when a basal lesion is tuberculous, some involvement of the upper lobes will be found.

In either of the foregoing conditions useful information may often be obtained from the use of the fluoroscope and the laryngeal mirror, but both these instruments require a special training on the part of their user.

A year's experience at the Phipps Institute has served to emphasize the fact that the significance of physical signs, as currently taught, when viewed in the light of autopsy findings, is often stultifying and apparently contradictory; and verifies the old adage that "experience is fallacious and judgment difficult." No doubt these apparent oppositions which I have called contradictions are explainable on a purely physical basis; and one of the tasks which the Phipps Institute has set for itself is by careful observation, annotation, and study, to render its share of assistance in the ultimate solution of these, at present but partially understood, problems; ever bearing in mind that "a dogma learned is only a new source of error—but a spirit communicated is a perpetual possession."

1530 Locust Street.

CONGENITAL INSPIRATORY LARYNGEAL STRIDOR, WITH REPORT OF A CASE

By SAMUEL KOHN, M. D.,

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Laryngeal stridor in earliest infancy is a condition rarely encountered in medical practice; the published contributions to our knowledge of this curious anomaly of the upper air passages of the newly born infant are infrequent; many text books on laryngology and pædiatrics do not even refer to it. Rilliet and Barthez, in 1853, first described the affection; the entire literature is summarized in the articles of Merklen and De Vaux (*Gaz. des hôpitaux,* June 7, 1902), and Bruder, on Stridor Laryngée Congénital des Nourissons (*Trans. Internat. Med. Congress,* Madrid, 1903). The published observations of Löri (Buda-Pesth), Gee, Lees, Robertson, Thomson, McBride, Avellis, Variot, Eustace Smith, Sutherland and Lack, Semon, Herzfeld, Moure, Comby, Goodhart, Logan-Turner, Guilbert, Refslund, Mendez and Wright are interesting and valuable, in that they show the various opinions entertained by these writers as to the origin and nature of the malady. In this country, Dr. Crosby Greene (*Boston Medical and Surgical Journal,* June 11, 1903), and Dr. James E. Newcomb (*Medical Record,* July 25, 1903), are the most recent contributors to the literature, both articles being most able.

It is eminently desirable that the general practitioner should be thoroughly familiarized with the symptomatology, causation, and course, as the formidable signs of interference with the entrance of air into the lungs are usually manifested immediately after the birth of the child; and the accoucheur, unless he recognizes the true nature of the stridor, which often simulates that of laryngeal diphtheria, may be led to undertake a heroic, but mistaken, operative procedure, which would be not only useless, but positively harmful.

The writer feels a certain satisfaction, therefore, in being able to present to you this girl, aged two years, who has been suffering with marked laryngeal stridor since her birth. She has been under my care since she was eleven weeks old; when I first saw her, in December, 1902, the sawing noise with each inspiration was so loud as to be audible in all parts of the apartment; and, later, when she was brought to my office, it was loud enough to produce consternation among the patients in my waiting room.

The history briefly is as follows: Parents are both healthy; the father is thirty-seven years old, well nourished; suffers somewhat from bronchial asthma; the mother is thirty-three years old, is perfectly well; has previously borne six children, all of them splendid specimens of healthy children; she has never miscarried. Syphilis is absolutely excluded. Her labor with this last child was protracted, but otherwise normal; a physician was in attendance. Immediately after delivery, the child was heard to breathe with a loud sawing noise with each inspiration, and a slight "grunt" at the end of each expiration, "as though it had the croup," to use the mother's expression. Physicians were called in to consult with the accoucheur, who advised tracheotomy, intubation, an operation for adenoids, etc., but wiser counsels prevailed, and it was decided to await the further course of the dyspnœa.

When, finally, the child was brought to my attention (it was then eleven weeks old), an examination convinced me that the loud stridor heard with each inspiration was due to some obstruction in the larynx; deep retraction of the supraclavicular and infraclavicular spaces, at the suprasternal notch and scrobiculus cordis, with each inspiration, as is seen in obstruction of the larynx from any cause, was present; there was no cyanosis; no fever; pulse 130.

Nothing abnormal was to be seen or felt in the pharynx; no adenoids; a laryngoscopic examination was attempted, but without success.

The child nursed at the mother's breast in my presence, but was compelled to suspend suckling every few respirations to satisfy its hunger for air. Further observation showed the character of the stridor to be variable, being loud and high pitched when the child was awake; louder and higher pitched when the child cried or became irritable from any cause; and low pitched and sonorous when the child slept. The child was quite fairly nourished, but not up to the normal; it had a peculiar facial expression, a broad, flat nose, and high cheek bones, which gave it a cretinoid expression; the occiput was very protuberant. I confess that I was in doubt as to the diagnosis, never having seen a case of similar character; the tentative diagnosis of papilloma of the larynx was entered on my case book, and I dismissed the patient with some misgivings as the outcome.

When, a few days later, the child was brought to me, and no aggravation of the condition was discernible, I concluded that there was no immediate danger to life.

The further progress was uneventful; the child's growth and development were, considering the difficulty in breathing, fairly satisfactory, though much below the normal; small doses of syrup of the iodide of iron were given, alternating with small doses of corrosive sublimate ($^1/_{150}$th grain); and, after a few weeks of no medical treatment, small doses of codliver oil were administered. At six months, the stridor seemed to have abated somewhat. The eruption of the first teeth did not occur until the child was a year old. At this time (at the age of one year) the child suffered from an attack of severe lobular pneumonia, lasting three weeks. During this time the stridor almost entirely disappeared; and this is an observation I have not found noted by any of the writers on this subject. It is probably to be explained by two causative factors: first, owing to the inflamed condition of the lung and pleura, there was less expansion of the pulmonic tissue; and, secondly, the inrush of air through the larynx with each inspiration was less strong than in the healthy state; in fact, not sufficiently strong to produce stridor.

At the age of eighteen months the child underwent a second attack of catarrhal pneumonia, lasting several weeks, during which time the stridor again subsided, only to reappear when convalescence set it.

Present condition: The child is anæmic; she has gained weight steadily, but is still not up to the normal; there are no signs of rhachitis; her physical and mental development are retarded. She is able to walk by holding on to some support; while she is quick to understand all that is said, she is unable to speak a word, although she is two years old. The cretinoid expression of the face noted at the beginning of this paper is more marked, but no other signs of cretinism are present. After many attempts to use the laryngoscope, I finally succeeded, by pressing downward and forward the tongue and hyoid bone, as recommended by Thomson and McBride, in getting a momentary glimpse of the larynx. This examination revealed a small epiglottis, infolded at its edges, giving it the appearance of a hollow cylinder; the aryepiglottic folds, from the momentary glimpse I had of them, seemed hypertrophied and flabby. The encroachment upon the introitis laryngis, by the infolded epiglottis and the flaccid, hypertrophied aryepiglottic folds, and the still further narrowing of the opening during inspiration by suction inwards of these soft parts, seemed to me fully to explain the stridor.

This observation coincides with the views expressed by Sutherland and Lack (*Lancet*, September 11, 1897, and page 894, 1898). Dr. Lees (*Trans. Path. Soc., London*, 1883) reports an autopsy on a child born with laryngeal stridor, but which died of diphtheria, in which conditions like those above described were found.

Diagnosis. The diagnosis must be made between congenital stridor and papilloma of the larynx; diphtheria; hereditary syphilis; thymic asthma (Kopp); laryngismus stridulus; catarrhal laryngitis; retropharyngeal abscess, phrenoglottic spasm; congenital retraction of the larynx; essential spasm of the larynx in infants; and adenoids.

A careful study of a given case will serve to make the diagnosis; absence of fever and cyanosis will differentiate it from diphtheria; the only one symptom of laryngeal diphtheria presented is the stridor; all other signs and symptoms of a systemic infection are absent. Compression of the trachea by an enlarged thymus may produce stridor; but, as Variot has shown, intubation of the larynx does away entirely with the congenital stridor—which would not be the case if a thymus compressed the trachea below the larynx.

The diagnosis from a spasmodic affection seems to be very simple, inasmuch as in congenital stridor the condition is unchanged from day to day, the noise persisting even during sleep, and becoming louder when the child becomes excited; a spasm so persistent as to last day and night for years seems to me unthinkable; but such an authority as Dr. Löri (Buda-Pesth) considers the disease "a clonic spasm of the larynx."

From papilloma the diagnosis is made by watching the course, which in papilloma would rapidly reach a point when operation would be imperatively necessary to prevent suffocation.

Laryngismus stridulus usually appears at the first dentition, and in children who have a rhachitic tendency.

Retropharyngeal abscess can be detected by digital examination; this method of examination will also exclude adenoids, although Eustace Smith has asserted that most cases of congenital stridor are due to adenoids, and Dr. Gee has expressed the opinion that all cases are due to reflex irritation of the pharynx; these views, however, have been completely controverted by later writers. It is needless to go into the diagnosis from hereditary syphilis; the family history and the skin eruptions will suffice to make the diagnosis of lues.

If the attending physician will bear in mind that congenital laryngeal stridor sets in immediately after birth, that there are no cyanosis, no grave symptoms attributable to infection, and no involvement of any other organ, the diagnosis is readily made.

Causation. From what has been said above, the cause of the affection is seen to lie in the larynx, and to be due to a hypertrophy of the soft tissues at the introitus laryngis; but the views of various writers are much at variance with this explanation. Dr. Thomson (*Edin. Med. Jour.*, September, 1892) considers the condition to be due to a coordination neurosis and a defective development of the respiratory centres, and he writes an elaborate thesis to prove his contention. Dr. Robertson (*Jour. of Laryngol.*, 1891) is sure that the stridor is due to posticus paralysis. Dr. Herzfeld considers it due to a developmental neurosis, akin to stammering. Avellis considered the main cause to be tracheal compression. Variot and Le Marc Hadour report a disappearance of the stridor, in which they observed an unfolding of the epiglottis, which had been folded on itself. Dr. Gee, who has termed the condition "respiratory croaking in babies," considered the cause to be reflex irritation from pathological conditions in the pharynx. However, all the later writers are agreed upon the fact that the true moving cause of the stridor is to be found in the conditions described as present in my patient.

Course. A case has been described in which the stridor ceased when the child was one month old (Cerf.); in another it lasted three years; most of the writers are agreed that the stridor gradually disappears as the larynx grows larger and the muscular system more developed. The children suffer in their development, which is retarded, as long as the stridor persists. When this ceases they are perfectly well. My little patient, although now two years old, "croaks" with each inspiration, but seems, nevertheless, to thrive and to enjoy her life.

According to Dr. Newcomb, Dr. Delavan, of New York, has told him of a grown up boy who is approaching adolescence, but who is still troubled with his congenital stridor.

Treatment. There is, of course, from what has been said, no logical or rational, causal method of treatment; hygienic measures and good nourishment play the principal part in the therapy. However, with a view to obtaining some alterative or resorbent effect, I gave my little patient, as above stated, small doses of sublimate, alternating with small doses of syrup of the iodide of iron and cod-liver oil. I justify this treatment on the ground that there exists in my case a hypertrophy of the soft issues at the laryngeal aperture, and that possibly iodine and mercury in minute doses may exercise a resorbent effect on this hypertrophy.

13 EAST SEVENTY-FIFTH STREET.

St. Luke's Hospital, St. Louis, Training School.—The following graduated on June 15th: Misses Addie L. De Foe, Katie T. Dillon, Elsie Ruffer, Minnie Hamilton, Anna Love, Edna Ellis, Mary A. Scheibe, Bertha Miller, Bertha Love, and Ella Ogden.

THE DYSENTERY OF THE TROPICS, WITH SPECIAL REFERENCE TO OUR INSULAR POSSESSIONS.

By FREDERICK M. HARTSOCK, M. D.,

U. S. ARMY.

By dysentery I refer to that class of acute and chronic intestinal inflammations met with in the tropics, which are characterized by frequent painful bowel evacuations and the presence in the stools of products significant of lesions of the superficial and deep mucosa, i. e., mucus, pus, blood, and sloughs. Further, that these conditions are due to specific agents and in most cases are epidemic or endemic, differing as to season and locality.

By this definition I mean to exclude from discussion those terminal intestinal affections seen in the debilitated; asylum-cases, toxic and accidental; together with the numberless isolated cases depending on a local or personal factor; any of which may be seen at any season in temperate climes.

The separation by the clinician of dysentery into three classes has led pathologists to prove the correctness of this division.

Long before the amœba was recognized or the Shiga bacillus discovered, the tropical practitioner noted the great difference clinically between the third and second types which I am about to describe; and in my personal experience in Puerto Rico, in 1898-99, I suspected the existence of the specific (Shiga) dysentery before I had seen or heard of its presence there having been demonstrated microscopically.

The types of dysentery seen in our insular possessions may be sharply separated into the following:

1. *Catarrhal.*—A simple form, probably due to the combination of two factors, i. e., the naturally hyperæmic condition of the intestinal mucosa of the European in the tropics, plus some irritating substance which may get access to the abdominal mucosa, either bacterial, parasitic, or chemical.

2. *Amœbic.*—That insidious affection almost chronic from the start in which is seen the greatest amount of destruction of the intestinal mucosa, and which is dependent on or associated with a parasitic amœba.

3. *Acute Specific.*—An acute infectious disease, the lesions of which are in the large and lower part of the small intestine and mesenteric glands, and in which is found a bacillus "related in its cultural and physiological properties to bacillus typhosus," which agglutinates with the blood of patients with this form of dysentery.

It is, of course, of the greatest importance, as to both prognosis and treatment, to recognize the difference in these types, and this is not difficult if one uses the ordinary laboratory aids at hand. Without recourse to microscopical examination in dysentery serious errors are apt to arise.

The simple catarrhal form may be passed over with a few remarks as to its benignity as compared with the other two, but here let me state that even the most simple cases of intestinal inflammations in the tropics should receive prompt and vigorous treatment, for ever before us is the chance of psilosis succeeding a refractory case.

In the diagnosis of the simple form we must eliminate the other two; the specific dysentery giving, in a large percentage of cases, the agglutinative test, and in the amœbic the parasite will appear in the dejections.

The symptoms of this form will be very mild, probably from three to a dozen evacuations during the twenty-four hours at the onset, and then a gradual diminution in number, so that the patient is convalescent in a week. No enlargement of the liver or spleen will accompany this form, and the upper digestive tract will be little affected.

The stools will be jelly like in consistency and streaked with blood, and in some cases pus. Under the microscope will be seen nothing to account for the condition, the usual inflammatory products being present, and occasionally one or more species of monads, the *Tricocephalus dispar* or ova of intestinal parasites.

Under proper treatment the patient will be able to take solid food in about ten days or two weeks, and in from two to three months the occasional mucous coated stool will disappear.

If the patient is debilitated or is the subject of some intercurrent disease, such as malaria, syphilis, or scurvy, the case may be prolonged for months in a subacute form, and finally end by exhaustion from emaciation or from fatty heart or amyloid disease, or, what is more likely, sprue will develop with its $33^1/_3$ per cent. mortality record. These latter terminations only come by neglect, and are mostly seen in alcoholics or those who have been long under bad hygienic conditions with improper and insufficient diet.

Let us consider the factors which may produce dysentery in a European, in the presence of that before noted condition of hyperæmia of the intestinal mucosa from atmospheric and climatic influences. Bacteria play the most prominent part, undoubtedly, but it is difficult to state exactly the causative factor in each epidemic, as the varieties isolated differ widely. The ordinary pus organism, the *Bacillus pyocyaneus*, *Proteus vulgaris*, and even the colon bacillus are the principal organisms.

Next in order, certainly, must be placed the influence of the plasmodium of malaria, for cases of the following type are frequently seen: A patient will have a slight febrile attack attended with constipation; examination of the blood will reveal either the tertian or the æstivoautumnal organism, generally the former. Now, if no purgative is administered and quinine is delayed, the patient will, on the succeeding day, complain of some slight tenesmus and likely a constipated stool will be followed by four or five movements, liquid in consistency and streaked with mucous and blood.

I have frequently anticipated these attacks and promptly aborted the dysentery by a timely administration of broken doses of calomel and the use of acid solution of quinine. In a few instances I have seen the malarial organism in the blood passed per rectum.

Aside from these former ætiological factors there are few to be considered. A serious attack of dysentery in the tropics may follow exposure of the abdomen at nights while asleep, or some error in diet may superinduce the condition, but likely a combination of all of these factors is often the cause.

The amœbic dysentery is so different from the former in all its symptoms that in typical cases a diagnosis can almost always be ventured on the clinical phenomena alone. This form is, as before stated, essentially a chronic condition from the onset; while cases may be seen with several bloody evacuations daily and considerable tenesmus, the majority begin gradually, giving but slight discomfort at first and it is only after a series of relapses that the patient begins to notice and appreciate that he has a serious condition with which to deal.

A typical case will give the following history: Slight looseness of the bowels for a week or so previous to consulting a physician, slight tenesmus and the presence of a small amount of mucus streaked with blood in the stools. The patient will likely take slight notice of the local symptoms, his general condition being good, and after taking some simple remedy or an opiate the symptoms will pass off and the patient will think the trouble over. After a day or two the former attack is repeated, and thus the case goes on until the subject begins to note permanent pain and tenderness in the lower abdomen, particularly in the left side. From this time on the dysentery is chronic, and will end in recovery at some late period or in one of the ways hereafter to be mentioned.

Amœbic dysentery, or amœbic infection of the intestinal mucosa, if I may apply this term, may, however, be quite atypical, and the presence of an inflammation with amœba may exist without symptoms, or may be first noticed in connection with hæmorrhoids, prolapsus recti, or rectal or sigmoid ulcers.

A patient consulted me for prolapsus recti; no history of dysentery; had been quite well previously, with the exception of the rectal trouble, which had existed for about three weeks. Examination of the rectum with the patient over the bed pan showed prolapse of about four inches of gut; no ulcers, but great turgescence and œdema of mucosa, and presence of considerable mucus over surface. Examination of the mucus showed few red blood cells and *Amœbæ dysentericæ*.

This patient never had afterward any dysenteric symptoms, and the gut became quite healthy under treatment with Paquelin's cautery and injections of quinine solution.

In another case a patient entered my service at Base Hospital, Iloilo, Panay, Philippine Islands. He had had typical typhoid fever chart for five days, moderate delirium, constipation and tenderness over the liver, with enlargement over the region internal to the gallbladder. Diagnosis made of abscess, and operation evacuated about six ounces of pus. The walls of the abscess showed *Amœbæ dysentericæ*. Death on the following day; autopsy showed the liver studded with small abscesses. The intestine showed numberless ulcers of the transverse and descending colon, and the presence of amœbæ, yet this patient had never had a symptom referable to the lower abdomen. Frequently, in this infection, obstinate constipation exists, and amœbæ will be found in the mucus coating the scybala.

I have seen amœbæ also in hæmorrhoid cases, with no other symptom than pain at stool, when the sphincter was dilated by the fæces.

Now what most concerns us in this type of dysentery is the pathology and the relation of the amœbæ to the disease.

The part mostly affected is the lower bowel, from the anus to the transverse colon, but the whole tract from the ileocæcal valve down may be diseased.

The type of inflammation is ulcerative; the amœbæ probably find their way to the simple tubular glands, which are larger in the small intestine, and penetrate the goblet cells, where they weaken the surrounding epithelium by pressure and allow the pyogenic organisms to finish the process of destruction.

Macroscopically, some of the ulcers may be well defined, but generally the destruction extends widely under the mucosa, leaving great bridges of thickened tissue with sloughing edges.

Amœbic dysentery terminates in recovery; or is complicated by abscess of liver, or sprue may intervene, or the patient be carried off by some intercurrent disease, such as tuberculosis or pneumonia.

Sprue is one of the most frequent sequelæ of this form, especially in the Philippine Islands. In every one of over fifty cases of sprue in my service in the Philippines I obtained a history of previous dysentery.

The acute bacillary dysentery, as seen in the Philippines, is one of the most directly dangerous affections of the intestinal canal that one meets with, excepting cholera.

Here we have an acute infectious disease caused by a specific microorganism, and one the clinical picture of which is quite different from the former described. In this the patient is entirely prostrated from the onset; death may take place in a few days from an overwhelming infection. Locally, the tenesmus is very great, and the evacuations are frequent and contain quantities of mucus the color and consistency of currant jelly. The upper digestive tract shares in the toxæmia, as is evidenced by a dry, brown, highly coated tongue and irritability of the stomach. The patient may be very delirious on the second day and hopeless on the third or fourth.

A pronounced rise in temperature at the onset with tendency to become subnormal in a few days seems to distinguish this from the preceding described affections.

The spleen and liver are enlarged, and pain is elicited by pressing the lower ribs over the region of the liver.

The post mortem appearances are rarely those of ulceration, except in cases that have become subacute or chronic.

The large intestine and lower part of the small intestine participate in the inflammation; the mucosa is greatly swollen and thickened; the follicles are enlarged; and the mucosa is dotted over with punctate hæmorrhages and coated with a seminecrotic mucous layer rich in cells.

The most severe type exists in the Philippines, and especially in the island of Luzon.

The Shiga bacillus has been isolated in some of the dysenteries in Puerto Rico and Cuba, and lately a bacillus of this type has been found in the summer diarrhœa of infants in the United States, but apparently the germs differ in virulence in these countries.

In Puerto Rico I noted a form identical with that above described, but much milder in degree, attended by slight mortality and with greater tendency toward chronicity and the after development of sprue.

The blood of these cases agglutinates a pure culture of Shiga bacillus, and the post mortem lesions are the same.

Our Subscribers' Discussions.

A SERIES OF PRIZE ESSAYS.

[Questions for discussion in this department are announced at regular intervals. So far as they have been decided upon, the further questions are as follows:

XXX.—What are your achievements in improvising surgical instruments and appliances? (Under adjudication.)

XXXI.—By what means have you ever saved a person supposed to have been drowned? (Under adjudication.)

XXXII.—How do you treat insomnia? (Answers due not later than August 16th.)

Whoever among our subscribers (with the limitations mentioned below) answers one of these questions in the manner most satisfactory to the editor and his advisers will receive a prize of $25. No importance whatever will be attached to literary style, but the award will be based solely on the value of the substance of the answer. It is requested (but NOT REQUIRED*) that the answers be short, if practicable, no one answer to contain more than six hundred words.*

Only subscribers to the New York Medical Journal and Philadelphia Medical Journal *(including regular and volunteer officers of the Medical corps of the United States Army, Navy, and Marine Hospital Service, commissioned or under contract) will be entitled to compete, and all persons known to be engaged in medical journalism are disqualified. This prize will not be awarded to any one person more than once within one year. Every answer must be accompanied by the writer's full name and address, both of which we must be at liberty to publish.]*

The prize of $25 for the best essay submitted in answer to question XXIX has been awarded to Dr. Samuel Stalberg, of Philadelphia, whose article appears on page 62 in our issue for July 9th.

PRIZE QUESTION NO. XXIX.

THE TREATMENT OF NOCTURNAL INCONTINENCE OF URINE.

(Concluded from page 64.)

Dr. Frank T. Davis, Jr., of Lansdowne, Pa., writes:

When called upon to treat nocturnal incontinence of urine, we must not lose sight of the fact that it is a symptom rather than a disease.

The age, the general constitution, hygienic surroundings, social position, and past and present history of the patient must be taken into careful consideration before we can hope to ascertain the ætiology of any individual case that comes under our observation. In the extremes of age, youth, and senility, nocturnal incontinence of urine is most frequently encountered; of the two, children up to the age of sixteen years furnish the larger number of cases. In old age it is usually due to atony, relaxation or paralysis of the sphincters governing the exit of the bladder, and is frequently associated with vesical calculi and cystitis. It should never be confounded with the incontinence due to retention, which is so frequently met with in those of advanced years. Nocturnal incontinence in middle life is frequently an early symptom of brain or cord lesions; such cases should come under the scope of the neurologist.

In children nocturnal incontinence is usually due to spasmodic contractions of the detrusor muscular layer of the bladder; it is a reflex phenomenon, due to an increased reflex excitability of nervous mechanism. An examination of the external genitalia will frequently reveal the presence of seat worms, contracted meatus, contracted or adherent prepuce, balanitis, pruritus, vulvitis, or allied conditions.

The type of children most frequently suffering from nocturnal incontinence are weak, anæmic, poorly nourished individuals, the majority of them being from the lower walks of life.

In all forms of nocturnal incontinence rest is of prime importance, the diet must be restricted, hygienic measures supported, and personal cleanliness insisted upon. The patient, if possible, should be kept in bed and the ætiological factor determined and erased.

Such foods as are easily digested, as are nourishing, and as do not cause concentration of the urine are indicated. Acids should be restricted and large quantities of water administered. Particular care must be paid to the general health of the patient, and remedies that will promote general nutrition, such as arsenic, iron, strychnine. and cod liver oil, will be found beneficial in a large majority of cases.

In atony, relaxation, or paralysis of the sphincters of the bladder, the resulting incontinence can often be overcome by the employment of one drop doses of tincture of cantharides three or four times a day, well diluted. Indeed, in such cases cantharides acts almost as a specific. Liquor potassii arsenitis may with advantage be alternated with cantharides in treating nocturnal incontinence due to the conditions mentioned. The galvanic current is very useful in overcoming obstinate cases. The best means of employing it is by the use of a urethral electrode, the same to be introduced up to the bladder. The positive pole is to be placed over the fourth or fifth lumbar vertebra and the negative attached to the urethral electrode. Only a very mild current can thus be employed, but after repeated applications decided improvement will be noticed.

When nocturnal incontinence occurs in children of the nervous type the bromides and belladonna are useful. When any preparation of belladonna is used, it should always be preceded, three or four days, by the frequent administration of an alkaline diuretic.

If cystitis is the cause of the nocturnal incontinence, the bladder must have absolute rest. This is best accomplished by continual catheterism, a self-retaining catheter being the best instrument to employ. It should be removed every day and sterilized. The bladder should be thoroughly irrigated at frequent intervals with hot saline solution or sterile water. Salol administered internally will also do good. In such cases the urine must be rendered non-irritating.

When incontinence occurs as the result of the presence of vesical calculi, immediate removal of the stone is essential for a complete recovery.

When nocturnal enuresis is the result of concentrated or highly acid urine, the administration of an alkaline diuretic every four hours will relieve the condition. Some of the salts of potassium are very useful in cases of this description. The acetate of potassium combined with the bromide of potassium will be found beneficial.

If the incontinence is due to the presence of seat worms in or around the genital organs, their removal must be accomplished and personal cleanliness enforced. When an adherent or contracted prepuce is the cause, circumcision must be performed. If contraction of the meatus is the cause, surgical correction of the abnormity will relieve the incontinence. Vulvitis and balanitis are frequently the cause of nocturnal enuresis, and must be treated by the local application of antiphlogistic remedies. In all cases of nocturnal incontinence, it is wise to examine the urine both microscopically and chemcially, as it is often necessary to ascertain the cause by exclusion.

Assistant Surgeon Thomas W. Salmon, of the Public Health and Marine Hospital Service, after some remarks on the ætiology, writes:

The treatment of all cases should consist in placing the patient under the best hygienic conditions possible. A quiet, well ordered life, avoidance of excess in food or in mental exertion, avoidance of excitement, particularly that induced by punishment or threats, and regular hours for sleep are essentials in the management of a case. The use of coffee very frequently prevents the successful treatment of a case. The usual treatment is of much importance, and the child should be encouraged and rewarded in order to secure his cooperation. Systemic fault, such as anæmia or debility, should, of course, receive appropriate treatment.

Attention should be directed to the important element of habit, and during the day the child should be trained to go for a reasonable time after feeling the desire to urinate, without emptying the bladder. This must be done cautiously, however, or else by overdistention of the bladder the condition may be aggravated. In boys the meatus may be sealed at bedtime with a drop of collodion, which can be removed with the thumb nail in the morning. In cases where hyperæsthesia exists and the presence of a drop of urine at the meatus is sufficient stimulus to cause the involuntary evacuation of the bladder, this procedure is useful.

With this general treatment instituted, the local conditions should receive careful attention. Hyperæsthesia of the bladder may be relieved by tincture of hyoscyamus. Phimosis or redundancy of the prepuce, however slight, should be relieved by circumcision. The possibility of adherent clitoris should not be overlooked in female children.

If weakness of the sphincter is thought to be the cause of the trouble, cold douches to the perinæum, electricity, rhus aromatica, and strychnine are indicated.

Nearly all the drugs in the formidable list of those which have been recommended for the treatment of enuresis have for their object the lessening of reflex activity.

Whether this is the only action of atropine or not, it is certain that it is the most reliable remedy we have for nocturnal incontinence of urine. Where belladonna and the other drugs fail, success often follows the use of atropine, and I have never seen a case in which a prolonged trial of atropine resulted in no improvement, benefited by any other medicinal treatment. There is no better way of administering it than that suggested by Holt. The drug is supplied in a solution, one drop of which equals $^1/_{1000}$ of a grain. The dose for young children is about a drop for each year of age. This should be gradually increased, until $^1/_{100}$ of a grain is given three times a day. The hours at which it is given are 4, 7, and 10 p. m. This, a matter of importance, as the maximum effect is thus obtained when it is most needed. The necessity of continuing the treatment for many months cannot be too strongly urged upon parents and, the use of the drug should be continued for some time after an apparent cure has resulted.

There is one other method of treatment which should be mentioned with the use of atropine, and that is circumcision. In cases where *no abnormity of the prepuce exists*, circumcision with the use of atropine will result in recovery where the prolonged use of atropine fails. The glans loses much of its sensitiveness when fully exposed by a somewhat radical circumcision, and the results seem to indicate that by the removal of the prepuce the excitability of the spinal centre for micturition is directly diminished.

Mention should be made of the recent use of frequent injections of normal salt solution in the spinal canal. Some striking results have apparently followed this treatment in cases of diurnal and nocturnal incontinence of urine in the Manhattan State Hospital for the Insane.

Dr. Evelyn Witmer, of Philadelphia, writes:

When there is brought to us for our advice and care a child suffering with incontinence of urine, all our knowledge, experience, and skill are taxed to the utmost. After listening carefully to the family and personal history the mother is able to give us, noting particularly neurotic affections and the infectious diseases of childhood, we strip the child and examine it systematically, to find whether there may be any organic cause. As incontinence is not usually a disease *per se*, but merely a serious symptom of many diseases, we examine the child for evidences of any of these affections of which enuresis is a symptom.

The first thought being phimosis and adhesions around the foreskin, the penis is carefully studied, and if any defect is found the adhesions are broken down, the foreskin pushed back, and if necessary circumcision performed. In a female child the clitoris should not be neglected, as I have seen serious irritation caused by adhesions around the glans.

We should then examine for stone in the bladder, diabetes mellitus, or any kidney disease or the many lithæmic conditions which are so often the cause of incontinence of urine in childhood. If any one of these diseases is found, thorough appropriate treatment is instituted. Calculi are removed, lithæmic conditions rectified, and the diseases of the kidneys vigorously treated.

The heart is examined for any evidences of endocarditis due to previous attacks of rheumatism, which may have trained the bladder to its present faulty condition of function. Bladder irritation in rheumatism is caused in two ways, either by the action of the nefarious products upon the mucous membrane directly or indirectly upon the nerve supply.

The nutrition of the child, and the stools are studied, for evidences of parasites which also may cause irritation. A possible nervous disease or even neurotic tendencies are studied, for these often are the causes of enuresis.

If none of these diseases is found, and the child appears to be healthy, except for this frightful irritating symptom, the disease is one of itself *per se*—and we have to treat it as such.

Externally, of great benefit are the local applications of hot and cold douches given alternately for fifteen minutes before sleep, also the training of the child to urinate immediately before going to bed, and at first to arouse him at a regular period once in the night for the same purpose. Electricity and massage are given three times during the week, for fifteen minutes, to strengthen the weak muscles.

Of the medicines used internally, strychnine, $^1/_{100}$ of a grain every four hours, to a child of five years; atropine sulphate, $^1/_{250}$ of a grain, or its equivalent of belladonna and the various tonics, especially phosphates, have all been found of use in varying cases.

In closing this article I should like to bring before your notice a rather interesting patient. A colored boy, five years of age, with a history of absolute loss of control of the bladder, was brought to me eighteen months ago. As a great degree of phimosis was found, circumcision was performed. The child was benefited in so far that he now had no trouble at night or any other time, except when exposed to the cold or winds, when, even if he had just urinated, the act would again occur involuntarily and in spite of his strongest force of will. The child since then has been put through all the treatments with no success until, three months ago, deeming the case one of excessive irritability of the blood vessel walls, I gave him 30 drops of fluid extract of ergot every four hours, together with the local application of the hot and cold douche. After three weeks of this treatment he was absolutely cured.

Dr. L. H. Bernd, of Philadelphia, writes:

In treating incontinence many things must be considered. The history of the individual is of great importance. We must recognize primarily that incontinence is a symptom and not a disease in itself. A thorough examination of the patient is of great importance. His habits, his diet, the number of times he urinates during the night, and all minor points are to be considered. Careful examination of the patient usually gives you a clue to the treatment.

If adenoids are present, have them removed as soon as possible. Slight ocular defects should be corrected by proper glasses. Many reflex disturbances are due to such troubles. Another seemingly simple thing is decaying teeth. People as a rule object to spending money on the primary, or temporary, teeth. Many a child suffers in general health through the infection from bad teeth.

The thorax should be carefully examined for any lung or heart symptoms, also evidences of rhachitis. Always be suspicious of cases where there is an accentuation of the aortic second sound. It may be a possible sign of kidney trouble. The urine should be carefully examined, not only chemically, but with a microscope. Chronic parenchymatous nephritis sometimes does not show albumin in appreciable quantities chemically, but with a microscope we find the casts. Of course, uric acid can easily be detected. The genitalia should be carefully inspected, also the anus.

The first thing to do is to regulate the diet. No tea, coffee, alcohol, cakes, candies, or sugars, and very little if any meat, should be allowed. The patient may have milk, cocoa, eggs, toast, green vegetables, and fruits, also water. His largest meal should be at midday. The urine should be held as long as possible during the day, to accustom the bladder to holding it longer at night. The patient urinates before going to bed, and is to be wakened every three hours. His room must be well ventilated and the covering neither too heavy nor too warm. Every day a bath of warm water to which rock salt has been added should be given, followed by a massage with some fat, preferably olive oil.

Certain urinary antiseptics have been tried with varying results. Ergot is sometimes efficient when there is a hyperæmia of the prostate. A cold sound passed into the bladder is at times curative. At the same time any stone can be felt and a diagnosis made.

Electricity, one pole to the base of the bladder and the other at the lumbar region, is to be tried. A cold douche to the spine is of great value, not only by its tonic action, but by its mental effect also. The writer has seen a case cured after one or two douches, which caused the boy to get up immediately on the desire to urinate.

An adherent prepuce must be loosened, and if much phimosis exists circumcision is indicated. That circumcision is an absolute cure is a foolish idea. Many cases presenting themselves have previously been circumcised.

Tincture of belladonna is useful at times, but should be held back until other remedies fail. Sometimes enormous doses can be taken without effect. Of course, in adults, where there is a stricture or hypertrophied prostate, they should be treated. Certain cases of nocturnal enuresis are a form of epilepsy. These are better controlled by combined antipyrine and sodium bromide. Thread worms, pediculi, and skin eruptions around the anus and vulva should be treated. It is to be remembered that the most minute details are to be watched in such treatment, as sometimes seemingly insignificant causes are at the bottom of the disease.

Therapeutical Notes.

Whooping Cough.—*Presse médicale*, for May 14, 1904, quoting *Journal de médecine de Paris*, for March 27th, gives:

℞ Syrup of belladonna......50 grammes ($1^2/_3$ ounces);
Syrup of valerian } of each............25 grammes
Syrup of digitalis } ($^5/_6$ ounce).
M. A coffeespoonful represents 5 milligrammes ($^3/_{40}$ grain) of alcoholic extract of belladonna.

For children less than two years of age, we prescribe half a coffeespoonful and increase by a halfspoonful every second day till two coffeespoonfuls are taken daily. For children from two to five years of age the dose may be increased to six spoonfuls daily. This dose is sufficient for older children and should be increased only if the cough is very intractable; in which case 75 to 150 minims may be added to the daily supply. The syrup may be given pure, or mixed with simple syrup or milk.

Tuberculous Angina.—*Archives de médecine et de chirurgie spéciales*, for June, 1904, advises a highly nitrogenous diet with the administration of 5 drops of tincture of iodine in a half glassful of sweetened water before each meal. In addition cod liver oil should be given in winter and syrup of the iodide of iron in summer. As a local treatment:

℞ Tincture of iodine.........2 grammes (30 minims);
Neutral glycerin............15 grammes (½ ounce).
M. For painting.

The following may be used:

℞ Chromic acid................1 gramme (15 grains);
Distilled water.............4 grammes (1 drachm).
M. Dissolve; cauterize the lesions with a small brush slightly wetted in the solution.

Internally, a bitter tonic may aid the alternative treatment:

℞ Extract of cinchona.................2 to 6 grammes (30 to 90 grains);
Tincture of cinnamon......5 grammes (75 minims);
Syrup of bitter orange peel..30 grammes (1 ounce);
Distilled water...........120 grammes (4 ounces).
M. Two tablespoonfuls daily.

Enemata in Ulcer of the Stomach.—Professor H. Lenhartz has recently urged the value of substantial and strengthening diet in cases of gastric ulcer. Other practitioners suppress all mouth feeding and administer nutrient enemata. According to *Semaine médicale*, for June 1, 1904, Pasteur, of the Middlesex Hospital, London, has had excellent results from the use of simple hot water, administered per rectum every four hours. He begins by administering 5 to 6 ounces and increases the quantity by one ounce each time, till the dose reaches 10 ounces, an amount which he has not found it advisable to increase. The enemata are continued for a week, no food being given, and Pasteur has even kept a patient exclusively on the hot water for three weeks without untoward result. The treatment is really a disguised starvation and replaces nutrient enemata to advantage, because of the latter only a very small part is absorbed, and the hot water is easily and quickly prepared.

Toothache.—In the absence of a dentist, the country practitioner may find useful the following hints from *Journal des praticiens*, for June 4, 1904. For caries:

℞ Tincture of benzoin........10 grammes ($^1/_3$ ounce);
Oil of cloves...............2 grammes (30 minims).
M. Apply to cavity on a small piece of cotton.
℞ Tincture of benzoin........6 grammes (90 minims);
Chloroform ....4 grammes (1 drachm);
Carbolic acid.............2 grammes (30 minims).
M. Use in the same manner as the foregoing.

This application may remain forty-eight hours, when it may be renewed or the tooth properly filled. In caries of the third degree where the pulp is exposed, a morsel of the following, the size of a pin's head, may be applied to the pulp:

℞ Cocaine hydrochloride } of each, equal parts.
Morphine hydrochloride }
Oil of cloves, enough to make a paste.
M. Cover with gutta percha.

Solution of suprarenal extract may replace the oil of cloves.

If it devolves upon the physician to destroy the pulp, he should use:

℞ Arsenious acid..............1 gramme (15 grains);
Cocaine hydrochloride......5 grammes (75 grains);
Oil of cloves or solution of
Suprarenal extract, enough to make a thick paste.
M. Apply for twenty-four hours; to be followed by filling.

Where periosteitis exists, the tooth should be cleaned and the gums painted morning and evening with tincture of iodine or equal parts of tincture of iodine and tincture of aconite. The gum may also be cauterized twice a week.

Subgingival injections may relieve:

℞ Cocaine hydrochloride...4 centigrammes ($^3/_5$ grain);
Antipyrine ....40 centigrammes (6 grains);
Distilled water..............1 gramme (15 minims).
M. Inject 5 to 10 drops under the gum.

A simple and usually effective poultice may be made by boiling figs in water, cutting them in two and applying to the swollen gum every half hour.

Toothache may arise from external causes, osteitis, pressure from a tumor, etc., when the treatment will vary accordingly.

A New Local Anæsthetic.—Pinet and Blatter, according to *Bulletin commercial* for May, 1904, have communicated to the *Société d'odontologie* their researches on yohimbine hydrochloride which affords twelve minutes of complete anæsthesia in subgingival injections. It has the disadvantage of being vasodilator, allowing some hæmorrhage, but may replace cocaine, when desired, in tooth extractions and operations on the cornea. A 1 per cent. solution is sufficiently strong.

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THE HYGIENE OF THE BARBER'S SHOP.

Wherever stringent municipal ordinances are not enforced with regard to the hygienic management of barbers' shops, medical men should be untiring in cautioning both the barbers and the general public as to the dangers of transmitting disease in the operations of shaving and hair dressing, and instructing them in the means to be taken to reduce these dangers to the minimum. The subject is by no means trivial, and we are glad to see that Dr. Calmette, of the Pasteur Institute of Lille (*Echo médical du nord,* June 19th), has taken the trouble to prepare quite an elaborate article on it.

M. Calmette gives a list of diseases the subjects of which should have their hair and beard attended to at their own homes. It includes ringworm, favus, sycosis, herpes circinatus, impetigo, eczema, acne, molluscum contagiosum, ecthyma, follicular inflammation, syphilis, scabies, and phtheiriasis. This strikes us as a generous list, but it is well to be on the safe side. The author thinks that each chair should be enclosed to prevent the floating of scales, etc., from one person to another, but it may be questioned, we think, if the confinement of such material thus occasioned would not on the whole make it all the more offensive and deleterious whenever it was occasionally stirred up.

The implements used by the barber should be sterilized after each occasion of his ministering to a customer. Scissors and clippers, he says, can readily be cleansed by means of boiling water, provided they are so constructed, as they always should be, that their parts may readily be separated. It may be well to add a little sodium carbonate to the water, about an ounce and a half to a quart. Razors with metallic handles, the only kind to be recommended, may be treated in the same way, but, for some reason which he does not indicate, M. Calmette thinks that, instead of being dried after they are boiled, they had better be closed and kept in a cold saturated solution of sodium carbonate, which, he says, will not injure either their temper or their edge, and will not rust them.

It is impracticable to disinfect razor strops, but no danger can lurk in them if they are used only for sharpening razors that have previously been disinfected. Combs and brushes are best treated with a five per cent. solution of lysol, which is a mixture of cresylic acids saponified and rendered soluble by means of an alkali. Towels and napkins should not be used on more than one person before being disinfected, preferably with boiling lye. Pomade sticks and sponges should never be used, and the powder puff may be replaced by a powder blower. The floor should not be swept dry, and the walls and wood work should be wiped frequently with a moist cloth.

The "aseptic barber's shop" is even now advertised to some extent in our cities, and we feel sure that the manifestation of some fastidiousness on the part of the public will before long lead to a general observance of asepticism by the barbers, for those who fail to observe it will gradually lose their patrons.

A CURIOUS EFFECT OF ANTIPYRINE.

We are all aware that antipyrine sometimes gives rise to certain cutaneous manifestations, but it must be seldom that it causes the peculiar condition first noticed by Fournier and called by him *la verge noire*. It was five years ago that M. Fournier called attention to the black spots which he designated by that name. A case was recently reported to the Hospital Medicochirurgical Society of Nantes by Dr. H. Malherbe (*Gazette médicale de Nantes,* June 18th), and it appears to be the second one on record of such lesions confined to the penis.

According to M. Malherbe, the occurrence of black spots as a result of the ingestion of antipyrine is confined to the male sex, and the spots seem to have a special predilection for the penis. The spots, which are variable in number and size, are sometimes seated on a diffuse area of redness, with œdema and swelling, and their appearance may be preceded by itching. Fournier's observations go to show that the black spots are sometimes accompanied by deep red spots on other parts of the body.

In M. Malherbe's case, that of a syphilitic, thirty years old, always of good general health, the penis was the only part affected, a black spot occupying the entire upper surface of the glans. Its appearance followed in about six hours upon the ingestion of twenty-two grains of antipyrine for an attack of migraine, an affection to which the man had been subject for fifteen years and for which he had often taken from fifteen to thirty grains of the drug without any unusual consequence. In this case there was absolutely no other lesion. The discussion brought out from M. Malherbe the statements that, in his opinion, the black color was probably due to congestion so intense as to lead to ecchymosis; that if there was no œdema the subject of such spots might go on taking antipyrine without aggravating the affection; and that some peculiarity of the person might be in part the cause of the skin trouble.

Such an intense congestion as M. Malherbe spoke of seems, however, hardly compatible with the fact, as stated by him, that the tissues preserved their suppleness and all their other natural characteristics, and we should rather be inclined, as he seems to have been at first, to regard the lesion as analogous to the fixed erythematopigmentary appearances described by Brocq. These black spots, it seems, disappear spontaneously, but very slowly.

THE RADIOTHERAPY OF NEURALGIA.

Important as it is that experiments should be multiplied in the matter of the effects of the radiant activities on such formidable diseases as cancer, let us not overlook the practicability of applying them for the relief of pathological conditions that involve no such lethal results as ordinarily, almost invariably, mark the termination of a malignant growth. This idea is evidently entertained by so experienced an observer as Dr. Foveau de Courmelles, who contributes to the *Progrès médical* for May 28th an interesting article on recent therapeutic results in the use of radium and other sources of radioactivity.

M. de Courmelles refers to a note of his addressed to Professor Raymond last winter, in which he laid stress on the sedative properties of radium, thorium, the Röntgen rays, etc. On the strength of experiments on mice performed by M. Danycz, of the Pasteur Institute, and the paralytic symptoms produced, he says, the resulting sedation seems due to paralysis of the sensory nerves of the region treated, a paralysis which may by repeated subjection to the rays be carried to the point of deadening of the nerve fibres equivalent to the effects of stretching or section of the nerve, with a sort of elective action on the morbid tissues. Pain, whether that of facial neuralgia or that of cancer, he adds, may be treated with success by means of local applications of radium chloride, sometimes as frequently as three or four times a day, each application lasting for a quarter of an hour, but he has found it simpler and free from the risk of dermatitis to apply plasters of oxide or nitrate of thorium.

Thorium, says M. de Courmelles, may be regarded as a "poor relation" of radium, possessed of no phosphorescence and of only two or three times the radioactivity of uranium. It may be left applied without danger, and the cure of very obstinate facial neuralgia obtained. A plaster of oxide of thorium is made in the shape of a sort of varnish, or the powder may be wrapped in tinfoil and applied to the seat of pain. If this is reinforced by the use of radium, the result is reached more speedily. The action of the radium is concentrated by the tinfoil wrapper of the thorium, and the latter contributes its own power.

The author refers to three cases of the successful employment of this treatment of facial neuralgia of several years' duration, in two of which the nerve had in vain been stretched and then divided. The simultaneous use of radium and thorium effected a cure in from three to eight days. Besides being free from danger, thorium has the advantage of being cheap. He adds that applications of acid nitrate of thorium, together with those of the high frequency current, have given excellent results in cases of lupus erythematosus. Apparently thorium is an agent from which much may be expected in therapeutics.

THE FAMILY PHYSICIAN'S CLAIM TO A CASE.

II.

With the best of motives, interference with other physicians is inevitable. Physician A. is summoned by telephone to a new address. Perhaps the sender of the message hangs up the receiver before any questions can be asked. Perhaps the speaker has no personal knowledge of the facts of the case, but is merely performing an errand for a friend. Perhaps the question of the physician as to a previous attendant is evaded or falsely answered. At any rate, he responds to the call and is embarrassed by meeting Dr. B., by finding Dr. B.'s name on a prescription filled the day before, or by having Dr. B. call his attention more or less good naturedly to the fact that the case belonged to himself. If the discovery is made at the first visit, Dr. A. is placed in the predicament that if he accepts the case he is clearly interfering with the right of Dr. B.; if he refuses, he will receive no fee for a trip made in good faith, and he will probably not benefit Dr. B., as the case will be taken from his hands in either event. Yet I believe that, in the long run, the best interests of all persons concerned, including the patient, are best served by an absolute refusal to accept a case which another physician has reason to believe to be under his own care. It is unnecessary to consider analogous circumstances occurring in office practice.

Specialists are often accused of disregarding the rights of the family physician, and I have been informed of most flagrant abuses, as when a patient, referred to a specialist by the regular attendant, was, in turn, advised to go to another general practitioner who was one of the set to which the specialist belonged. Such offenses against ethics—indeed, against common honesty—require no discussion. More frequently the charge is that the specialist assumes a case without the initiative of the regular attendant. This charge is often true, but I must confess to considerable sympathy for the specialist. In many instances patients and families drift into the same allegiance to a dentist, oculist, or, less frequently, other specialist which they feel toward the family physician. I recall one family which, by a series of coincidences, has been treated by a digestive specialist for many years and has been referred by him to general practitioners as the need has arisen. Undoubtedly, too, dentists and oculists often assume the rôle of general adviser on account of the infrequency of the occurrence of disease in the ordinary sense.

In discussing the ethical standing of specialists, I refer only to those practitioners who actually limit their practice, with reasonable allowance for emergent services and borderline cases. A man who attempts to pose as a specialist while carrying on a general practice deserves no recognition as a specialist, although, in any given case, we may concede his ability to render the needed service. A specialist *bona fide* voluntarily relinquishes his legal right to attend to all classes of cases indiscriminately. It seems to me that he thereby acquires the right to treat all patients in his domain who seek him spontaneously, provided only that no other physician is in actual attendance. As already mentioned, it is much easier to decide as to interference when the patient is confined to the house than in ambulant cases, which latter comprise the bulk of all special practices, excepting consultations and cases referred to surgeons. Through a lack of appreciation of medical etiquette by the laity, it occasionally happens that a specialist is summoned to examine a case out of town or is consulted at his office by a patient from a distance, without the initiative of the attending physician. In such cases the expense and inconvenience involved in a strict interpretation of ethical principles seem to justify the specialist in accepting the case as consultant, immediately communicating with the attendant or deferring actual professional ministration until the presence or consent of the attendant can be secured, if this course is practicable. This, at least, is the policy suggested by a common sense consideration of the matter, in the best interests of all concerned. We must not forget that any enforcement of ethical principles which suggests to the laity their own detriment or considerable inconvenience places the profession in a false light and particularly damages the interests of the physicians immediately concerned.

It is difficult to define when an ambulant case ceases to be under the charge of a particular physician. For example, from the patient's standpoint, he has been two or three times to see a physician that his wife likes, but with whom, for one reason or another, he does not intend to continue. On the other hand, the physician in question may very naturally consider himself the family physician and the case as under his care, even if he has not seen the patient for several weeks. Patients, too, often have very exaggerated notions of the benefits of specialism, and divide themselves into parts to a degree scarcely warranted before the necropsy table is reached. Thus, a physician in eye and ear practice may find his patient consulting a laryngologist for an ear trouble while under treatment by the former for some ocular condition, or a patient with Graves's disease may place himself under the care of his family physician and, at the same time, seek from the specialist relief for the inevitable nervous symptoms. I believe that the best rule, in all such cases, is for the various physicians to consult with one another informally and in a friendly spirit, to humor the patient so far as practicable, but to decide among themselves when the specialism has gone too far and in whose hands the case shall be left. The best ethics is by no means the strictest interpretation of an arbitrary rule.

A. L. Benedict.

A DIETETIC EXPERIMENT ON A LARGE SCALE.

As we go to press a meat famine is imminent. Little as we may be disposed to question the sincerity or the accuracy of those vegetarians who, sometimes ostentatiously, call attention to their excellent state of health and impute it to their abstention from meat, we must admit that we have some misgivings concerning the results of vegetarianism suddenly imposed upon an entire people. What one does voluntarily in the way of dietetic performances is probably less apt to induce untoward consequences than that which is forced upon a person—the involuntary experiment to end nobody knows when. Then, too, there is the gorging with meat which is pretty sure to ensue upon the cessation of the famine, and out of it the vegetarians are tolerably sure to try to make capital.

SODIUM OLEATE IN THE TREATMENT OF CHOLELITHIASIS.

Perhaps some of our readers will be reminded of the reputed efficacy of olive oil in the treatment of gallstones when they learn that Bauermeister (*Therapeutische Monatshefte,* May; *Berliner klinische Wochenschrift,* June 20th) recommends the use of acid oleate of sodium, with small doses of salicylic acid, for cholelithiasis, cholangeitis, and similar affections, even when all other internal remedies have failed, though in acute attacks of gallstone colic he uses also morphine and atropine. The dose of the oleate was not mentioned.

THE CONEY ISLAND INCUBATOR,

The interest in the incubator at Luna Park, Coney Island, continues unabated and crowds are daily to be seen watching the prematurely born infants there on exhibition. Eighty-five per cent. of these children are saved, former conditions saving only ten per cent. The average stay of a baby in the incubator is three months, after which it is placed in what may be called the postgraduate department, a nursery, where it remains till its attending physician decides that it is ready for the open air and the regular life of a normal child. The fascination of the exhibit for women is very marked.

THIOSINAMINE IN CONTRACTURES.

If thiosinamine continues to prove useful in the treatment of cicatricial and other contractures, we need not ignore it for lack of a satisfactory explanation of its efficacy. Lengemann (*Deutsche medicinishe Wochenschrift,* 1904, No. 13; *Zentralblatt für Chirurgie,* July 2d) reports that two cases of Dupuytren's contracture previously recorded by him as having been treated with thiosinamine have shown no relapse, and adds an account of traumatic contracture of the thumb successfully treated in the same way. The drug is injected into the cicatricial tissue. Efficacious as it is, he says, it should not take the place of massage and kinetotherapy, but should be used in conjunction with them.

BLOODY MILK PRECEDING MASTITIS.

At a recent meeting of the Obstetrical Society of Paris (*Presse médicale,* June 29th) MM. Bouchacourt and Jeannin reported the case of a young woman, pregnant for the first time, from whose breasts drops of blood flowed for ten days before her confinement, and bloody milk for a week after the birth of the child. It is said that there were absolutely no fissures, but staphylococci and the colon bacillus were found in the secretion. Mastitis followed, and after that the milk was normal. It would be interesting to know if there was any connection between the bacteria found and the hæmorrhage into the milk ducts.

MANUSCRIPT STAMMERING.

At a recent meeting of the French Society of Hypnology and Psychology (*Archives de neurologie,* June), M. Berillon gave the name of *bégaiement graphique* to the difficulty experienced by some nervous persons in writing even a signature in the presence of a number of other people. He thought the trouble was analogous to verbal stammering, and that it was amenable to hypnotic suggestion.

News Items.

Society Meetings for the Coming Week:

MONDAY, *July 18th*.—New York Academy of Medicine (Section in Ophthalmology); Chicago Medical Society.

TUESDAY, *July 19th*.—New York Academy of Medicine (Section in General Medicine); Buffalo Academy of Medicine (Section in Pathology); Ogdensburgh, N. Y., Medical Association; Syracuse, N. Y., Academy of Medicine; Medical Society of the County of Kings, N. Y.; Baltimore Academy of Medicine.

WEDNESDAY, *July 20th*.—Woman's Medical Association (New York Academy of Medicine); New Jersey Academy of Medicine (Newark); New York Society of Dermatology and Genitourinary Surgery (private); New York Academy of Medicine (Section in Genitourinary Surgery).

THURSDAY, *July 21st*.—New Bedford, Mass., Society for Medical Improvement (private); Atlanta Society of Medicine.

SATURDAY, *July 23rd*.—Harvard Medical Society, New York (private).

NEW YORK.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending July 9, 1904:

	Week end'g July 9.		Week end'g July 2.	
	CASES.	DEATHS.	CASES.	DEATHS.
Measles	261	15	369	23
Diphtheria and croup	297	29	386	50
Scarlet fever	95	13	130	9
Smallpox	1	..	1	1
Chickenpox	29	..	61	..
Tuberculosis	359	136	330	150
Typhoid fever	39	9	33	12
Cerebrospinal meningitis	..	34	..	39
Totals	1,081	236	1,310	284

Dr. Charles F. McKenna resigned on July 8th from the Municipal Explosives Commission.

Dr. William R. Pryor, professor of gynæcology at the New York Polyclinic Hospital, has been appointed attending gynæcologist to St. Vincent's Hospital.

Dr. Frederic Griffith has begun his vacation by walking from New York to Philadelphia. We understand the trip occupied three days, including all stops. One object of this trip was to deliver to Messrs. Saunders and Company the final proof pages of a book on surgery soon to be published by that firm.

Bellevue Hospital's Famous Ward 32.—In the last nine years there have been 51,000 alcoholic patients at Bellevue Hospital, not counting the repeaters. Of this number, 66 per cent. were between thirty and forty-nine years of age. A series of 125 cases has been studied, showing that as a rule male drunkards live longer than female. Seventy-five per cent. of all chronic alcoholics have fatty degeneration of the liver. Many have brown atrophy of the heart. The kidneys are never normal. Fifty per cent. of the drunkards have gastritis. By the coating of the tongue and the character of the tremor the length of a spree can be accurately determined. The drunkard often "sees things," but rarely has his sense of smell impaired. Patients who drink absinthe are particularly liable to convulsions.

Dr. Sumner E. Douglas, of Lake Placid, has been appointed interne in the Manhattan State Hospital at a salary of $50 a month and maintenance.

The Brooklyn Society for Neurology held its annual June meeting on Saturday, June 25th, at King's Park, Long Island, at the invitation of Dr. O. M. Dewing, retiring superintendent of the Long Island State Hospital. The members were met at the station by Dr. Dewing, who conducted them over the extensive grounds and buildings of the institution, a description of which will be found in our Miscellany columns. The wards, workshops, cottages, laboratories, etc., were inspected, and a somewhat novel entertainment was witnessed. In the recreation room, a large hall fitted with a stage and all the necessary properties for concerts, theatricals, etc., part of a demonstration of various details of medical and surgical procedure which had been given a few days previously by the nurses' graduating class of 1904, under the direction of the matron, Mrs. Thomson, was repeated. The following was the full programme, of which sections 2, 4, 6, and 7 were repeated for the benefit of the society:

1. Bed Making: Surgical Bed, Obstetrical Bed, Changing Linen.
2. Hydrotherapy: Wet Pack, Drip Sheet.
3. External Applications: Flaxseed Poultice, Turpentine Stupe.
4. Baths: Brand Bath—Typhoid, Sponge Bath—Massage.
5. Infants' Toilet.
6. Preparation of Operating Room: Asepsis and Sterilization.
7. Preparation and Serving of Meals: Use of Electric Range.

The demonstrations took place on the stage of the theatre, constituting a veritable theatrical performance in dumb show, the asylum orchestra playing incidental music. The performance was very successful and was watched with great interest by the physicians present. The preparation of an operating room was realistically carried out up to the time at which, the patient being fully under the anæsthetic, the surgeon took up his knife, when the curtain fell, reminding one of the serial novel that invariably ends with "To be continued in our next" just at the most exciting point.

The society was entertained in the Sun Parlor by Dr. Dewing with an excellent dinner, after which several most interesting cases were shown by four of the hospital staff. The general impression produced on the visitor was one of admirable administrative efficiency, the result of harmonious cooperation between the chief and an excellent staff of well trained nurses and capable internes. In fact, the high tone of the personnel of the institution impressed itself strongly on all present.

PHILADELPHIA.

Philadelphia Health Report.—*The Report on Contagious Diseases, compared with that of the previous week, is as follows:*

	Week end'g July 9.		Week end'g July 2.	
	CASES.	DEATHS.	CASES.	DEATHS.
Smallpox	1	..	2	1
Diphtheria	28	5	43	11
Scarlet fever	42	2	40	1
Typhoid fever	56	7	52	11
Consumption	..	47	..	67
Cerebrospinal fever	..	..	..	..
Totals	127	61	137	91

Infant Mortality.—During the week ending July 2nd there were 92 deaths in Philadelphia from bowel troubles, convulsions, marasmus, and inanition, an increase of 39 over the preceding week.

Epidemic of Typhoid Fever in a Camden Suburb.—There is a small local epidemic of typhoid fever in West Collingwood, N. J., a suburb of Camden. The disease is thought to have been spread by contaminated well water.

University Hospital Residents.—Dr. Fred H. Klaer, Dr. Robert L. Gray, Dr. Floyd E. Keene, Dr. Paul H. Biklé, and Dr. Paul A. Lewis, all of the class of 1904, medical department, University of Pennsylvania, have been elected resident physicians by the trustees of the University Hospital.

St. Mary's Hospital Residents.—The following graduates from Philadelphia colleges have been appointed resident physicians at St. Mary's Hospital: Dr. C. C. Sloan, Dr. A. J. Reiner, and Dr. Thomas McGurl, of the University of Pennsylvania, and Dr. C. W. Schaubel and Dr. John Topper, of the Jefferson Medical College.

Poisoned After Eating Ice Cream.—On July 4th, a number of the residents of Lykens Valley, Pa., were poisoned by ice cream furnished by a prominent manufacturer. Those who ate the ice cream complained of severe, cramp-like abdominal pains within a short time. Dr. William Lehr, of Lykens, believes the condition to be a manifestation of ptomaine poisoning.

Free Maternity Hospital.—The Society of Free Maternity Hospital Service of Philadelphia has been abandoned. The organization was declared to be impracticable by the courts two years ago. Its 15,000 contribution boxes, which were scattered throughout the State, were confiscated and their contents used by its receiver, Ernest Lowengrund, to pay the indebtedness of the society.

In What Does the Practice of Medicine Consist?—In the case of "Dr." Thomas E. Eldridge referred to last week, Judge Davis ruled that the practice of medicine consisted in the offering of service and assuming the responsibilities to treat disease, whether by clairvoyance, electricity, or in any other manner whatsoever. The law demands that any one attempting to practise medicine shall possess the necessary learning and the mastery of the principles of those sciences which are included in medicine.

Criminal Negligence Responsible for Deaths.—The coroner has investigated the deaths of the three persons who were killed in the Arch Street fire, after an explosion of fireworks. The jury found that the owner of the building was criminally negligent in not providing fire escapes and other safe means of exit. It also found that the explosion of the fireworks, which started the fatal fire, was due to the gross negligence of the company having them for sale and that the said company violated an act of assembly in selling fireworks without a license.

Smallpox Quarantine.—There is only one house within the limits of Philadelphia which is at present under quarantine for smallpox. The bureau of health has begun house to house visits for the purpose of vaccinating all persons who have not been successfully vaccinated within the last two years.

Cases of Sunstroke.—On July 6th the maximum temperature in Philadelphia was 85°, and the humidity varied between 68 and 82 per cent. On July 7th the maximum temperature was 82°, and the humidity varied between 82 and 93 per cent. On July 8th the maximum temperature was 74°, and the humidity varied between 73 and 90 per cent. On the 6th one person died from the effects of the heat and five were treated in the various hospitals; on the 7th six cases of heat exhaustion or thermic fever were reported from the different hospitals. These reports are not quite accurate, because on an excessively hot day any person taken ill on the street and admitted to a hospital is reported as a heat case by the newspaper men, without waiting to learn the facts.

Fourth of July Accidents.—The celebration of the Fourth of July began on the second. On the second, third, and fourth of July, 296 cases were treated at the various hospitals, ranging in severity from burned fingers to gunshot wounds and fractures. In spite of the prohibition of the sale of dangerous explosives and the confiscation by the police of many toy pistols, there were forty-two cases of accident due to toy pistols, blank cartridges, giant crackers, or dynamite caps. Several fatalities have been reported and many bullet wounds were treated, some quite serious. Next in order is the report of the number of cases of tetanus that will develop after these accidents. In from five days to two weeks the various hospitals will receive cases of tetanus which will depend ætiologically on the slight wounds received on these three days.

Filtered Water and Typhoid Fever.—A statement issued by the chief of the Bureau of Filtration last week shows the beneficial influence of the filtered water now being supplied to the inhabitants of certain sections of the city. In the city generally, with a population of 1,293,697, there were between 70 and 78 cases of typhoid fever reported each week for three weeks in June. During the same three weeks, in a portion of West Philadelphia, with a population of 46,805, which was being supplied with filtered water, the greatest number of cases reported for any one week was two. In that portion of West Philadelphia not supplied with filtered water, with a population of 101,566, the cases reported ranged from 9 to 13 in the same three weeks. While the inhabitants of that portion of West Philadelphia which received filtered water forms but a small portion of the total inhabitants of the entire city the beneficial influence of filtered water on the typhoid fever incidence is clearly shown.

Resolution Concerning Contagious Diseases Adopted by the Board of Health.—The following resolution, which has been adopted by the board of health, will soon be sent to all practitioners of medicine and of veterinary medicine in Philadelphia:

Whereas, The list of contagious diseases hitherto required by law to be reported to the board of health, by no means includes all diseases of a transmissible nature, and

Whereas, For the protection of the public health, it is essential that this board shall have prompt and full information concerning the existence of all such diseases; it is therefore

Resolved, That all physicians having knowledge of the existence of cholera, chickenpox (varicella), diphtheritic croup, scarlet fever, typhus fever, cerebrospinal meningitis, relapsing fever, tuberculosis (in any of its manifestations), pneumonia, measles, glanders, erysipelas, plague, tetanus, smallpox (variola or varioloid), diphtheria, membranous croup, typhoid fever, yellow fever, spotted fever, malarial fever, leprosy, whooping cough, rubella, hydrophobia (rabies), puerperal fever, anthrax, trachoma, shall forward the same to this board on cards prepared for the purpose, at the earliest moment after the establishment of the diagnosis; and, be it further

Resolved, That all practitioners of veterinary medicine having knowledge of the existence of glanders (farcy), anthrax, tuberculosis, tetanus, rabies, in animals or in man, shall likewise report the same to the board with the utmost promptitude.

How to Keep the Baby Well in the Hot Weather.—The following circular has been prepared by Dr. Andrew Cairns, chief medical inspector of the Bureau of Health of Philadelphia, for wholesale distribution:

Nurse it.—Nothing equals mother's milk for a baby food. If you cannot nurse the baby, use fresh milk, which in hot weather has been boiled and prepared according to directions. Nurse the baby part of the time if you cannot nurse it all the time. Do not give it condensed milk or any prepared babies' food.

Feed or nurse it at regular intervals not more than once in three hours after it is six weeks old. Don't feed it simply because it cries. Decrease the amount of milk on very hot days. Too much food and too frequent feeding are among the commonest causes of sickness.

Bathe it daily.—The glands of the skin carry off nearly as much poisonous matter as the bowels. They both must be kept open in hot weather. Dry the skin well after bathing.

Air it.—Out of door air is necessary. Keep the head shaded from the direct sunlight. In hot weather take the baby out early in the morning before 9 o'clock, when it is cool, again late in the afternoon and early evening, but not late at night.

Keep it cool.—If it is bundled up too much in summer it will become overheated. The more nearly naked it is, the better, in extremely hot weather.

Keep it in a quiet place.—A baby's nerves are very sensitive. Continued noise sometimes causes sickness.

Give it water.—Between feedings give water freely, especially in hot weather. Use only water that has been boiled.

Give no fruit to a baby less than a year old. In summer give no fruit to a baby less than two years old. Fruit kills many babies.

Give no solid food to a baby less than one year old. For the first year of life the food should be all milk. For the second year, chiefly milk.

Call your doctor, or, if you have none, in summer, notify the Bureau of Health, and a doctor will be sent immediately.

When the baby has diarrhœa stop all food and give only barley water until the doctor comes.

GENERAL

New Jail Physician at York, Pa.—Dr. B. W. Shirey, of York, has been appointed by the county commissioners as jail physician to succeed Dr. S. J. Rouse, who has filled the position for a half dozen years. Dr. Shirey practiced for some time at East Prospect, and later was resident physician at a Baltimore hospital.

Statement of Mortality in Chicago, Ill., for the Week Ending July 9, 1904, compared with the preceding week and with the corresponding week of 1903. Death rates computed on United States Census Bureau's estimated mid-year populations of 1,932,315 for 1904 and of 1,873,880 for 1903:

	July 9, 1904.	July 2, 1904.	July 11, 1903.
Total deaths, all causes	395	398	563
Annual death rate per 1,000	10.68	10.75	15.62
By sexes—			
Males	236	243	322
Females	159	155	241
By ages—			
Under 1 year	64	67	120
Between 1 and 5 years	20	37	56
Over 60 years	73	73	104
Important causes of death—			
Acute intestinal diseases	31	28	68
Apoplexy	13	5	9
Bright's disease	37	27	35
Bronchitis	7	6	12
Consumption	68	46	45
Cancer	19	22	28
Convulsions	8	7	17
Diphtheria	4	7	4
Heart diseases	37	36	41
Measles	1	..	3
Nervous diseases	18	23	49
Pneumonia	33	34	51
Scarlet fever	1	2	8
Suicide	5	9	10
Sunstroke	1	2	26
Typhoid fever	4	4	7
Violence (other than suicide)	30	41	40
Whooping cough	2	2	4
All other causes	76	115	106

Dr. C. Alphonso Smith, of the University of North Carolina, was elected president of the University of Tennessee on June 30th.

The Deaths in San Francisco, during the month of May, numbered 602. The annual death rate of the city on an estimated population of 475,000 is 15.20 per mille.

Dr. A. D. Herrick, former resident surgeon at the Soldiers' Home, Washington, D. C., has been given a position by the Isthmian Canal Commission as bacteriologist at Panama. He sailed from New York for Panama on July 6th.

St. Elizabeth's Hospital, Utica, N. Y.—Dr. Harry P. Brayton, of Syracuse, who has successfully served during the past year as interne at St. Elizabeth's Hospital, has resigned his position in that capacity and will be succeeded by Dr. Milton D. Graham, of this city, who graduated from Syracuse Medical College this year. Dr. Brayton will probably start practice in Syracuse.

Casualty Hospital, Washington, D. C.—With the beginning of the new fiscal year, July 1st, Dr. T. G. Jones, who has been chief resident physician at the Casualty Hospital for two years past, retired, and probably within the next few weeks he will take up private practice in the vicinity of the hospital. Dr. Jones will be succeeded as chief resident by Dr. Patrick A. Lloyd. Several other important changes are slated at the Casualty Hospital in the very near future, chief among them being the building and occupancy of a new hospital building. The present hospital stands on a portion of the block on which the new Senate office building is to be erected, and as operations on this structure are to be begun in the autumn, a new location for the hospital must be found at once. It has been definitely decided to construct a new hospital building, and the board of directors will hold a meeting early this month finally to select a site.

Dr. Arthur Trew Blachly, of Delta, Col., has been appointed resident physician of the Hayward Indian reservation.

Norfolk, Va., Almshouse.—Dr. R. D. McIlwaine was on July 7th elected for his eighth consecutive term as physician to the almshouse.

The Antispitting Crusade.—Jacksonville, Fla., is the latest town to take up this crusade, and through its mayor, Mr. Nolan, ex officio chairman of the city board of health, will enforce a recent law passed by the State board.

City and County Hospital, Denver, Col.—The following appointments have been made at this institution: Chief resident physician, Dr. Carl G. Parsons; assistant county physician, Dr. Edward H. Jordan; druggist, A. A. Lord.

Lowell, Mass., Hospital Training School.—Those who obtained diplomas as nurses on July 6th were the Misses Frances Cochrane, Isabel Milton, Jennie Robley, Emma Archibald, Harriet Holden, Eva Walker, Ethel Morrison, and Mrs. Marcia Bugbee.

Third District Branch of New York State Medical Association.—At the recent meeting at Binghamton, the following officers were elected unanimously: Dr. Franklin Kaufmann, president; Dr. Sherman Voorhees, of Elmira, vice-president; Dr. Clark W. Greene, of Binghamton, secretary; and Dr. Frank Kenyon, of Scipio, treasurer.

Burrage Hospital, Boston.—The Burrage Hospital is now open. This is a free summer hospital for crippled and deformed children whose parents or guardians are unable to provide proper care or treatment for them. Infants and very young children suffering from acute diseases are not admitted, except in exceptional cases. The hospital is situated in Boston Harbor, on Bunkin Island, midway between Hull, Hingham, and Point Allerton.

Partial Removal of Government Hospital for the Insane.—The work of removing the pathological department of the Government Hospital for the Insane to a site 150 feet westward of the old one has been completed without mishap, and the building rests on its new foundation. The brick structure, measuring about 43 by 45 feet, was transferred with hardly a sign of the journey being visible in its interior.

Columbus Hospital, Chicago.—Within two months the Columbus Hospital, Lake View Avenue and Deming Place, will be completed and ready to receive patients. It is under the management of the Missionary Sisters of the Sacred Heart and contains 150 rooms. Large donations have been recently received from friends of the order, and it has been announced that the long cherished plans would be realized by the first of September. The Missionary Sisters of the Sacred Heart have been for years the principal religious organization admitted to the county jail. They conduct the School of the Assumption, at 126 Erie Street, and graduated a class of five on July 10th. Bishop Muldoon made the address.

New Medical Mission for Kansas City, Mo.—Mrs. L. C. Thomas, of Ohio, will open a free medical mission at 12 East Missouri Avenue. It is expected that such a mission will be a help to the sick in the North End, as physicians and nurses will not only attend the sick, but they will also give instructions to the well regarding the best sanitary methods to be followed.

Atlantic City's Garbage.—Atlantic City, N. J., is a unique community. During the month of June each year its population increases from 35,000 to 150,000. In such a city the efficient disposal of garbage and sewage is absolutely essential to the health of the inhabitants. Last year, owing to a break in the sewage system, a serious local outbreak of typhoid fever threatened. This year there seemed to be a possibility of trouble over the disposal of the garbage, but a compromise has been made and the $75,000 crematory built by the Atlantic Product Company on city land is disposing of the refuse.

The Utile Dulci Societas, of Washington.—Thirteen members of Columbian University medical and dental classes of 1907, perfected the organization of a club on June 20th. The club, which is limited to twenty-five members, will be known as Utile Dulci Societas. The business of the evening over, supper was served, toasts made and responded to, and college songs indulged in with a vim possible only among college men. The officers of the club are: President, Dr. Joseph R. Biggs, of the District of Columbia; vice-president, Dr. W. R. Barnesby, of Illinois; secretary, Dr. H. S. Forrer, of Illinois; treasurer, Dr. H. E. Meyer, of Pennsylvania; executive committee, Dr. W. R. Barnesby, of Illinois; Dr. T. H. Legg, of Maryland; Dr. E. T. Stephenson, of Texas.

Tristate Medical Society of Iowa, Illinois, and Missouri.—Officers to head the Tristate Medical Society of Iowa, Illinois, and Missouri for the coming year were elected at the close of the annual meeting in the Louisiana building, Vandeventer Avenue and Morgan Street, St. Louis, on June 17th. Dr. Francis Reder, of St. Louis, was chosen president. The other officers are: Dr. Daniel O'Dogherty, of Cherokee, Ia., and Dr. Joseph T. White, of Freeport, Ill., vice-presidents; Dr. Emory Lanphear, of St. Louis, treasurer, and Dr. E. C. Sisson, of Keokuk, Ia., secretary. Dr. Lanphear was reelected. Keokuk, Ia., was selected as the place for the next meeting, which will be held commencing the first Wednesday in April, 1905. The board of censors of the society changes by the dropping of Dr. Alex. H. Ferguson, of Chicago, whose term expired. Dr. W. B. Laforce, of Ottumwa, Ia., the retiring president, becomes the new member by virtue of his former position.

Missouri Physicians Desire to Incorporate.—A pro forma decree of incorporation was applied for in the circuit court on July 2nd by the Missouri State Medical Association. The object of the organization is given as the advancement of medical science and the profession. The officers are: Dr. J. M. Jackson, president; Dr. C. M. Nicholson, secretary; Dr. J. Frank Welch, treasurer; Dr. Walter B. Dorsett, Dr. B. N. Hypes, and Dr.

Frank P. Lutz, members of the council, and Dr. Robert M. Funkhouser, Dr. W. G. Moore, and Dr. E. L. Chambliss, members of the house of delegates. The names of the members, to the number of about 1,500, physicians from all over the State, were attached to the petition.

Need of an Isolation Hospital for Memphis.—Dr. Heber Jones, president of the board of health, has reported to the Memphis and Shelby County Medical Society that for some time past he has been working to secure an isolation hospital. Such an institution is very essential to the general sanitary and healthy condition of any large city, he said. Dr. Jones said that the scheme at present was to construct such a hospital about seventy-five or eighty feet from the present city hospital, the building to be two stories, four rooms upstairs and the same number on the ground floor. Sufferers from such diseases as measles, scarlet fever, erysipelas, smallpox and tuberculous diseases will be accommodated. Every one heartily indorsed Dr. Jones's plan.

An Intercollegiate Students' Conference was held during the first week in July at Northfield, Mass., which was attended by many medical students. The conference was held in connection with the Y. M. C. A. It was presided over by the Reverend John R. Witt, and among the speakers were: Reverend G. A. Johnston Ross, of Cambridge, England; the Reverend Charles C. Hall, D. D.; Robert E. Speer, Professor R. A. Folsomer, of Halifax; the Reverend A. P. Stokes, Jr., of Yale; S. H. Hadley, L. L. Doggett, Ph. D.; W. D. Murray, L. H. Miller, of Princeton; Professor H. M. Tory, of McGill University; T. B. Penfield, of New York, and C. C. Michener, of New York. The programme included the intercollegiate track and field sports on July 4th.

The White League of Pennsylvania.—The White League of Pennsylvania was chartered on June 14, 1904, for the treatment of pulmonary tuberculosis among the poor. The league intends to adopt the hygienic method of treatment, which is now recognized as the rational method of combating the disease. The league has a site on the eastern slope of the Allegheny Mountains at an elevation of over 1,500 feet in Luzerne County, near Glen Summit, where a permanent camp will be built. In the meantime a temporary camp will be opened at Trout Run, near Bethlehem. It is proposed to provide for the hopelessly ill in a healthful location, so as to afford them the comforts of life as long as they live. Among those prominent in the management of the league's affairs are E. W. Perot, a mechanical engineer; Maxwell Kennedy, R. Meade Bache, W. W. Atkinson, Dr. Francis D. Harris, and Dr. Rolando Kuehn.

Alcohol in Medicines.—The proportion of alcohol in patent medicines proved an interesting topic at the morning session of the Ontario Medical Council on June 29th. A committee was appointed to look into the matter and take steps to bring it before the legislature. Dr. Bray, of Chatham, who introduced the measure, wished that there might be an act compelling manufacturers of patent medicines to print a list of the ingredients on the label of every bottle. People, he said, were to be prevented by law from drinking beer containing 2 to 2½ per cent. alcohol. Here were medicines which contained 30, and even, 50 per cent. of alcohol being used daily by thousands of people. It was also well known among doctors that women who use patent medicines became slaves of the opium and morphine habits. The council, he said, should receive a report from the committee showing the percentage of alcohol, and the matter should be brought before the legislature. The motion was unanimously carried.

Statue to Dr. William Elias B. Davis.—The memory of the late Dr. William E. B. Davis, of Birmingham, Ala., will be appropriately perpetuated by the erection of a monument by the Southern Surgical Gynæcological Association, of which Dr. Davis was the originator as well as founder. He not only conceived the idea, but organized the association in all its details and served as its secretary and executive officer for thirteen years. The association does well in thus testifying its appreciation of this distinguished physician, whose memory will live independently of granite or bronze. The statue, according to the *Alabama Medical Journal* for May, 1904, will be made by G. Moretti, who was the designer of Vulcan (the colossal iron man which represents the Birmingham district at the St. Louis Exposition) and will be in bronze, 7½ feet high, standing upon a granite pedestal 9½ feet high. Signor Moretti is now making a marble bust of Dr. Davis in Alabama marble. The plaster cast is a very fine likeness. He has made an indemnity contract to have the statue ready by the first of December next that it may be unveiled at the coming meeting of the Southern Surgical and Gynæcological Association.

Luncheon to Dr. W. F. R. Phillips.—A complimentary luncheon was given, July 1st, at the Hotel Fritz Reuter, Washington, D. C., to Dr. W. F. R. Phillips, the new dean of the medical faculty of the Columbian University, by his former associates in the weather bureau. Dr. Phillips was the librarian and climatologist of the weather bureau for a number of years, and resigned to accept his present post. Nineteen covers were placed. After the luncheon Professor Willis L. Moore, chief of the weather bureau, on behalf of the participants, presented Dr. Phillips with an elegant watch guard and charm. Dr. Phillips expressed his sincere appreciation of the compliment shown him, and his great regret at severing his official relations with the members of the bureau, and the high personal esteem in which he held his associates in that organization. Among those present were: Professor Willis L. Moore, chief of bureau; H. E. Williams, D. J. Carroll, W. B. Stockman, James Berry, E. B. Garriott, H. C. Frankenfield, H. H. Kimball, A. Zappone, F. M. Cleaver, A. J. Henry, C. F. Marvin, F. H. Bigelow, Cleveland Abbe, James R. Cook, D. T. Maring, G. E. Hunt, C. F. Talman, T. T. Moore, E. B. Calvert, H. L. Heiskell, and A. H. Thiessen.

The Milk Question in Chicago.—For the first time since the supervision of the city's milk supply was undertaken by the department in 1893 every sample of milk and cream collected by the milk inspectors during the week was found up to or above the ordinance standards—3 per cent. of butter fat for milk and 15 per cent. for cream, many of the milk samples showing over 4 per cent. and cream 20.1 per cent. of butter fat. In January, 1893, the samples collected averaged less than 10 per cent. up to the standards. The improvement has been steady and progressive during the period until the average of below grades, month after month, is now less than 6 per cent., and the death rate among the young—especially among those between one and five years of age, the milk feeding period—has as steadily and progressively diminished. The commissioner is especially gratified with the results of the efforts to improve the conditions of milk production by the inspection of dairies and dairy farms. During the working days of the last three weeks 355 dairy farms, with 6,288 cows, have been inspected, and the milk from 72 dairies, or about 20 per cent., has been excluded from sale in Chicago until the owners comply with the sanitary requirements of the department based upon the city ordinances. The educational effect of this exclusion is shown in the following figures: During the first week 88 dairies were inspected, out of which number it was found necessary to exclude the milk of 32, or more than one-third, 36.3 per cent.; during the second week 135 were inspected and 29, or 21.4 per cent., were excluded; last week, with only four and a half working days, there were 132 dairy farms and 2,871 milch cows inspected, and the milk from only 11, or 8.3 per cent., was excluded. The dairy farmer is quick to learn if he is properly approached and the reasons of the requirements are explained to him.

Meeting of the Michigan State Board of Health.—The State board of health met in the capitol, July 8, 1904. The members present were: Honorable Frank Wells, president; Honorable Henry A. Haigh, Dr. Victor C. Vaughan, Charles M. Ranger, Dr. D. A. MacLachlan, and Dr. Henry B. Baker, secretary. After the auditing of bills and accounts and the disposal of other routine work, the president having been absent from the State at the annual meeting of the board in April, gave his annual address at this time. He urged the importance of local boards throughout the State being represented at the health officials' conference, held annually, through which means each health officer would come to have a better understanding of the duties of his office and a more thorough interest in the public health work of the State. He mentioned proposed legislation which would make possible a more representative attendance at such annual conferences:

> Having in mind the long continued efforts of this State board for the establishment of State sanatoria for consumptives in Michigan, he mentioned the fact that by an extended trip through the western States, including California, he found in many places consumptives who arrived there, from Michigan and other States, friendless, alone, and with little money, and were refused admittance to hotels, boarding houses, and rented rooms, by proprietors who were keenly alive to the losses they must suffer through contamination of premises by these unfortunates. Many of these found but one place open to them—the hospital connected with the county buildings, where each one was herded with scores of other victims, without any of the comforts to which most of them had been accustomed, little or no care taken of sputa, without medical attention until too late to have it avail, lonesome and homesick, the only alternative, death, soon brought to them a welcome relief from their misery and despair. "Why do not the State of Colorado and the other western States, in the interests of humanity, provide hospitals where these unfortunates may be properly cared for, and shown how they may if possible be cured?" "In hospitality, liberality, and unselfishness the people of our western States are the peers if not the superiors of the people of the middle and eastern States, but in none of the States has any such step been taken. To ask a State to do so would ill become an inhabitant of a State like Michigan, which refuses to make similar provision for its own citizens. Permitting the sending of such victims there to die a miserable death is unjustifiable, and emphasizes the necessity for State sanatoria for this class of unfortunates."
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> "It is the almost universal testimony of health officers that from lack of funds they are debarred from carrying out preventive measures. City councils and village boards will not, as a general rule, appropriate money for public health work until a disease regarded by them as contagious has actually made its appearance. In every municipality, and especially in townships, there should be a public health fund to be drawn upon, under proper restrictions, by the health board whenever and however the public interests demand. Bills have been before several legislatures providing for such a fund to be created by the voters of every city, village, or township in a similar manner to that in which funds are provided for school purposes. A law based upon this theory, or some other which would provide a public health fund in every municipality, is greatly needed."

The board decided that hereafter applicants for license failing to attain a satisfactory rating on a first examination would, if they wished, be examined again, provided they again file their application and pay the fee of five dollars required by law for each subsequent examination. A new amended edition of 40,000 copies of *Dangerous Communicable Diseases, How Restricted and How Spread,* a pamphlet to be distributed principally to teachers of the State for use in schools, was ordered to be printed. The board ordered to be printed an amended edition of the pamphlet on the *Restriction and Prevention of Measles;* also a new edition of the pamphlet on the *Restriction and Prevention of Diphtheria;* also one on the *Restriction and Prevention of Consumption;* also an amended edition of the single-leaved circular to be issued *To Persons Having Consumption or a Chronic Cough.* The plans for a proposed addition to the dining room building and a new cottage at the Home for the Feeble Minded at Lapeer; also the plans for a proposed new Metallurgical Building at the Michigan College of Mines at Houghton, were examined by the board, and recommendations made for their improvement. The secretary was instructed to prepare material for and issue the Teachers' Sanitary Bulletin for September, October, November, and December. In accordance with a resolution of this board on July 10, 1903, President Wells had compiled and he submitted at this meeting a manual for the use of health officers. In this manual it is designed to give to the health officer, in a complete and comprehensive form, instructions enabling him to act intelligently in the best way for the restriction and prevention of each of the dangerous communicable diseases. The manual was submitted for the subsequent individual consideration by the members of the board and action at some future meeting.

Pith of Current Literature.

MUENCHENER MEDIZINISCHE WOCHENSCHRIFT.

June 14, 1904.

1. The Diagnosis of Typhoid Fever, By ROLLY.
2. A Case of Trypanosome Disease in Man, By GUENTHER.
3. The Ætiology of Malignant Tumors, By G. KELLING.
4. Reposition of the Dislocated Cuneiform Bone, By WENDT.
5. Operations with Alternating Röntgen and Daylight, By R. GRASHEY.
6. Cure of Splenic Leucæmia by the Röntgen Rays, By AHRENS.
7. Cure of a Case of Congenital Vesical Diverticulum by Operation, By P. WULFF.
8. Differential Diagnosis of Bubonic Plague, By VON BASSEWITZ.
9. Breast Pumps and Their Use, with a Description of a New Model, By J. IBRAHIM.
10. Improved Model of Ear Trumpet, By DINKLER.
11. New Sterilizable Eyedrop Glass, By F. BECKER.
12. Diagnosis and Prophylaxis of Typhoid Fever (*Concluded*), By F. WESENER.

1. **Diagnosis of Typhoid Fever.**—Rolly concludes from his observations that agglutination takes place with dead typhoid bacilli in the same dilutions as with living typhoid bouillon cultures; blood serum which does not agglutinate living bacilli, will not agglutinate dead typhoid bouillon in the same dilution. The agglutination of dead typhoid bouillon takes place a quarter to half an hour later than with living bacilli; this can be noted macroscopically as well as microscopically. Macroscopically, the agglutination can be seen with twelve hours as the longest time, while microscopically it can be observed within from fifteen minutes to two hours after the addition of the serum. If no agglutination is noted microscopically in two hours, none will appear. The Widal reaction can thus be greatly simplified, since the bouillon containing dead typhoid bacilli can be preserved for a long time.

2. **Trypanosoma.**—Guenther reports the case of a man thirty-three years of age who presented a chronic picture of irregular attacks of fever with loss of strength and diminished hæmoglobin. The patient suffered from temporary œdema of various parts of the body and a peculiar affection of the skin. The spleen and liver were enlarged, becoming larger during the acute attacks. There was a constant tachycardia with occasional dyspnœa and an abnormal irritability of the vascular system. The fever was always accompanied by the finding of the trypanosoma in the peripheral blood. There was a relative increase of uninuclear leucocytes.

3. **Ætiology of Malignant Neoplasms.**—Kelling has conducted a number of animal experiments with a view to ascertaining the origin of malignant growths. He comes to the conclusion that, in general, Cohnheim's theory is correct, viz.: that these neoplasms originate in foreign embryonal cells, cells, that is, which are foreign to the tissues in which they proliferate. In some instances, he found cells which did not belong to the species of animal in which they were found, but which were normal cells in other lower species.

4. **Dislocation of the Cuneiform.**—Wendt reduces dislocations of the cuneiform bone by pulling horizontally on the arm and exercising at the same time strong dorsal flexion of the hand. By this means, the proximal articular surface of the os magnum is brought into contact with the distal articular surface of the cuneiform which is then pressed into place like a wedge. Palmar flexion of the hand completes the reduction.

12. **Typhoid Fever.**—Wesener, in this very general paper, touches upon many points connected with the management of typhoid fever. He urges, among many other things, continuous disinfection of the excretions and linens of the patient, and points out statistically that isolation of typhoid patients does not lessen the infection of attendants. This must always depend upon proper disinfection, on the one hand, and rigid training on the other.

ZENTRALBLATT FUER INNERE MEDIZIN.

May 7, 1904.

1. Clinical Findings in Chronic Rheumatism, By J. WEISS.

1. **Chronic Rheumatism.**—Weiss has examined about 100 cases of chronic rheumatism, especially for changes in the subcutaneous tissues and muscles surrounding the affected joints. Frequently, he found sensitive infiltrations in the muscles lying medially to the elbow joint, at the point of the shoulder, in the supraspinous region, in the muscles of the neck, and (in women) particularly in the region of the sacrum. Very rarely, the infiltrations are of a gouty nature. Weiss says that the histological changes are unknown.

ZEITSCHRIFT FUER GEBURTSHILFE UND GYNAEKOLOGIE.

Vol. LI, 2.

1. Hæmorrhage During Parturition and Its Consequences, By F. AHLFELD.
2. Operation for Umbilical Hernia with Resection of the Prolapsed Liver, By ZILLMER.
3. Hæmatomatous Mole, By A. BAUEREISEN.
4. Ovarian Hæmorrhages, By O. BUERGER.
5. Lowering the Freezing Point of the Blood of Pregnant, Parturient, and Puerperal Women, By H. FUETH.
6. Layer of Placental Separation at Different Periods of Pregnancy, By G. BOESEHECK.
7. Experiments on Oxygen in Fœtal Human Blood, By H. FUETH.
8. Primary Krukenberg's Ovarian Tumor, By F. SCHENK.

1. **Hæmorrhage During Parturition.**—Ahlfeld draws his conclusions from the observation of 6,663 births. He says that the placenta will remain in the vagina from one hour and a half to two hours if it must not be expressed on account of bleeding, and it would remain there longer if it were not artificially removed. This, then, is the normal course of the third stage of labor. The loss of blood during birth is dependent upon the size of the child; the loss of 600 to 800 grammes is normal when the child weighs from seven to eight pounds. On the other hand, the period of expulsion or the rupture of the membranes in relation to the dilatation of the cervix at the time, have no bearing upon the amount of bleeding. In pathological or abnormal births, the

expulsion of the placenta is necessary, as a rule, on account of bleeding. Hæmorrhage of a moderate amount during labor has no effect upon the general condition of healthy women or upon their ability to nurse satisfactorily if they have good care.

3. **Hæmatomatous Mole.**—Bauereisen records a case of this condition as first described by Breus. These moles are more accurately described as aneurysmal moles, for they present bloody sacs in the intervillous spaces in direct connection with the blood vessels, rather than collections of blood in the tissues. The uterine mucosa is the source of origin of moles, and in the case reported a curetting had previously been done for a hypertrophic glandular endometritis. Hæmatomatous moles are caused directly by the occlusion of the efferent vessels of the intervillous spaces through deportation of chorionic villi. An early hydramnios and an independent continuance of growth of the secundines after fœtal death, is a secondary cause of the condition.

4. **Ovarian Hæmorrhages.** — Buerger describes a case of a barren woman who was laparotomized for internal hæmorrhage. The left ovary was of the size of a hen's egg, and was perforated in one place through which blood had escaped into the peritonæum. The ovary was the seat of cystic degeneration. Careful microscopical examination disclosed the absence of any evidence of an extrauterine pregnancy; but it was found that a corpus luteum cyst was the seat of rupture and of almost fatal hæmorrhage. The author says that in the absence of a history of pregnancy when the symptom-complex of an internal hæmorrhage is present, the rupture, with hæmorrhage, of a corpus luteum cyst must be thought of.

7. **Cryoscopy of the Blood.**—Fueth concludes, from his experiments on rabbits, that the pregnant rabbit's blood is more capable of taking up CO_2 than that of the non-pregnant animal. The blood of a rabbit which has breathed pure oxygen for a considerable length of time, shows no change in its freezing point. He further found that the red cell count and the freezing point of blood were the same at the end as at the beginning of pregnancy. Fueth believes that at the end of pregnancy, the human fœtus has absorbed more oxygen than is absolutely necessary for its immediate purposes.

PRESSE MEDICALE

May 7, 1904.

Floating Kidney, with Intermittent Hydronephrosis and Crises of Mucomembranous Enteritis, By DEBOVE.

Floating Kidney.—Debove's paper is a clinical lecture on a woman, thirty-two years of age. The lesion is more common in women and in the right kidney. In this case a tumor came and went from day to day. When present, it was sensitive to the touch, its manipulation caused nausea, and the urine was more abundant. The condition, owing to the varying location of the pains, has been wrongly diagnosticated as nephritic colic, appendicitis, hepatic colic, and acid dyspepsia. In the case under consideration there was a mucomembranous enteritis, to which a careless diagnostician might have attributed all the symptoms. Debove cities a similar case where an operation on the kidney relieved completely the enteric symptoms. He decided to operate on the present case, one reason being that the hydronephrosis, then intermittent, would certainly become chronic and therefore cause an interstitial nephritis of the other kidney with certain uræmia in the near future.

May 11, 1904.

1. New Combined Method for the Cure of Strictures and Chronic Inflammations of the Urethra, By PHILIPPE
2. Technics and Indications for Circular Electrolysis in Urethral Strictures, By MINET and AVERSENQ.
3. Treatment of Infantile Urinary Incontinence by Faradaization of the Compressor Urinæ, By GENOUVILLE and COMPAIN.

1. **Treatment of Stricture.**—Philippe credits electrolysis with many cures of simple stricture, but maintains that a combination therewith of lavage with carbonic acid is required when chronic urethral inflammation exists as a complication. He has seen the latter work wonders in varicose ulcers, torpid wounds, sinusitis, fistula, etc. The gas is heated to 45° C. and driven into the urethra under pressure that may be regulated. It is saturated with essence of cinnamon as an antiseptic agent. A diagram of the apparatus used illustrates the article.

2. **Electrolysis in Stricture.**—Minet and Aversenq use rigid bougies with a mercury bisulphate battery. A current of 3 to 4 milliampères is passed for some 15 minutes, once weekly. This treatment is preceded by progressive dilatation with ordinary sounds, but the permanent results are attributed by the writers mainly to the electrolysis. They would never perform urethrotomy save as a last resort.

3. **Faradaization in Infantile Incontinence.**—Genouville and Compain allege a purely local origin of this trouble, lack of tone of the compressor urinæ. They use a slowly interrupted current (once a second). The negative pole is placed over the hypogastric region and the positive is a catheter introduced into the urethra with aseptic precautions. The current should not be painful. In males, the positive pole may be applied to the perinæum, if preferred. Out of 40 cases, the writers had 22 cures, 10 improvements, and 8 failures. They think this last class would have improved had they not been discouraged by the length of the treatment.

May 14, 1904.

False Floating Kidney, By LANGENHAGEN.

False Floating Kidney.—Langenhagen states that the hepatic flexure of the large intestine modified by disease, etc., is sometimes mistaken for a misplaced kidney, the hardness of which, however, should prevent error. When the intestine presents such a tumor a hitherto unsuspected colitis may be diagnosticated, and large intestinal lavements will probably bring about a cure and prevent an unnecessary laparotomy.

RIFORMA MEDICA.

April 27, 1904.

1. Endo's Method for the Differentiation of Eberth's Bacillus from the Colon Bacillus, By GUIDO RUATA.
2. Pathological Anatomy and Acute Delirium (Acute Diffuse Parenchymatous Cephalopathy), By U. ALESSI.
3. A Case of Intraperitoneal Inguinal Cystocele, By E. ARCOLEO.
4. Contribution to the Statistics of Juvenile Tabes, By L. PAROLA.

1. **Endo's Method for Distinguishing the Typhoid Bacillus from the Colon Bacillus.**—Ruata concludes from an experimental study of Endo's method that it is only of relative value from the point of view of differentiation and is certainly not superior to the numerous color reaction methods which have heretofore been described. The method in question was suggested by S. Endo, at Kitasato's laboratory, in Tokio, Japan, in November, 1903, and was asserted by its originator to be absolutely diagnostic. The method in question is as follows: Half a kilogramme of powdered meat, one litre of water, 10 grammes of peptone, 5 grammes of sodium chloride, and 30 grammes of agar are boiled together, the mixture filtered and neutralized. Then 10 c. c. of a 10 per cent. solution of sodium carbonate are added, in order to render the fluid alkaline. Finally 10 grammes of lactose and 5 c. c. of an alcoholic solution of fuchsin are added. The medium assumes a deep red color, which disappears on the addition of 25 c. c. of a 10 per cent. solution of sodium sulphite. The medium is then poured into tubes, each containing 15 c. c., and is sterilized by steam. In order to obtain good results, all the constituents of this formula must be obtained pure; the solution of sodium sulphite must be kept well stoppered, and the solution of fuchsin must be filtered before using and must be kept in a dark place. When using this medium the agar is melted by heating, and is poured into sterilized Pétri dishes, where it is allowed to solidify. These dishes, after having been infected with the material under investigation, are kept at 37° C., and after fifteen hours colonies of the colon bacillus may be seen. After twenty-four hours these colonies become completely red and assume the greenish iridescence characteristic of fuchsin. On the other hand, the colonies of typhoid bacillus remain colorless. Ruata, in commenting upon his own series of tests with this method, says that both the bacillus of typhoid fever and the colon bacillus either turn the medium red, or do not stain it, according to the variety of the germ and the particular source of it in each individual case, as well as according the nutritive medium in which they had been cultivated, the age of the culture, the quantity of the material used for infection, etc. The diagnosis between these two germs, therefore, cannot be made with certainty with Endo's method, if the color reaction alone is taken as a criterion. If, instead of Pétri dishes, test tubes of agar are infected, there will be the development of bubbles of gas, which is practically constant with the colon bacillus and is lacking with the typhoid germs. This criterion, however, is only of value when we are perfectly sure that we have infected each tube with only one of the two germs. The chief difficulties with this method are the instability of the medium, due to the looseness of the combination of fuchsin with the sodium sulphite, and the inconstancy of the color reaction.

2. **Acute Delirium.**—Alessi pleads for a more rational classification and definition of certain forms of mental disease, especially of so-called acute delirium. He reports a case of acute delirium in which he had the opportunity of studying the lesions. The patient was a man aged thirty-five years, who died in the presence of the typical symptoms of acute delirium, followed by coma and characterized by rapid course, high temperature, and an extreme prostration preceding the final stage. The autopsy showed nothing abnormal in the meninges, except venous congestion. There was a slight amount of fluid in the lateral ventricles and the cortex was in a state of venous stasis. Microscopically, Alessi found the same lesions as have been described by Cristini and others, i. e., exclusively changes in the parenchyma, while the vessels and neuroglia were not altered in any way. Therefore, acute delirium cannot be spoken of as an inflammation, but as an acute degeneration and disintegration of the fundamental nerve tissue. Acute delirium, general or progressive paralysis, and senile dementia, represent different modifications of the same pathological process, namely, diffuse encephalopathy. A noteworthy fact in this case was, that similar lesions were found in the parenchyma of various organs. In the same manner as the diseases of the kidneys have been classified into interstitial and parenchymatous, so certain diseases of the brain could be grouped, and acute delirium under this scheme would be classed as a parenchymatous infection with the name of "acute diffuse parenchymatous encephalopathy."

ROUSSKY VRATCH.

May 1, 1904.

1. An Attempt to Produce Artificial Microcephaly in Dogs, By V. I. DANILEFFSKI.
2. Rôle of the Nose and Throat in the Causation of Hæmoptysis; Hæmorrhagic Pharyngitis, By S. S. PREOBRAZHENSKI.
3. The Morphology and Biology of the Bacillus of Plague and of the Pseudotubercle Bacillus in Rodents (*To be concluded*), By S. I. ZLATOGOROFF.
4. On the Influence of Radium Upon Specific Hæmolytic Serum, By P. P. IAGN.
5. The Treatment of Middle Ear Disease by Electric Light, By S. S. MEYEROWITZ.
6. The Hygiene of City Streets (*To be concluded*), By M. N. RUBEL.

1. **Artificial Microcephaly in Dogs.**—Danileffski reports experiments on dogs which he conducted in the attempt to produce artificial small heads in these animals. The question as to the relation between the size of the brain and of the cranium, while of great interest, has not yet been solved. While some scientists attribute the shape of the head to the growth of the brain, others assert that the shape of the brain depends upon the form and growth of the cranium, while still others believe that the growing brain and cranium always influence each other. Danileffski has been conducting a series of experiments producing artificially a symmetrical development of the brain and the cranium. Thus,

he cut the sympathetic and the vagus nerves in very early life in dogs and obtained an irregular development of the fissures and convolutions of the brain in both hemispheres, while the cranium showed scarcely any changes. He removed a piece of skull of considerable size in the frontal region in very young pups, and after a few months obtained a non-development of the corresponding portion of the cortex, as a result of the mechanical pressure of the thickened membranes. In this manner he tried to follow the development of the brain without the influence of the cranium.

In the experiments now reported which were begun twenty years ago, he attempted to produce microcephaly in dogs. For this purpose he took twenty dogs at a very early age and applied a metallic helmet over the head of each animal, which fitted very closely and surrounded the skull from all sides, except the lower. These helmets were carefully fitted to the shapes of the original skull, and were so securely fastened that no efforts of the animal succeeded in displacing them. In six dogs the experiments were successful, while in the rest the trials had to be interrupted on account of ulceration of the skin, and on account of disease in the dogs. The first thing noted in these pups was that they were markedly backward in intelligence and developed a vicious character and a hoarse spasmodic bark. These dogs became lazy, their backs were usually curved upwards, the eyes became prominent, the supraorbital arches projected abnormally, the head became elongated, especially the facial portion, and the cranial portion of the skull remained small, flat, and low, so that the animal gave at first glance the impression of microcephaly.

As a rule, these dogs developed convulsive attacks at the end of two or three months, and in no case could they be kept alive more than four months after the helmet had been applied. The weight of the brain was not abnormally altered in proportion to body weight, probably because the experiments could not be carried on for a sufficient length of time. In the more successful cases the convolutions were considerably flattened—a fact which may be connected with the extraordinary stupidity of these dogs and with their insufficient coordination in running.

2. **The Rôle of the Nose and Throat in Hæmoptysis.**—Preobrazhenski concludes as follows after a study of 16 cases of hæmorrhages from the throat: Hæmorrhages from the upper respiratory passages are met with more frequently than is generally supposed, and if properly diagnosticated, they are usually readily treated. The amount of blood lost does not give any clue as to the origin of the hæmorrhage, and an abundant bleeding does not exclude the possibility of this symptom originating in the pharynx. In view of the great importance of hæmoptysis as a symptom, the designation, "hæmorrhagic pharyngitis," should be used in cases in which hæmorrhages arise from the pharynx. The latter are often mistaken for pulmonary hæmorrhages. The nasopharynx bleeds very readily, as may be seen by simply passing a wad of cotton over its surface, and the posterior pharynx often shows enlarged veins which may bleed at slight provocation. Bleeding from the pharynx may be caused by ulceration, injuries, severe cough, severe bodily exertion, etc., especially in persons who are suffering from diseases of the blood or blood vessels (hæmophilia, scurvy, leucæmia), diseases of the heart, the lungs (emphysema), and of the liver, etc. As a rule, hæmorrhages from the pharynx, excluding those caused by operation, are not very abundant, but there are cases in which they are very copious and make one think of pulmonary disease.

4. **The Action of Radium Upon Specific Hæmolytic Serum.**—Iagn found that if a hæmolytic serum was subjected to the influence of radium for forty-eight hours, its hæmolytic powers were totally destroyed. When normal serum from rabbits is exposed to radium it loses its activity—that is, it does not show hæmolysis after the addition of specific hæmolytic serum. He concludes that the "intermediate substance," or "fixator," is destroyed in specific serum on exposure to radium for forty-eight hours, and that under the same conditions there is also a discussion of the alexines.

5. **The Treatment of Middle Ear Disease by Means of Electric Light.**—Meyerowitz reports a series of cases of diseases of middle ear, acute and chronic, in which he obtained excellent results by the reflection of electric light directly upon the ear drum and through it into the middle ear. At first he tried blue light, thinking that the so called chemical rays had the greater influence upon inflammatory processes, but he found that such light in the ear after a short exposure produced marked inflammatory reactions; therefore, he confined his experiments to ordinary incandescent lamps adapted to special apparatus which could be screwed to an ordinary ear speculum in such a manner that the light fell directly into the ear and that the incandescent lamp was so arranged as to be constantly surrounded by a slow stream of water, which kept it cool. Usually the sitting lasted about fifteen minutes. In two cases of acute catarrh three or four sittings were sufficient to remove all the symptoms. In some cases of dry catarrh very fair results were obtained, but the experiments were not yet completed. In four cases of catarrh with exudation, including both acute and chronic types, the electric light caused the absorption of exudate and the disappearance of the symptoms.

BOSTON MEDICAL AND SURGICAL JOURNAL.

July 7, 1904.

1. President's Address Before the American Gynæcological Society, By Edward Reynolds.
2. Aciduria (Acetonuria) Associated With Death After Anæsthesia, By E. G. Brackett, J. S. Stone, and H. C. Low.

2. **Aciduria.**—Brackett, Stone, and Low write a most interesting paper, but as it is some fifteen pages long, we can only indicate its scope. Fourteen cases are reported, in which was observed a peculiar symptom group. The object of the paper is to call attention to: (1) The occurrence of cases which give distinct clinical evidence of being a form of acute intoxication, which has, among its peculiar manifestations, the presence

of acetone and its allied compounds in the excreta. (2) The occurrence of these cases in a series or group, in the course of a comparatively short period. (3) Their apparent occurrence under many conditions, but particularly fatal when following the administration of an anæsthetic, and under circumstances which gave no reason to expect an untoward result. All the cases presented the following features in common: Vomiting associated with collapse; a very weak and rapid pulse; an absence of fever until just before death; cyanosis, in the fatal cases, causing extreme dyspnœa; apathy and stupor, alternating with periods of restlessness at first, but in the fatal cases gradually deepening into coma and death; and the presence of acetone in the breath and urine. We give the history of one of the cases, which was a typical one, in order that the condition of the children attacked may be appreciated. A boy, twelve years of age, was admitted to the hospital with an extensive infantile paralysis of long standing. He remained perfectly well until four days after his entrance to the hospital, when he began to vomit persistently. The vomitus was watery, of light green color. Up to that time the bowels had moved freely. The abdomen was soft, but not distended. When the vomiting began, the pulse became very weak and increased in rate from 95 to 150. The temperature, which had been normal, rose gradually to 105.8 F. The child became unconscious, the condition gradually failed until death, twenty hours after the onset of the vomiting. The ætiology of the affection is obscure. There was nothing revealed at any of the autopsies that was capable of explaining the clinical manifestations. The authors assert: "First, greater attention should be paid to temperament, and to the conditions which influence it, realizing the anxiety and fright, caused by entering a hospital, remembering that these are particularly noticeable in children of high-strung and apprehensive temperament. Second, the absence of any gross evidence of a pathological condition, may not constitute immunity from the danger of acetonæmia, and possible death after operation. Third, decided caution should be paid to those cases in which there may be reason to suspect a fatty condition of the liver. Fourth, it is more than probable that unusual care should be exercised in those cases showing extensive degenerative change, and, particularly, degenerative muscular change, such as is seen in extensive infantile paralysis."

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

July 9, 1904.

1. The Field of the Section on Pathology and Physiology. Chairman's Address, By JOSEPH MCFARLAND.
2. The Demands of the Child by Virtue of Right, By CHARLES GILMORE KERLEY.
3. Appendicitis from the Standpoint of the Physician, By S. G. BONNEY.
4. The Danger of Allowing Warts and Moles to Remain Lest They Become Malignant. With Twenty-five Illustrative Cases, By W. W. KEEN.
5. Pathological Irregularities, By M. H. FLETCHER.
6. The Crisis and Treatment of Pneumonia, By W. J. GALBRAITH.
7. Mesenteric Embolism and Thrombosis. A Study of 214 Cases (*To be continued*), By JAMES MARSH JACKSON, CHARLES ALLEN PORTER, and WILLIAM CARTER QUINBY.
8. The Yellow Fever Epidemic of 1903, at Laredo, Texas, By G. M. GUITERAS.
9. Suicide; with Some Illustrative Cases, By JOHN L. DAVIS,

2. See this *Journal*, vol. lxxix, page 1172.

3. See vol. lxxix, page 1168.

4. See vol. lxxix, page 1171.

5. **Pathological Irregularities.**—Fletcher's paper is of interest to dentists chiefly. By the phrase "pathological irregularities" he means deformities and malformations of the teeth that are consequent upon localized disease of the alveolar process.

6. **The Crisis of Pneumonia.**—Galbraith believes that much can be done in the treatment of pneumonia. His views of the disease are not in accord with those usually held. The term "crisis" is objectionable and misleading. Stimulation during this period is a most dangerous practice. The author's ideas as to how the disease should be treated follow: "I do not offer this plan of treatment as a specific, but know it has materially reduced my former mortality. The first attention rendered the ordinary cases that are admitted to the hospital is a warm bath and a saline cathartic. The indications governing the administration of quinine and iron are as follows: When the temperature has reached 105 or over, 60 grains of quinine sulphate, to be administered as the initial dose, followed in one hour by one half this amount, or 30 grains, and the following hour by one half the latter dose, or 15 grains, at which time I begin the administration of tincture of iron in doses ranging from 7 to 15 mins., depending on the date of the disease and the condition of the heart. If I see the patient on the first or second day of his attack, I usually begin with about 10 mins. of tincture of iron, increasing it one or two drops, or even more, each day up to the sixth or seventh day unless the pulse remains full and strong."

8. **Yellow Fever.**—Guiteras's conclusions, condensed, are: "(1) The results obtained at Laredo demonstrate that the mosquito (*Stegomyia fasciata*), is the only means of transmitting yellow fever. (2) The measures taken to prevent the reproduction of the *Stegomyia fasciata*, by oiling all water containers and deposits of stagnant water, were completely successful. (3) To control an epidemic of yellow fever which has gained considerable headway it is necessary to have absolute power to enforce sanitary measures. (4) As the *Stegomyia fasciata* can only become infected by biting the patient during the first three days of the disease, it is of vital importance that cases of fever be reported at the earliest possible moment. (5) It is impossible to obtain good results without a mosquito-proof yellow fever hospital. (6) The difficulties of handling an epidemic are increased when such out-

break occurs on the frontier. (7) Insistent and continued efforts should be made to educate the people within the sphere of influence of the *Stegomyia fasciata,* so that they will learn to protect themselves against the invasion or spread of yellow fever. Above all, to eradicate the existing fear in the medical profession, as well as among the laity, of declaring the existence of yellow fever. In fact, the public should be taught to acknowledge the existence of yellow fever in their midst with the same equanimity as in the case of measles or scarlatina.

9. **Suicide.**—See vol. lxxix, page 1171.

MEDICAL RECORD.

July 9, 1904.

1. Illuminating Gas Poisoning: A Clinical Study of Ninety Cases, By W. GILMAN THOMPSON.
2. The Diagnosis of Typhoid Perforation and Its Treatment by Operation, By CHARLES A. ELSBERG.
3. A Method of Securing Fixation and Hardening of the Central Nervous System Before the Autopsy, By B. ONUF (ONUFROWICZ).
4. Occipitoposterior Positions, By S. MARX.
5. Brief Note on the Management of Occipitoposterior Positions of the Vertex, By JOHN O. POLAK.

1. **Illuminating Gas Poisoning.**—Thompson's study is largely based on cases treated in the Presbyterian Hospital, in his own service or in that of his colleagues. The author formulates the following conclusions regarding the comatose cases of illuminating gas poisoning: (1) Leucocytosis is both high and persistent, rising in many cases above 18,000, and in a few fatal cases as high as 50,000. A differential leucocyte count shows preponderance of the multiforminuclear cells. A high degree of leucocytosis is a very unfavorable prognostic symptom. (2) Elevation of temperature is observed in nearly all cases. The fever is usually moderate and of very irregular type. In many cases a subnormal temperature in convalescence. The pulse is disproportionately rapid, as compared with the temperature. (3) The nervous symptoms are both varied and inconstant. Convulsions occur in about 7 per cent. of all cases and muscular rigidity in a slightly larger proportion. The reflexes and pupil symptoms show great variability. The coma bears no definite relation to the intensity or duration of the fever. Coma lasting four or five days is not invariably fatal. In the series of ninety comatose cases only seventeen cases, or 18.8 per cent., were fatal. (4) The results of combined phlebotomy and saline infusion justify the prompt and thorough employment of these measures. (5) Pneumonia is an infrequent complication, and in a large percentage of fatal cases the cause of death may be referred to cerebral lesions, such as congestion of the meninges and brain substance, hæmorrhage of the cerebral capillaries, or hæmorrhage into and softening of the internal capsule, lenticular nucleus, and adjacent structures.

2. **Typhoid Perforation.**—Elsberg attempts to answer two questions: (1) On what can we base the diagnosis of perforation (in typhoid fever) and the indications for operation; and (2) in what cases are we justified in recommending surgical intervention when the diagnosis is in doubt? The author points out the difficulty, if not impossibility, of recognizing impending perforation. In the large majority of cases the symptoms that are supposed to be characteristic of perforation are in reality the symptoms of the peritonitis due to the perforation. The author discusses the following topics: (1) Some diagnostic features of typhoid perforation. (2) The indications for operative intervention. (3) Some of the conditions found at operation. (4) The manner in which patients stand operation. (5) The postoperative course of the typhoid. (6) Some details of the operative manipulations. The paper ends with the report of four cases, one of which terminated fatally.

3. **A Method for Fixing and Hardening the Brain and Spinal Cord.**—Onuf has obtained excellent results by injecting about one quart of twelve per cent. solution of commercial formaldehyde into the spinal canal, by lumbar puncture, and into the brain by running the needle through the foramen magnum. The following advantages are claimed for the method: (1) The brain and spinal cord can be fixed and hardened immediately after death, before permission to perform an autopsy has been received. (2) The method is simple and inexpensive. (3) The results are all that could be desired.

4 and 5. **Occipitoposterior Positions of the Vertex.**—Marx states that the condition is very frequent, as a primary state, though usually the vertex will rotate forward by itself. (1) Operate only in the face of clear indications on the part of either mother or child, (2) operate at once when there is a tendency to posterior rotation. (1) Secure marked flexion of the head by digital pressure on the sinciput. Maintain this flexion by placing the patient in the lateral prone position corresponding to the position of the occiput. (2) If the child is dead, or nearly so, use the perforator. With the child in good condition and with the head above the brim, version; with the head fixed or below the brim, forceps. The author is a strong advocate of "rotary axis traction." This procedure is not without danger in inexperienced hands. For details the original paper should be consulted.

Polak asserts that in less than two per cent. of occipitoposterior positions the occiput rotates into the sacrum. The author's advice as to treatment follows: (1) Head above the brim and membranes unruptured: only postural methods are to be considered. (2) Head at the superior strait and membranes ruptured. Try postural methods, dilate cervix, and give the woman time. If after a reasonable time the head has not rotated or engaged, then: *(a)* Manual rotation of the head by combined internal and external manipulations: *(b)* axis traction forceps tentatively applied: *(c)* version. (3) Head in the pelvic cavity: *(a)* Posture and digital attempts to produce complete flexion of the fœtal head. *(b)* Forceps; either common forceps applied to the sides of the pelvis and taken off and reapplied as the head rotates, or axis traction forceps applied to the sides of the head. (4) Vertex on the pelvic floor; rotate forward manually or by means of the forceps reversed. Failing in this obtain exaggerated flexion of the fœtal head and deliver the occiput over the perinæum. The pelvic floor will be more or less torn.

MEDICAL NEWS.

July 9, 1904.

1. The Theory of Mutation in Its Relation to Medicine, By Jonathan Wright.
2. Race Suicide from the Gynæcological Standpoint, By Robert H. Grandin.
3. Sterility Due to Abnormal Conditions of the Uterus, By Hiram N. Vineberg.
4. Sterility from Vaginal Causes, By James N. West.
5. Yohimbine; Its Use in the Treatment of Eye, Ear, Nose, and Throat Diseases, By J. H. Claiborne, and Edward B. Coburn.
6. Prognosis and Treatment of Urethral Stricture, By Edward L. Keyes, Jr.
7. The Submerged Tonsil, By Thomas J. Harris.
8. Pseudobulbar (Glossopharyngolabial) Paralyses, By Leonard K. Hirshberg.
9. The Rational vs. the "Regular" Treatment for Typhoid Fever; Hanna's Case, and Some Others, By Charles E. Page.

1. **The Theory of Mutation.**—Wright holds that Bastian's belief in spontaneous generation is not necessary for the satisfactory explanation of the phenomena, both biological and historical, of microbic disease. These phenomena are rendered more easily and rationally comprehensive by the theory of mutation. This theory assumes that a definite species may, under certain circumstances, be transmuted, in whole or in part, into another and distinct species. For instance, tuberculosis may have appeared as a disease when, in prehistoric times, some hay bacillus, in a period of mutability acquired those characteristics which now differentiate the hay bacillus from the tubercle bacillus.

2. **Race Suicide.**—Grandin holds that the chief cause of race suicide is the gonococcus. He asserts that nearly 45 per cent. of sterile marriages are directly traceable to gonorrhœa. The remedy for this deplorable condition is the education of the public with regard to the consequences of venereal infection.

3. **Sterility.**—Vineberg discusses only the more common abnormal conditions of the uterus that may give rise to sterility. He discusses his subject under two general heads: (1) primary, and, (2) secondary sterility. We cannot follow the author in detail. We note only that he holds that gonorrhœal endometritis, as an ætiologic factor of barrenness, has been given undue weight.

4. **Sterility.**—West considers sterility from vaginal causes. He discusses his subject under four heads: (1) Congenital causes; (2) pathological causes; (3) traumatic causes; (4) psychical causes.

6. **Urethral Stricture.**—Keyes writes a very practical paper on the prognosis and treatment of urethral stricture. His advice is everywhere minute and precise and leaves few of the ordinary questions relating to strictures unanswered. There is nothing specially new in the article.

9. **The Treatment of Typhoid.**—Page, by the "rational treatment" of typhoid fever, means his method, and by the "regular treatment" he means the tub bath, forced feeding, and active stimulation method of treating the disease. The "rational" treatment: Cold baths and the cold pack. Absolute starvation until the appetite returns. Water in generous amounts. The starvation (absolute) can be kept up for one or two weeks, if necessary. The author seems to assert that a simple (?) fever can be turned into typhoid by feeding. "I think that I am not making an overstatement when I say that if every patient beginning to be feverish, with lack of appetite, nausea, etc., were treated on the plan herein indicated, the three hundred thousand cases of typhoid fever occurring in this country every year would be reduced to perhaps fifty thousand, and, of these, forty-five thousand would be restored to health after comparatively comfortable sicknesses."

AMERICAN MEDICINE.

July 9, 1904.

1. The Treatment of Gallstones Found as a Coincidence in Abdominal or Pelvic Operations, By John G. Clark.
2. Œdema, By S. J. Meltzer.
3. Two Cases of Renal Tuberculosis, Illustrating the Results of Nephrectomy, By I. N. Danforth.
4. A Case of Chronic Pancreatitis, Diagnosis, Operation, Recovery, By J. W. Chambers, and Julius Friedenwald.
5. Concerning the Invasion Period of the Malignant (Æstivoautumnal) Tertian Malarial Parasite, By Thomas W. Jackson.
6. Gangrene of the Finger Caused by Carbolic Acid, By George Erety Shoemaker.
7. The Training of the Surgeon, By William Stewart Halsted.

1. **Gallstones.**—Clark concludes: (1) The usual statement that 95 per cent. of gallstones produce no symptoms is fallacious. (2) Recent researches point to the bacteriological origin of gallstones. (3) Bile is not bactericidal. (4) Many more or less vague symptoms attributed to gastrointestinal or general constitutional disturbances may arise from toxines elaborated around foreign bodies in the gallbladder. (5) Clinicians admit that there is a hiatus in the clinical symptoms between the early formation of gallstones and the socalled classic attacks of biliary colic with jaundice. (6) Abdominal surgeons should make a careful record of gastrointestinal or hepatic symptoms and of vague epigastric pains and associate these with an examination of the gallbladder, with a view to establish a further link in the symptomatology of cholelithiasis. (7) The coincident removal of gallstones with some other abdominal operation is not a hazardous undertaking. (8) In the author's series of cases, more than 50 per cent. showed symptoms which could, with great assurance, be attributed to the presence of gallstones. (9) This coincident operation should be dictated by the most careful surgical judgment, for if the patient is in a critical condition from a prolonged operation, or the primary operation has been a septic one, this extra operation may be attended by serious results.

4. **Chronic Pancreatitis.**—Chambers's and Friedenwald's case is interesting from the fact that notwithstanding the absence of a tumor, glycosuria,

and jaundice, a diagnosis of pancreatitis was made from the character of the stools, the paroxysmal pains in the epigastrium, the vomiting and passage of blood from the bowels, the rapid emaciation, and from the fact that thorough drainage through the gallbladder gave almost immediate as well as permanent relief.

5. **The Period of Invasion in Æstivoautumnal Fever.**—Jackson, from a study of an outbreak of malignant tertian malarial fever, which occurred in a cavalry troop serving in the Philippines, concludes that the period of incubation is between ten and eleven days. Eighteen out of forty-five men in the troop were infected.

LANCET.

June 25, 1904.

1. (1) The Medicine and the Medicine God of the Egyptians; Contemporary Views of the Circulation; (2) Prevention in Valvular Disease. (The Harveian Oration), By R. Caton.
2. Deaths in Childbed: a Preventable Mortality. (Milroy Lectures: I Concluded), By W. Williams.
3. The Diagnosis of Tumors in the Upper Rectum and Sigmoid Flexure by Means of the Electric Sigmoidoscope. By P. L. Mummery.
4. Strangulation of the Fully Descended Testicle from Torsion of a Pedunculated Mesorchium, By G. H. Edington.
5. On the Prophylactic Use of Morphia in Cases of Severe Cerebral Injury, By J. A. MacDougall.
6. Notes on Three Cases of Intestinal Obstruction, By G. R. Anderson.
7. A Case of Perforated Gastric Ulcer with Appendicitis; Operation; Recovery, By V. W. Low.
8. The Enumeration of Leucocytes, By A. E. Jones.
9. Traumatic Gangrene of the Scrotum with Almost Entire Separation; Recovery; Plastic Operation for Formation of New Scrotum, By A. G. Bisset.
10. A Case of Mania from Traumatic Meningitis; Trephining; Evacuation of Serous Effusion; Complete Recovery, By C. Brook.

1. See Abstract of *British Medical Journal* for June 25th, in this number of the *Journal.*

2. **Deaths in Childbed.**—Williams, in the Milroy lectures, makes a statistical study of the deaths in childbed occurring in the county of Glamorgan. He concludes 1. Puerperal fever often, though by no means as a general rule, selects for its ravages the most unsanitary localities. 2. The large and fairsized towns in Wales show much the same mortality as similar towns in other parts of the Kingdom. 3. In the densely populated mining valleys the mortality from puerperal fever is very high. This is to be attributed, in a great measure, to unskilled and ignorant midwives. 4. The mortality from accidents of childbirth is only slightly higher than that for England, is unevenly distributed, and highest in a few of the mining valleys. The author gives in detail the mortality statistics of two large London lying-in hospitals. It is noted that flooding increases rapidly with age, and so does rupture of the uterus. The organs wear out. Puerperal convulsions are much more fatal from fifteen to twenty-five years of age. The muscular irritability is greatest at that period. Puerperal mania is probably of most frequent occurrence among young women, but most fatal among those of more advanced years.

3. **The Sigmoidoscope.**—Mummery calls attention to the great value of Strauss's sigmoidoscope in the diagnosis of tumors in the upper rectum and sigmoid flexure. The instrument consists of a tube, two centimetres in diameter and thirty centimetres long. There is an electric lamp inside the tube, one inch from the inner end. The external end of the tube is closed by an attachable glass window, its place being taken by the handle of the obturator when the tube is inserted. And finally there is a tap through which the bowel can be inflated. The obturator is removed after the tube has been passed in for six inches, and the lamp and window attached. The tube is then pushed into the hollow of the sacrum by tilting the outer end upward, thus clearing the anterior rectal valve. It is then tilted downward to clear the sacral prominence, and thus enters the last loop of the sigmoid. Only enough air should be pumped in to push aside the walls of the bowel in front of the tube. On withdrawing the tube the whole lumen of the bowel comes into view and any growth is easily detected. When a growth is seen its position and size are easily ascertained and by pushing it gently with the end of the tube it can be told whether it is fixed or movable.

4. **Strangulation of the Testicle.**—Edington reports the case of a baby, aged seven months, suffering from strangulation of a fully descended testicle from torsion of a pedunculated mesorchium. The strangulated organ, with its tunica, was removed by peeling the latter off from the inner surface of the scrotal sac. On examination it was found that the testicle was attached to the tunica vaginalis by a narrow pedicle which had become twisted, thus strangulating the testicle. The interesting points in the case were the following: (1) Extreme youth of patient; (2) testicle fully descended; (3) no history of injury; (4) absence of constitutional signs; (5) local signs not diagnostic; and (6) presence of "reversion" with pedunculated mesorchium.

5. **Morphine in Cerebral Injury.**—MacDougall's experience has been that morphine may be given freely in cases of meningitis and cerebral injury with most excellent results, its good action being probably brought about largely through its effects upon the vascular and nervous systems, inducing rest. If after severe brain injury the patient is kept gently under the influence of morphine convalescence is more rapid and steady, grave cerebral symptoms are wanting, a rise of temperature is usually absent. He reports three cases which substantiate these statements. In pistol shot wounds of the brain the trephine should be immediately used. No idea as to the amount of fracture of the inner table of the skull can be formed from the condition of the external plate. Opportunity is also afforded for the clearing away of pulped and irreparably damaged brain tissue.

6. **Intestinal Obstruction.**—Anderson reports three instructive cases of intestinal obstruction. The

first case was that of an unsuspected obturator hernia in an elderly woman. In the second the small intestines were so matted together that obstruction, which had been incomplete for some time, became suddenly complete and lateral anastomosis had to be performed. The last case was one of chronic obstruction due to inflammatory exudation in the pelvis, necessitating a temporary colotomy for its relief. All three patients made excellent recoveries.

7. **Appendicitis and Gastric Ulcer.**—Low reports a case of simultaneous occurrence of appendicitis and perforation of a gastric ulcer, in a girl aged seventeen years. Operation was performed, and the patient made a perfect recovery. The case was considered before the operation as one of appendicitis.

8. **Leucocyte Counts.**—Jones draws attention to some questions of technics with a view to increase the value of leucocytic examinations. He recommends the use of the Abbe-Zeiss slide, of acetic acid solution as a diluent, and of a dilution of one to twenty. By adjusting the draw tube of the eye piece of the microscope so that the diameter of the field just equals six and two fifths sides of the small squares of the counting slide, all that is necessary is to count the number of leucocytes in twenty-five fields, and add two ciphers. The result will be the number of leucocytes in one cubic millimetre of blood. In making differential counts each class of corpuscle should be described in absolute numbers, and not less than five hundred corpuscles should be counted.

BRITISH MEDICAL JOURNAL.

June 25, 1904.

1. I. I-em-hotep, the Egyptian God of Medicine; Egyptian Views as to the Circulation. II. Rest in Incipient Valvular Disease. (The Harveian Oration), By R. Caton.
2. The Irish Poor Law Medical Service, By J. O'Carroll.
3. The Strike in the Poor Law Medical Service, By R. F. Tobin.
4. Congenital Hypertrophic Stenosis of the Pylorus: Pyloroplasty; Result. A Contribution to the Ætiology and Treatment of the Affection, with Notes of a Case, By J. McCaw, and R. Campbell.
5. Acute Dermatitis Produced by Satin Wood Irritation, By H. E. Jones.

1. **Incipient Valvular Disease.**—Caton, in the first part of his paper, discusses medicine in ancient Egypt, and the partial knowledge as to the circulation of the blood attained by the priests. He then goes on to insist on the great value of rest as preventive of valvular disease in cases of acute rheumatism. The rheumatic joints are as severely affected as the valves of the heart, yet they recover completely. The merciful influence of pain in the part affected insures repose. But when the heart is affected pain can give no signal for rest, for the heart must continue its work. Were an acutely inflamed joint to be flexed and extended fifty times a minute, it is most unlikely that restoration of normal function would follow. So that we should try to give the heart the same advantages, the same opportunities for repair, as far as possible, as the joints enjoy. The most absolute quiet is enjoined: the patient lies with the head at a low level; pain and fever are subdued; no excitement is permitted. The patient is made as comfortable as possible and sleep is encouraged. In addition, sodium or potassium iodide is given, partly to help in the absorption of morbid exudations, but chiefly to lower vascular tension. And finally, the cardiac vasomotor and trophic nerves are reflexly influenced by gentle and almost painless stimulation of the first four dorsal nerves, which are in close relation with the heart. But rest, rest for many weeks, is the most important factor in the abortive treatment of endocarditis. The heart is slowed, the diastole lengthened, and the blood pressure lowered. Minimisation of functional activity renders possible repair of the valves; and such repair can only take place in the early stages of endocarditis. The diagnosis must be made early, and it may safely be assumed that in the great majority of instances in which marked and continuing *bruit* occurs, endocarditis is present, and not mere dilatation. The greatest difficulty will be to persuade the patient to submit to a sufficiently long period of rest. The author has carried out this mode of treatment for twenty years and the results have been striking. The comparative absence of permanent heart disease after endocarditis has been in marked contrast to its frequency prior to the adoption of the treatment by rest.

4. **Congenital Pyloric Stenosis.**—McCaw and Campbell report a case of congenital hypertrophic stenosis of the pylorus occurring in a male infant. For two weeks the child did well, but then began to vomit and steadily lost ground. At first vomiting would follow the taking of food: later it occurred only at night, when everything taken through the day would be thrown off. The movements of the bowels were small and scanty. A diagnosis of stenosis of the pylorus was made, and pyloroplasty was performed, the pylorus being incised longitudinally. Vomiting continued, however, and the child died on the sixth day after operation. At the autopsy the pylorus was found to readily admit a pencil, but on filling the stomach with water, not a drop passed through the pylorus. This was found to be due to the redundant mucous membrane at the pyloric orifice falling together into folds and blocking the canal. The small intestine was so small and collapsed that its lumen was almost obliterated, and it would not have been possible to perform a satisfactory gastroenterostomy. In another such case the authors would obviate the danger of blocking by free resection of the redundant mucous membrane and the insertion of a small bone bobbin.

5. **Satin Wood Poisoning.**—Jones reports an outbreak of acute dermatitis occurring among cabinet-makers in a shipyard. The inflammation affected the face, neck, hands and wrists, and very much resembled acute erysipelas. The cause was found to be some irritant in the dust arising from East Indian satin wood, with which all the men affected were working at the time. Not all the workers were affected, but many had speedy recurrence of the attacks when again exposed to the dust of the satin wood.

AMERICAN MEDICAL ASSOCIATION.

Fifty-fifth Annual Session, Atlantic City, June 7, 8, 9, and 10, 1904.

SECTION ON OBSTETRICS AND DISEASES OF WOMEN.

Third Day, Thursday, June 9th.

Morning Session.

The Surgical Treatment of Bilocular Uterus and Bifid Vagina was the title of a paper read by Dr. H. W. LONGYEAR, of Detroit. He said that a thorough search of the literature bearing on the subject had unearthed very little that was satisfactory regarding the treatment. The malformation, of course, was not at all common, but it was easy of correction and the patient should be operated upon at as early an age as possible, that was, before maturity, so as to avoid the accident of pregnancy and parturition which were liable to attend such an anomaly of development. Before operating it was extremely important to make a differential diagnosis between uterus duplex and uterus bicornis. The operation consisted simply in dividing the sæpta between the two vaginas and the two uteri, thus making one vagina and one uterus. He reported two cases which had come under his observation recently.

A Plea for More Thorough Examination of Doubtful Specimens of Ectopic Pregnancy.—Dr. J. WESLEY BOVÉE, of Washington, D. C., read this paper. He said that every abdominal surgeon met with cases in which a diagnosis of ectopic pregnancy had been made, but in which no fœtus or placenta was found. In observing the work of others he was sure that this diagnosis was adhered to, even without microscopical examination, if blood, either loose or encysted, was found in the peritoneal cavity, and a tube or ovary, or both, was distended by blood coagulum. In his own experience he had several times found that a microscopical examination of such specimens had caused the diagnosis to be changed.

In these cases of tubal and ovarian hæmorrhage from other causes there frequently was a history of interrupted menstruation and sudden and severe pelvic pain accompanied by profuse uterine hæmorrhage and all the subjective and objective symptoms of disturbed ectopic pregnancy. In one of his cases the hæmorrhage had continued during the six months preceding operation, and a mass practically filled the pelvis, forcing the uterus and opposite appendage far to one side and upward. At the operation the mass was found to be a large accumulation of partially walled in blood, both fluid and coagulated, an ovary nearly normal, and a large tube distended nearly to the isthmus by blood clot. The fimbriated end was widely dilated and considerable free blood was in the peritoneal cavity. The indications were strongly suggestive of tubal pregnancy but microscopical examination failed to find villi or any other evidence of pregnancy.

Between January 1, 1899, and June 1, 1904, he had operated ten times at Columbia Hospital for Women, Washington, in cases in which the macroscopical examination of the removed specimens in conjunction with the case histories gave very strong presumption of tubal abortion or ruptured tubal pregnancy, but in which the microscopical examination proved such diagnosis untenable. In these ten cases the microscopical diagnoses were hæmatosalpinx in six; chronic salpingitis and ovarian hæmatoma in one; sclerotic ovary with profuse hæmorrhage in one; ovarian papilliferous adenocystoma with salpingitis in one; and in another, chronic salpingitis with a sclerotic and hæmorrhagic ovary and a carcinomatous one.

A study of these ten cases convinced him that many specimens removed in cases diagnosticated as ectopic pregnancies were not such, and that in this class of cases the differential diagnosis was usually not made as the aid of the microscope was not invoked as a routine procedure. He was thoroughly convinced that the microscopical examination of every specimen presumptively diagnosticated as of ectopic pregnancy should be put to the microscopic test. It is only by this process that a most thorough knowledge might be secured of the causes of the conditions suggestive of disturbed ectopic gestation. The effect of such routine examination would be a more thorough knowledge of the pathological conditions of the ovaries and tubes, more reliable statistics, and the prevention of stigmata being placed upon chaste women.

Extrauterine Pregnancy With Atypical Symptoms.—This paper was read by Dr. W. B. DORSETT, of St. Louis. He said that a diligent search of medical literature had failed to reveal the record of many cases of extrauterine pregnancy in which anything aside from what might be called typical symptoms were presented. The proportion of cases of extrauterine to normal pregnancy, according to Hirst, was about 1 to 500, and he quoted Winkel to the effect that it occurred in 16 out of 22,000 births, and Bandl, whose experience had been very large, as 3 in 60,000. Hirst stated that he had operated 59 times, with 3 deaths. Bland Sutton had said that a healthy Falloppian tube was more likely to become gravid than one that had been inflamed. In this author's more recent work he said that the fact that pregnancy occurred in a tube after a long period of sterility in women that had borne children had given color to the suggestion that the patients had suffered from desquamative salpingitis, and the destruction of the proper epithelium would account for the occurrence of tubal gestation, inasmuch as it put the mucous lining of the tubes into a condition exactly similar to that of the uterus after menstruation. It would be seen that he differed from most authors, in that he ignored the sequences of inflammatory disease as a factor in the causation of tubal gestation and clung rather to the idea that the denudation of the tube alone fitted it as an abiding place for the impregnated ovum.

The speaker had operated upon 41 patients suffering from extrauterine pregnancy, with a mortality of 6. The symptoms in many of the cases were not such as to lead him to diagnosticate ectopic pregnancy, and it was only when the abdomens had been opened that the true condition of affairs became apparent. Appendicitis, abortion, salpingitis, and the like, were supposed to be the cause of the illness.

The Influence of Ovarian Implantation on Menstruation in Women was the title of the next paper, read by Dr. A. PALMER DUDLEY, of New York. At the meeting of the International Congress for Gynæcology and Obstetrics, held at Amsterdam five years ago, the speaker had presented a short report of his first effort in this direction. It was the first case of implantation, that was, into the uterine tissue, in contradistinction to transplantation to different sections of the pelvic structure, for instance, to the posterior surface of the broad ligament, the cul de sac, and the remaining stump of the Falloppian tube, as reported by Glass, of Utica, and by Morris, of New York. The two procedures were not to be compared, as one acted as a graft without privileges, while the other, which the speaker advocated, placed the ovarian structure within the uterine cavity with every privilege of function that Nature could bestow upon it. He reported one case in considerable detail.

His technics was as follows: He split the horn of the uterus and removed from the inner surface a portion of the tissue corresponding nearly in size to that of the ovarian tissue it was proposed to implant. An important step was the removal of the uterine mucosa also. The ovary, still attached to its ligament, was then placed in the opening made for it, where it became adherent.

In concluding his paper the author formulated the following queries: 1. Is the procedure justifiable, except in rare cases in which the patient, for domestic reasons, expressly desires the function of menstruation to be continued if possible? 2. Is it worth the effort, from a physiological standpoint? 3. Will the implanted ovarian tissue essentially resemble a mural fibroid in its influence on the uterus, resulting in menorrhagia or metrorrhagia, or in creating, as some observers attribute to the fibroid, a relative increase in the number of corporeal cancers? 4. Is it possible that pregnancy ultimately may take place? If cases of true ovarian pregnancy occur, which is known to be true, why not pregnancy in the imbedded ovarian structure thus grafted, and if it occurs, what are the prospects of its being normal in character? 5. Provided pregnancy does occur and goes on to term, what would be the dangers attending delivery?

A Plea for Conservative Operations on the Ovaries, from a Neurotic Standpoint.—This paper was read by Dr. J. W. COKENOWER, of Des Moines, Iowa. He said that the subject of ovarian neuroses was one of the most difficult with which the gynæcologist had to deal with to-day, because of his inability to fix a standard from which to determine the beginning of surgical treatment; therefore, the question to decide was whether the woman's symptoms arose directly or indirectly from the pelvic disease. This being decided, the treatment was simplified, but should the pelvic disease not enter into the case further than as one of many other factors, it was not a surgical case and should be treated accordingly. It was this very factor which complicated the subject and had discredited legitimate surgery and brought to view the shining light of the operator, while the conscientious surgeon prevented damage to the patient and injury to his profession.

The real cause of headache, backache, pain in the iliac regions, disordered menstruation, and the like, frequently originated from gonorrhœa, abortions, endometritis, and pelvic inflammations, which kept up an irritable condition of the ovaries, and the woman suffered for years as a consequence. The intimate relationship existing between diseased conditions of the reproductive organs of the female and functional disturbance and organic changes in other parts of the body should be better understood; also that fermentation and putrefaction within the intestinal canal would produce autoinfection, the causative factors of ptomaines and leucomaines, which were most prolific in the production of nervous manifestations.

Many surgical procedures heretofore undertaken with confidence had been sadly disappointing and had utterly failed to relieve the condition for which they were instituted. The neurasthenic and functional disturbances had remained, and both patient and surgeon had lived to regret the treatment adopted. A few gynæcologists condemned oophorectomy in neuroses and denied the existence of genital neurasthenia. This, in the opinion of the speaker, was an extreme view of the subject, and was as injudicious, in the light of clinical facts, as were the teachings of those who reported such large numbers of these patients as cured by the removal of the ovaries. Statistics of the surgical and nonsurgical aspect of ovarian neurosis did not convince one that either extreme should be adhered to, but rather that an intermediate position should be adopted. Each case should be judged and treated on its merits.

Afternoon Session.

The committee on nomination of officers of the section for the ensuing year presented its report, as follows: For chairman, Dr. C. L. Bonifield, of Cincinnati; for vice chairman, Dr. F. F. Lawrence, of Columbus, Ohio; for secretary, Dr. Walter P. Manton, of Detroit, Mich.; for delegate to the House of Delegates, Dr. J. Wesley Bovée, of Washington, D. C. On motion, these were declared unanimously elected.

Some Further Observation on the Use of the Stem Pessary for Scanty Menstruation, Dysmenorrhœa, Infantile Uterus, and Sterility, was the title of the next paper, read by Dr. J. H. CARSTENS, of Detroit. He said that dysmenorrhœa in young girls was often produced by infantile uteri, when it occurred after thirty; in virgins by premature atrophy of the uterus. The uterus could only be developed by exercise; this was accomplished by the stem pessary, as the uterus contracted and tried to expel it. Recurring stenosis or flexions were often cured by the stem if kept in for six months or a year. Scanty menstruation in fleshy women was wonderfully improved by the use of the stem pessary. Amenorrhœa caused by any of the above conditions, or sometimes without our ability to recognize the cause, was promptly relieved in the same manner. As all the above conditions caused sterility, the latter was often cured by the introduction of a properly fitting stem. Any kind of stem pessary would do, but the hard rubber Chapman model was the one used by himself. All pelvic diseases, ovarian or tubal, must be absolutely excluded. The stem was only used in disturbances caused by the uterus alone.

Injury to the Rectum in the Gynæcologic Examinations was the title of a paper read by Dr. H. A. Kelly, of Baltimore. He called attention at some length to the importance of the rectum as an avenue of investigation in a majority of gynæcological examinations, and said that it was too frequently neglected. He detailed the obstacles and dangers encountered by this route and the best methods of avoiding them. The paper wound up with a recital of cases which had occurred in his hospital and private practice.

The Propriety, Indications, and Methods for the Termination of Pregnancy, by Dr. Frank A. Higgins, of Boston, was the next paper read. He said that it was apparent that there was a strong tendency in the medical profession toward a broadening of the indications for the termination of pregnancy. The wisdom of this could hardly be questioned; and while it might be said that this might open the way for the not over-conscientious physician, by distortion of the symptoms and indications, to perform abortion in many unnecessary cases, it was believed that this would not be true to any large extent, as the great majority of physicians were undoubtedly honest in this respect, as in other things, and were no more likely to go astray than formerly. It was formerly considered that the termination of pregnancy was indicated only in the presence of some acute condition, which immediately and seriously threatened the life of the mother, such as pernicious vomiting, hæmorrhage, convulsions, or toxæmia. On the other hand, in the presence of diseases which were not of an immediately threatening nature, but which usually became dangerous only at or near the conclusion of pregnancy, such as certain forms of heart disease, chronic nephritis, diabetes, and phthisis, abortion was not to be thought of as a prophylactic measure early in pregnancy as a preventive of the progress of the diseased condition. If, late in pregnancy, however, the disease should threaten the mother's life, then induction of labor was entirely justified. Under the somewhat changed conditions now existing, what might be termed the medical indications for abortion in early pregnancy were seen chiefly in the presence of certain chronic diseases which usually were aggravated by gravidity. Among these were tuberculosis, certain forms of heart disease, chronic kidney disease, acute nephritis, grave anæmia, diabetes, chorea, etc.

The speaker then detailed the different methods of inducing labor. He decried the injection of fluids into the uterus under these circumstances, as even the introduction of sterile water, to cause abortion, had produced serious consequences. He also described an instrument of his own devising for the forcible dilatation of the cervix.

Adherent Uterus as a Complication of Labor.—This paper was read by Dr. J. C. Applegate, of Philadelphia. He said of the adherent uterus as a dystociac factor in labor, that that following ventral fixation was most frequent and most serious. Next came ventral suspension, which, when followed by suppuration, became fixation. Pregnancy should be terminated as soon as it was clearly demonstrated, by repeated examinations, that the lower segment of the anterior wall of the uterus, including the cervix thickening, was not being utilized in the enlargement of pregnancy. If offspring was especially desired, the patient should be allowed to go to term, but with full knowledge of the gravity of labor under such circumstances. An essential counterpart of the fixation operation was the amputation of the hypertrophied cervix, especially the anterior lip, thus getting rid of the greatest resistance in a labor of this character. It did not seem to increase the tendency to laceration.

Advanced science had not yet given us an absolutely safe operation for retrodisplacements that would stand the test of pregnancy under all circumstances. The round-ligament operations were admirable, but their object was frequently defeated by pregnancy, by reason of relaxation and elongation of the ligaments.

Hysteropexy, with slightly different technics from that usually practised, the speaker believed would fulfil the requirements, would not complicate pregnancy or labor, and would support the uterus after labor. Two sutures might suspend the uterus to the abdominal wall anteriorly, but should be placed in the anterior surface of the uterus opposite or below the insertion of the tubes, under which circumstances the uterus might expand symmetrically in pregnancy and contract regularly in labor. The patient should be allowed to proceed to term without the danger of torsion of the uterus, malposition of the ovary, uterine inertia, or rupture of the uterus, and the uterus should still be supported after labor.

The Management of the Acute Stages of Abdominal Inflammation.—This paper was read by Dr. George Erety Shoemaker, of Philadelphia, who said that the first matter of importance was differential diagnosis. His contribution treated only of acute conditions. It was always necessary to distinguish carefully between acute inflammation of the gallbladder and of the kidney, pancreas, appendix, and tubes. Perforation of the viscera, ureteral calculus, thrombosis, mesenteric volvulus, and other conditions must also be considered. Extensive thrombosis of the mesenteric vessels resembled pancreatitis and acute intestinal obstruction and must always be reckoned with. Diaphragmatic pleurisy and pneumonia were at times secondary to obscure appendictis, and must not be allowed to obscure the diagnosis.

As regarded the treatment, in such cases as appendicitis and perforation one should operate at the earliest possible moment. Seen for the first time, late in their course, they presented special problems, and the indication for operation necessarily was somewhat different. The peritonæum should never be opened in cases of streptococcic infection. No radical operation should be performed in acute gonorrhœal salpingitis. Cul de sac drainage should be practised if necessary. It should be remembered that the temperature range, the presence of tympany, or the absence of pain was misleading to a degree in formulating a diagnosis.

At the conclusion of the reading of this paper, Dr. C. L. BONIFIELD, the newly elected chairman, was introduced, and made a few happy remarks, after which the section adjourned *sine die*.

SECTION ON DISEASES OF CHILDREN.

Second Day, Wednesday, June 8th.

How to Produce the Best Milk for Artificial Infant Feeding.—Dr. EDWARD F. BRUSH, of Mt. Vernon, N. Y., stated that many infants must be nourished artificially. The reasons for this were plain. Sometimes the mother was overworked, insufficiently nourished, harrassed by a vicious husband and many other children; often incompetent by her own vicious appetite or unfortunate temper; sometimes by inability to secrete milk. The business of properly nourishing an infant was a serious one, and had to be attended to with an intense desire of duty. The mother must be healthy, love her child, and not nurse it when she was seriously disturbed, either mentally or physically.

That the bovine race was notoriously prone to tuberculosis and other forms of chronic disease was admitted, and the better the breed from the dairyman's point of view, the more numerously was it afflicted by chronic disease. Therefore, the first and most important consideration in reforming the methods of supplying the milk for infant food began with the breeding. The cow supplying milk for infants should be bred from rugged animals, not closely related; she should be quiet in disposition and perfectly sound in health; she should be comparatively well nourished; that is, not excessively fat or emaciated. The cow was man's forager and nurse, and if he attended to her properly, she was the best of his food producers, but she would surely furnish poison for him as easily as good food, if he himself did not understand how to prevent her from doing so. Dr. Brush expressed the opinion that the wealthy amateur dairyman did as much harm, if not more, than the careless, poor owner of dairy cows. Dirt that was not pathogenic was far less injurious than milk from perturbed or nervous cows. The periodical injection of tuberculin must be disturbing. The effort to maintain a herd of aristocratic highly bred Jerseys might do well for a butter herd, but they were dangerous for the purpose of supplying milk to feed babies. Good cow's milk would nourish the infant without the intervention of the chemist, while bad milk would kill in spite of the men who knew how to modify milk according to the most approved method. The surest test of the milk was the baby itself. The percentages of fat, the proportions of proteids, and all the other chemical data amounted to nothing, if the baby was thriving, the milk was good.

The Initial Contamination of Dairy Milk.—Dr. RICHARD COLE NEWTON, of Montclair, N. J., stated that it had hitherto been supposed that milk, while in the cow's udder, was sterile, and that the bacterial content of the market product could be reduced to zero if infection of the milk after it left the udder could be prevented. Conn and others, however, had been unable to produce sterile milk, although every possible precaution had been taken in milking and in handling the milk. From time immemorial, milk had been subjected to a process of straining sooner or later after the conclusion of the milking, and for many years, metallic strainers had been used for that purpose. It had been demonstrated, however, that milk put through such strainers underwent little improvement, excepting that it was freed from pieces of hay, straw, hair, and such larger objects, but its keeping qualities from its bacterial content were not improved. Besides this, much visible dirt was left in milk that had been strained in the ordinary way. Of this dirt, a large proportion was cow dung, which was very soluble in warm milk, so that a considerable portion of that finding its way into the milk was quickly dissolved, and could not be removed by subsequent straining. For the purpose of obtaining greater cleanliness, Professor Conn devised a covered milk pail, with a piece of gauze or cheesecloth stretched over a small opening in the cover. This pail answered its purpose very well. By its use, Conn and his colleagues at the Storr's Experimental Station were able to exclude 66 per cent. of the initial contamination of milk by dirt, with very great improvement in its character and keeping qualities. The apparatus had been further simplified, so that now there were only three pieces to the entire mechanism, namely, the pail, the cover, and the sterilized cheesecloth. Any farmer could buy an Arnold's sterilizer, a few bolts of cheesecloth, and one or more covered pails, and by using a sufficient amount of ice could send milk to the market with a bacterial content of less than 30,000 per c. c. No soap of any kind should be used in washing the cheesecloth, which should be boiled with ordinary soda or some alkaline powder.

Dr. J. P. CROZIER GRIFFITH, of Philadelphia, said the papers of Dr. Brush and Dr. Newton were in thorough accord with the trend of the modern scientific study of milk, and certainly with the experience of those who had to do with the artificial feeding of infants. The great object to be sought for was to get pure milk. Sterilization and Pasteurization, good as they were, were only resorted to because we knew of nothing better to do under the circumstances.

Dr. F. L. SMITH, of Bridgeport, Conn., spoke of the contamination of the milk in the feeding of the cow. He mentioned an instance where infants developed cholera infantum as the result of drinking milk from cows that had broken into the cornfield and made a hearty meal of green corn. In another case the milk became unfit to drink because the cows had been fed on oat straw containing a little wild mustard. Turnips and turnip-tips would also impart a strong flavor to the milk. The milk of cows was readily affected by the food they ate. Jersey cows were especially susceptible in that respect.

Dr. L. C. AGER, of Brooklyn, N. Y., spoke of eliminating one possible source of contamination in the handling of the milk by having it bottled at the farm instead of at the creamery.

Dr. THOMAS S. SOUTHWORTH, of New York, said that every one was in accord with the fact that pure milk was of the highest importance. The gross chemistry of milk was fairly well understood, but the finer points, the exact adjustment of the milk to the child, had not yet been worked out. The view was no longer held that cow's milk could be made the equivalent of breast milk. Breast milk was a fluid that was formed by the human mother for the human child, and when the child was taken from the breast and put upon artificial food, the condition could be fairly called a pathological one.

Dr. W. D. Schwartz, of Portland, Ind., called attention to the danger of large-sized nursing bottles, with the nipple attached to a long rubber tube.

Dr. John Lovett Morse, of Boston, said that while the subject of securing pure milk was of the first importance, the value of properly modified milk should not be lost sight of. Most babies would not thrive on unmodified cow's milk, even if it was pure.

Chronic Constipation in the Infant.—Dr. J. Ross Snyder, of Birmingham, Ala., read this paper. He stated that complete digestion embraced a threefold function, conversion, absorption, and evacuation. There was a conversion and absorption of the nutrient elements of the food, and following this, an evacuation of the refuse. The successful performance of these several divisions of the digestive functions was dependent on each other, on the character of the food ingested, and on certain secretions and motions of the organs involved. There were certain anatomical differences in the digestive tract of the infant that were usually regarded as predisposing to constipation. The intestinal canal was relatively longer in the infant than in the adult. It contained a larger number of loops and coils, and its calibre was relatively smaller. The peristaltic movements were slight, because the muscular structure was undeveloped. The walls generally were thinner and weaker in the infant than in the adult.

Because a great many constipated mothers had constipated babies, some seemed to regard this as another expression of hereditary influence. Constipation in the mother, however, or its causes, would produce just the changes in her milk that rendered it constipating of itself. So far as the infant was concerned, the real causes of constipation were to be found only in the errors of hygiene or of the diet. Overcrowding, lack of sunshine, lack of fresh air, might so interfere with the digestive process and with the normal development of the child, that irreparable injuries were produced.

Treatment: If the disorder resulted from unhygienic conditions, no amount of castor oil or of nux vomica would better those conditions in the least. If the diet was too rich in proteids, the most liberal administration of salts, of suppositories or enemas would not lessen the percentage of those proteids by the smallest part of a fraction. The treatment of constipation was not difficult if the condition was interfered with early, and dealt with intelligently. A knowledge of the relationship between the fæces and the ingesta was prerequisite. General directions, such as were found in some textbooks, for the use of cream, oatmeal, etc., were misleading. Primarily, the cause of the condition should be found, and no routine method of treatment would prove satisfactory. The cause, when found, suggested its own correction. If, however, the condition was neglected while the child was yet a young infant, the treatment became an altogether different and more difficult question. If the constipation was not of very long standing, atony of the bowel might be overcome by correcting the diet and by endeavoring to establish habit. The insertion of an ordinary clinical thermometer, well vaselined, while the child was in posture, often proved successful. Soap and glycerin suppositories were to be avoided, if possible. Massage should never be practised on the young.

Dr. Isaac A. Abt, of Chicago, said that while the administration of fats was generally regarded as beneficial in constipation, it had been shown that in some cases, the use of over-fatted food, especially cream, had led to the formation of scybala and an aggravation of the trouble.

The Effect on the Nervous System of Children of Uncorrected Refractive Errors and Muscular Imbalance.—By Dr. J. H. Claiborne, of New York. The author's conclusions were as follows: 1. Nervous symptoms of a variety of kinds occur as the result of eyestrain. 2. Eyestrain is due to refraction errors, the imbalance of the external ocular muscular system, or, more frequently, to a combination of the two. 3. Of these two, the refractive errors are by far the more frequent cause. 4. Muscular imbalance alone may cause it. 5. Headache is by far the most common nervous symptom in children caused by eyestrain. 6. The headache was chronic, or induced directly by near work, and was generally in the forehead or temples. 7. Migraine or hemicrania due to eyestrain is comparatively rare in children. 8. Any nervous symptom in children should arouse the suspicion of ocular defects, either as a direct or as a contributing cause. 9. The refractive correction should be made under atropine. 10. Muscular defects are secondary to the refractive, and should be corrected only in certain cases.

Congenital Occlusion of the Lacrymal Canal, and Acute Contagious Inflammation of the Conjunctiva Occurring in Children.—By Dr. John R. Weeks, of New York. The writer discussed in a general manner the acute contagious inflammations of the conjunctiva, as seen in children, and referred briefly to congenital occlusion of the lacrymal canal. The latter condition was often mistaken for acute conjunctivitis, and it required careful observation to avoid confounding the two. Dr. Weeks said that the acute contagious ophthalmias to which children were subject were those that developed as a consequence of infection from the pneumococcus, the Koch-Weeks bacillus, the gonococcus and the Klebs-Löffler bacillus. The clinical picture as the result of infection from the first two microorganisms mentioned was that of a mucopurulent conjunctivitis. A pneumococcus conjunctivitis was indistinguishable, clinically, from a Koch-Weeks bacillus conjunctivitis. Acute mucopurulent conjunctivitis due to the pneumococcus or to the small bacillus, was devoid of danger to vision, excepting in an extremely small percentage of cases, while gonorrhœa and diphtheria might cause great damage to vision in a large percentage of cases. For this reason, the true diagnosis was important, and if any uncertainty existed regarding it, a microscopical examination of the secretion should be made. The remainder of Dr. Weeks's paper was devoted to a discussion of the treatment of these various forms of conjunctival inflammation.

Dr. Arthur G. Bennett, of Buffalo, said that an examination of the eyes of the pupils at the truant school in Buffalo had disclosed the fact that a great majority of the children had marked defects of vision. Many of them were markedly benefited by the application of proper glasses.

Dr. Herman Jarecky, of New York, said that in his work at the Manhattan Eye and Ear Hospital and the Sydenham Dispensary quite a large number of cases of chorea in children had been under observation for a long time, and he could not recall a single instance in which the chorea was cured by correcting the eye errors. In chorea there was apparently a muscular imbalance of the whole system, of which the eye condition was only a part.

Enuresis.—By Dr. Maurice Ostheimer and Dr. I. Valentine Levi, of Philadelphia. The writers stated that during the past five years, among 1,657 patients treated at the Children's Dispensary of the University Hospital in Philadelphia, they had met with 90 cases of enuresis. This showed the comparative frequency of this condition in children. Among these 90 cases, the enuresis was nocturnal in 53, diurnal in two, and both nocturnal and diurnal in 35. While there was no one cause of enuresis, reduced tone of the vesical sphincter muscle was present in most cases. This was often the result of some antecedent or simultaneous disease. Among the many methods of treatment, they found that in the vast majority of cases, recovery followed the use of the tincture of belladonna in ascending doses, in the mild cases; and of atropine and strychnine in the intractable cases. The treatment of the latter class of cases was begun with atropine, grain 1-240th, and strychnine, grain 1-480th, to one drop of water, and gradually increased until incontinence ceased. The highest dose was continued for from two to four weeks and then gradually decreased, so that the entire treatment usually covered from six weeks to three or four months.

In every case, errors of diet were corrected. Tea, coffee, fresh bread, cake, and fried things were forbidden absolutely. Nothing was allowed between meals excepting milk. No liquids were permitted after supper, and fluid taken with meals was limited to one or two glasses. Cold sponge baths of two minutes duration, followed by rubbing the entire body with a Turkish towel, were ordered daily upon rising. Associated conditions, such as gastroenteritis, nasopharyngeal catarrh, adenitis, otitis, amygdalitis, worms, etc., were given special attention. If analysis of the urine showed superacidity, potassium citrate was given. In boys, the foreskin was stripped back early and adhesions freed, when this was possible; otherwise, circumcision was advised. In every case in which the presence of a vesical calculus was suspected, skiagraphs were made or sounds introduced. No calculus was discovered among the 90 cases.

Dr. Edwin E. Graham, of Philadelphia, said that in the treatment of enuresis, much stress should be laid on the fact that it must be continued for a long time. Many of these patients drifted from one clinic to another, and the treatment was not systematically carried out.

The Bacteriology of Summer Diarrhœa.—By Dr. William H. Park, of New York. The writer stated that the intestines were the only organs of the body which contained large amounts of fermenting and decomposing material. The bacteria contained in the intestinal contents numbered many billions, and far exceeded in number those contained in all the other cavities of the body put together. The bacteria of the intestines were constantly engaged in fermentative and putrefactive processes which exerted a very important influence on the organism of the body. The bacteria of no other body cavity had this function.

The intestines of the new-born were usually free from bacteria, but within a few hours after birth they gained access through the mouth and anus. Within a few weeks, bacilli of the colon group were always present, and usually varieties of streptococci and staphylococci, hay bacilli, and allied groups. The intestinal evacuations of the child contained a daily average of fully one billion of bacteria. The study of intestinal bacteria was very difficult. Excepting the lowest part of the rectum, we could not readily reach the intestinal mucous membrane during life. Furthermore, there was a striking similarity between the bacilli present in the normal intestine and those believed to be pathogenic. The common colon bacillus resembled in morphology, staining, and colony appearance, the various varieties of the colon group, as well as those of the dysentery bacillus, the paracolon group and the typhoid bacillus. The normal streptococcus and staphylococcus resembled those met with in acute disease, and the yeast forms appearing in health resembled the greater number appearing in disease. In hot climates, spirilla were frequently found in the intestines, and resembled very closely pathogenic forms and the true cholera organisms. The difficulties arising from these two facts were still further intensified by the probability that bacteria existing usually in the intestines as harmless refuse fermenters might under changed conditions excite disease.

A Summer's Experience with Infantile Dysentery.—By Dr. J. H. Mason, Jr., of Baltimore. The term dysenteria infantum, or infantile dysentery, was employed to include all cases, mild or severe, of intestinal infection by the *Bacillus dysenteriæ*, of Shiga. During the summer of 1903, 43 cases of diarrhœa in infants and young children, in which the dysentery bacillus was isolated by Bossath from the stools, were treated at the Thomas Wilson Sanitarium for Children, ten miles distant from Baltimore. A study of these cases showed that in their history, clinical manifestations, and pathological findings, they were identical with those observed during epidemics of diarrhœa that had occurred for many years among infants in Baltimore and other American cities, and there was good reason for the belief that the dysentery bacillus was the important factor in this great scourge among children.

The disease usually began in June, reached its height in July, and gradually declined in August, although sporadic cases occurred through the year. The number of cases appeared to be directly increased by the excessive hot weather. Children under one year were most susceptible: those over three years were rarely attacked. Nearly all cases occurred among infants artificially fed. Ill-nourished children, particularly those fed on condensed milk, were less able to withstand the infection of the dysentery bacillus, and formed a large proportion of the fatal cases. The cases could be readily divided into two groups: those in which the symptoms of toxæmia were most prominent, and those in which there was evidence of a destructive lesion of the bowel. Mucus was noticed in the stools in all cases. Blood was present in the discharges in moderate amount in 42 per cent. and pus in 53 per cent. of all cases. Many of the deaths occurred late in the summer, in long-standing cases of ileocolitis, with ulcerated intestines. The keynote of the treatment was promptness. If the food could be stopped and the alimentary tract emptied within a few hours after the onset of the symptoms, most infections could be aborted. The results of the antidysenteric serum treatment were disappointing. Its use was perfectly harmless under aseptic precautions. The prophylactic injections of the serum in susceptible babies might prove an advisable procedure.

The Bacillus Dysenteriæ in Relation to the Diarrhœal Diseases of Infants. A Clinical Study of 237 Cases.—By Dr. L. Emmett Holt, of New York. This paper contained the result of the use of the antidysenteric serum in 83 cases of intestinal infection by the *Bacillus dysenteriæ*, of Shiga, that had been studied under the direction of the Rockefeller Institute in various hospitals in New York, Boston, Philadelphia, and Baltimore. Thirty-eight of these 83 cases resulted fatally. On the whole, the outcome of the serum treatment was disappointing, although no unfavorable symptoms followed its use in any case. In a few instances, an eruption, usually urticaria, followed the injections. That decided improvement appeared to follow its use in only 12 cases was not very encouraging, but several factors worked against its success. In a large proportion of the cases it was used late in the disease. Again, it was, as a rule, only used in the most severe cases; and finally, at the beginning of the season, no rules had been formulated as to the size and frequency of the dose. Hence it was evident that many of the doses were too small. Four patients were moribund at the time the serum was given. Of the 83 cases, 67 were hospital patients. The serum should be used early, before serious lesions had developed, or before the patient's general nutrition had become too profoundly impaired. The latter referred particularly to cases in young infants. Experience had shown that the serum must be used in repeated doses, one or two doses being given each day, and continued for several days if the attack was severe. The promising cases for future trial of the serum were those in which the attack was acute, with symptoms of a severe infection in infants or older children with some powers of resistance. In other words, in all patients where the real problem was to combat the infection and not to maintain the nutrition of the patients, which even before the infection might have been a matter of the greatest difficulty.

Some Findings in Summer Diarrhœas of Children.—By Dr. John J. Cook, of Chicago. The author reported 29 cases of diarrhœa coming under his observation during July and August, 1903. The cases were reported in order to show the relative frequency of certain bacteria not ordinarily given prominence in this connection. Cultures were simultaneously made from the mouth and the fæcal discharges, and observed as closely together as possible. Both in the oral secretions and in the fæces, pyocyaneus and mycoides were found in a number of cases.

The Management of Summer Diarrhœa.—By Dr. Thomas S. Southworth, of New York. After calling attention to the prominent ætiological influence of high atmospheric temperature in the production of summer diarrhœa, the author emphasized the importance of prophylaxis, both dietetic and hygienic, and stated that it should be begun before the onset of the hot weather. The danger was chiefly in proportion to the artificial feeding. The greatest safety was secured by heating milk, however pure. Errors in diet, as well as bad milk, were the exciting causes, but local conditions and lesions, once started, were progressive, and intensified by milk diet. Toxæmia was the prominent factor. The prompt elimination of the milk from the diet, and the evacuation of the bowels vastly reduced the mortality. Opium should be used with great care. True cholera infantum was a rare type.

Dr. J. P. Crozier Griffith, of Philadelphia, thought that the ætiological relationship of the *Bacillus dysenteriæ* to the various forms of diarrhœa had not yet been proved, but this in no way deducted from the value of the investigations, which had not been completed nor gone far enough. The speaker said he was thoroughly in favor of the early withdrawal of the milk in all these cases, and he rather favored the water treatment, as advocated in France. Opium should not be used too early or too late; it required careful consideration in every case to know when to begin its use.

Dr. David E. English, of Millburn, N. J., said he strongly favored the starvation treatment of diarrhœa. He withdrew the milk and substituted a weak solution of barley water, containing a pinch of salt.

Dr. R. B. Gilbert, of Louisville, Ky., said he was opposed to the use of opium in diarrhœa. If an anodyne was needed, he much preferred chloral hydrate. Flushing the colon with a strong saline solution usually relieved the pain and rendered the use of an anodyne unnecessary.

Dr. William L. Stowell, of New York, said that at the Children's Hospital raw milk had been used at times during the past six years with very good success. It was neither sterilized nor Pasteurized, excepting in extremely hot weather.

Landry's Paralysis in Children, With Report of a Case.—This paper was read by Dr. Henry Enos Tuley, of Louisville, Ky.

Letter to the Editor.

THE URINARY EXCRETION OF THE HORSE.

June 22, 1904.

To the Editor,

Sir: Can you refer me, in your columns, to authorities which give the normal amount of urine excreted daily by the average horse? I have sought for the information, but cannot find it.

Reader.

* * * We would suggest that our correspondent consult Smith's *Veterinary Physiology*.—Editor.

Book Notices.

A Manual of General or Experimental Pathology for Students and Practitioners. By Walter Sydney Lazarus-Barlow, B. A., B. C., M. D., F. R. C. P., Director of the Cancer Research Laboratories of the Middlesex Hospital, etc. Philadelphia: P. Blakiston's Sons Co., 1904. Second Edition. Illustrated. Pp. 736. (Price, $6.50.)

The second edition of this most useful and interesting book has been amended and very thoroughly revised. The author desires this work to serve as a complementary volume to his *Textbook on Pathological Anatomy and Histology*, published last year. The entire subject matter has been carefully gone over, and is most admirably presented to the reader. Moreover, it is modern in every respect, and all recent investigations as well as theories are discussed. This, in some respects, is unwise in a manual for students, who are in consequence left to select for themselves the most fascinating theory of an important problem. But as a book for advanced workers or for reference this is a distinct advantage.

A critical review of the book as a whole is hardly necessary, but the chapters on the pathology and sequels of inflammation, the pathology of infection and immunity, and the pathology of nutrition show that the subjects are discussed by one who is a thorough master of the matter in hand. One of the chief features of the book is the graceful style in which the subject is presented, quite different from that so frequently met with in textbooks along these lines. Altogether, this is a work which can be safely recommended as a reliable exposition of our knowledge to-day upon the subject of general and experimental pathology.

A Manual of General Pathology for Students. By Sidney Martin, F. R. S., M. D., F. R. C. P., Professor of Pathology of University College; Physician to University College Hospital, London. Philadelphia: P. Blakiston's Sons Co., 1904. Pp. xvi-502. (Price, $4.00.)

The author's lectures on general pathology at the University College have served as the foundation for this book, which is intended for the use of students only. The author has endeavored to cover the whole ground of general pathology, and while certain topics are well considered, others of equal or more importance are treated of in a very sketchy and most unsatisfactory manner. For instance, the subject of malignant neoplasms is discussed in less than three pages; other new growths are not even mentioned. This subject is part of a chapter on infection, and follows the consideration of pus infection, tuberculosis, intestinal infections, malaria, and the like, and is considered here "in order to contrast and compare their characters with the processes of infection which have been discussed." No distinct contrast is mentioned, but the author does find a resemblance, in the mode of infection, to syphilis and tuberculosis, on account of the formation of metastases by means of the lymphatics and blood vessels and the frequent occurrence of cancer "at places exposed to the influence of agents from outside." Any further points of resemblance are not dwelt upon.

We cannot refrain from quoting in its entirety what is said on the subject of sarcoma: "Sarcoma is, as has been said, of mesoblastic origin. It arises primarily more particularly in the lymphatic glands and in the bones and periosteum, but it may also arise in the organs of the body. Its mode of spread is from gland to gland, or by infiltration. Metastasis occurs by the blood stream and not by the lymphatics, the lungs being commonly affected, as well as other organs." Not a word is said regarding the classification of tumors, and the important theories of Cohnheim, Hausemann, Ribbert, and others on the subject of their pathogenesis are entirely ignored.

Other parts of the book are very satisfactorily written, such, for instance, as the chapters on degenerations and on changes in metabolism. Many important facts are brought out in a manner easy of comprehension and of use to the student. In his preface the author states that illustrations have been included showing the minute changes occurring in diseased processes. We fail to see how this can be effected in such a series of inferior woodcuts as are here introduced. In fact, they are the poorest we have seen in any of the modern works on this or any allied branch of medicine. In a future edition we urge the necessity of a radical change in the matter of illustrations in an otherwise attractive book.

A System of Practical Surgery. By Professor E. von Bergmann, M. D., of Berlin; Professor P. von Bruns, M. D., of Tübingen, and Professor J. von Mikulicz, M. D., of Breslau. Volume I. Translated and Edited by William T. Bull, M. D., and Walter Martin, M. D. Surgery of the Head. New York, and Philadelphia: Lea Brothers & Company, 1904. Pp. 936.

Familiar in the orignal to many American surgeons, this almost encyclopædic system of von Bergmann, von Bruns, and von Mikulicz, needs no introduction here; nor need any apology be made by the translators for reproducing in English (as has already been done in Italian and Spanish) one of the best works on clinical surgery extant.

It will be remembered that a second German edition of the early volumes was undertaken before the later ones appeared. It is the second edition that has formed the basis of this translation. Dr. Bull's editorship of the work bespeaks its character. The splendid articles of von Bergmann, Krönlein, Kümmel, Lexer, Krause, Küttner, Schlatter, and Wiesmann have been admirably reproduced. While the original character of the contributions has been preserved, there has, however, been introduced into them by the translators much important matter that has developed since their second appearance in German; moreover, many references to English and American methods have been added. To that extent, therefore, Dr. Bull and his collaborators have prepared an American edition, although the work is, as they evidently intended it to be, essentially an English translation.

While the system is clinical in character, there are numerous references to pathological and embryological data. It is much to be regretted, however, that there are to be found in the volume hardly any bibliographical references. Most of the illustrations have been reproduced from the German edition, but many have been borrowed from other German and from American sources.

What We Owe to Experiments on Animals. By Stephen Paget. London: The Scientific Press, Ltd., 1904.

This pamphlet is a brief statement of the facts that have been published by the same author at greater length and with more detail in his *Experiments on Animals.* Any one who is sincerely desirous of learning what has been gained by mankind from the painstaking and tedious laboratory work of those engaged in research in physiology, pathology, and practice, by experiments on animals, will find in this pamphlet a brief, systematic, and satisfactory record of results.

The Case Against Antivivisection. By Stephen Paget. London: The Scientific Press, Ltd. (Price, 2 shillings.)

In this pamphlet the author reviews the methods, literature, and arguments of the antivivisection societies, organizations that have been much more successful in hampering scientific research in England than in other parts of the world. It is not only " the long haired man and the short haired woman," who, in this country, constitute the membership of the various " anti " societies; there are many mattoids who closely resemble the normal human being, those on the borderland who are easily influenced for or against because of ineradicable faults in their ratiocinative processes.

We agree with the author " that good has indeed come, and is coming, and so far as we can see will come, out of these experiments; that the instances given are indeed true; that these results were won out of many failures, and contradictions, and fallacies, and harkings back; and that they have stood the test of time, and will underlie all better results, all surer methods that shall take their place." To argue otherwise would be as useful as to discuss the value of religion in social organization.

BOOK AND MAGAZINE NOTES.

Fra Elbertus, the hybrid pseudonym of Mr. Elbert Hubbard, the head and front of the Roycrofters of East Aurora, N. Y., has managed, as it is not hard to believe he wishes, to be one of the most discussed names among modern English writers. We cannot undertake to decide just yet whether he is a heaven sent genius or a " half baked literary fakir," each opinion having many adherents. We are indebted to his publishing house for *Consecrated Lives*, and the July number of The Philistine. The former is a really beautiful piece of bookmaking, both as to typography and binding; a chaste and refined production, unmarred by the occasional vulgarity that defiles the text. The July issue of The Philistine contains *A Little Journey to Tuskegee*, certainly a thoughtful and brilliant essay. Why should the writer undertake to prejudice physicians against it by assuming that the wretched patent medicine advertising quacks are representative members of the medical profession? Is it merely to obtain an advertisement such as this? " Fra Elbertus " must know better, since he states that there is a physician attached to the Roycroft establishment. Let us hope that the latter saw neither manuscript nor proof of his chief's lucubration.

PUBLISHERS' ANNOUNCEMENTS.

The Macmillan Company, New York:

Dr. John W. Streeter, who narrated his farming experiences in *The Fat of the Land*, has tried his hand at fiction. His first novel, a tale of a mountain feud in Kentucky, will be published in the autumn.

The same company will hereafter publish the two volumes, by Dr. William W. Hastings, *Manual of Physical Measurements, Boys,* and *Manual of Physical Measurements, Boys and Girls.* The purpose of these books is to promote a more widespread interest in physical training, and to provide a brief, practical form of measurements.

BOOKS, PAMPHLETS, ETC., RECEIVED.

Annual Report of the Surgeon-General of the Public Health and Marine Hospital Service of the United States. For the Fiscal Year 1903. Washington: Government Printing Office, 1904.

The Rocky Mountain Interstate Medical Association. Transactions of the Fifth Annual Meeting, Salt Lake City, Utah. September 1 and 2, 1903.

Preliminary Bulletin on Insects of the Cacao. Biological Laboratory, Entomological Division, Bulletin No. 1. Prepared especially for the benefit of farmers. 1903. No. 11. Department of the Interior Bureau of Government Laboratories. By Charles S. Banks, Entomologist, Bureau Government Laboratories. Manila: Bureau of Public Printing, 1904.

Die Tuberkulose als Volkskrankheit und ihre Bekämpfung durch Verhütungsmassnahmen. Ein Mahnruf an das deutsche Volk. Von Dr. Max Salomon, Sanitätsrat in Berlin. Von der Berliner " Hufelandischen Gesellschaft " preisgekrönte Schrift. Berlin: S. Karger, 1904.

Beiträge zur Klinik der Tuberkulose. Unter Mitwirkung der Herren Dozent Dr. Arnsperger, Professor Dr. Bettmann, Hofrat Professor Dr. Fleiner, Dozent Dr. Gaupp, Professor Dr. Hammer, Dozent Dr. Hegener, Professor Dr. V. Hippel, Dozent Dr. Jacoby, Professor Dr. Jordan, Professor Dr. Jurasz, Professor Dr. Magnus, Dozent Dr. Marschall, Dozent Dr. Nehrkorn, Professor Dr. Petersen, Professor Dr. Schottlander, Professor Dr. Schwalbe, Dozent Dr. Simon, Dozent Dr. Soetbeer, Professor Dr. Starck, Dozent Dr. Volker, Professor Dr. Vulpius. Herausgegeben von Dr. Ludolph Brauer, Professor an der Universität Heidelberg. Band II. Heft 3: Vargas-Suarez, Dr. J., Ueber Ursprung und Bedeutung der in Pleura-Ergüssen vorkommenden Zellen. Mit 1 Tafel. Koppen, Dr. A., Ueber die probatorische Tuberkulininjektion. Kohler, Dr. F., Zur Tuberkulindiagnostik nebst Bemerkungen zu Schules Aufsatz, " über die probatorische Tuberkulininjektion." Servaes, Dr. C., Bemerkungen über die Gefährlichkeit der probatorischen Tuberkulinimpfung. Schule, Professor Dr., Entgegnung auf vorstehende Abhandlungen. Würzburg: A. Stuber, 1904. [Preis, M. 2.50.]

Die Radiologie als selbständiger Zweig der medizinischen Wissenschaft. Zweites Promemoria zu den Gesuchen des Dr. Robert Kienbock und Dr. Guido Holzknecht um Zulassung zur Privatdozentur über Radiologie an der Wiener medizinischen Fakultät. Im Selbstverlage der Verfasser als Manuskript gedruckt. Wien: Johann N. Vernay, 1903.

Ueber Projektil-Extraktionen aus dem Gehirn während der Röntgen-Durchleuchtung. Experimentelle Studie von Dr. Guido Holzknecht und Dr. Paul Domeny, Sekundärärzten des K.K. Allgemeinen Krankenhausen in Wien. Mit 9 Figuren im Texte und 2 Tafeln. Wien und Leipzig. Wilhelm Braumuller. Aus dem Laboratorium fur Röntgenverfahren des K.K. Allgemeinen Krankenhauses in Wien.

Guide pratique et formulaire, pour les maladies de la Bouche et des Dents. Suivi du Manuel Opératoire de l'anesthésie par la cocaine en chirurgie dentaire, par G.

VIAU, Chirurgien-dentiste de la Faculté de médecine de Paris, Professeur a l'Ecole dentaire de Paris; Président de la Société d'odontologie, 1893 et 1894: Président de l'Association générale des dentistes de France, 1900; Vice-M. D., of Tübingen; and Professor J. VON MIKULICZ, Edition. Paris: F. R. de Rudeval, 1904. Un volume in 18 de VII, 522 pages. [Cartonné, 6 francs.]

Orthmann's Handbook of Gynæcological Pathology, for Practitioners and Students. Translated by C. HUBERT ROBERTS, M. D., Lond., F. R. C. S., Eng., M. R. C. P., Physician to the Samaritan Hospital, London, etc.; assisted by MAXIMILIAN L. TRECHMANN, F. R. C. S., Eng., M. B., C. M., Edin. London: John Bale, Sons, and Danielsson, Ltd., 1904. [Price, Five Shillings net.]

Applied Materia Medica. A Textbook Intended for the Use of Nurses in Hospital Training Schools. By J. HENRY SCHROEDER, Ph. G., M. D., Formerly Lecturer on Materia Medica in the Jewish Hospital Training School for Nurses, Cincinnati. Cincinnati: The Robert Clarke Company, 1904. [Price, $1.25 net.]

The Mothers' Manual. A Month by Month Guide for Young Mothers. By EMELYN LINCOLN COOLIDGE, M. D., Visiting Physician of the Outpatient Department of the Babies' Hospital, New York; formerly House Physician of the Babies' Hospital, New York, etc. Illustrated. New York: A. S. Barnes & Co., 1904.

Die Therapie der Magen-, Darm- und Konstitutions-Krankheiten. Ein Leitfaden für Studierende und Aertze. Von Dr. GASTON GRAUL, Ehemaliger Assistent des Herrn Geheimrates v. Leube, Besitzer und Leiter einer Privatklinik für Verdauungs-und Stoffwechsel-Krankheiten in Bad Neuenahr. Würzburg: A. Stuber (C. Kabitzsch), 1904. [Preis, M. 3.60.]

The Occurrence of Aluminum in Vegetable Products, Animal Products, and Natural Waters. A Contribution to the Bibliography of the Subject. By C. F. LANGWORTHY, Ph. D., and PETER T. AUSTEN, Ph. D. New York: John Wiley & Sons. London: Chapman & Hall, Limited, 1904. [Price, Cloth, $2.00 net.]

Miscellany.

The Kings County Insane Asylum at Kings Park, situated on the northern shore of Long Island, forty-five miles from New York, was established in 1886 by the County of Kings for the chronic insane, and was administered as a branch of the Kings County Insane Asylum at Flatbush. On October 1, 1895, the plant was turned over to the State of New York, and since then vast improvements have been made in the property. Dr. O. M. Dewing came to this place under Kings County in 1889, remained through the county administration, was appointed medical superintendent by the State authorities when the institution became a State hospital, and has up to the present time remained there as medical superintendent.

This hospital is the second largest hospital for the insane in the world. The population now consists of some 2,800 patients and over 500 employees. There is a staff of fourteen physicians, besides the superintendent, a matron, and a resident steward. The annual *per capita* cost of maintenance for patients is about $185. This includes absolutely everything—officers' salaries, employees' wages, provisions and general stores, all repairs, cost of running the farm and caring for the grounds, cost of clothing, bedding, renewals of furniture, books and stationery, fuel and light, drugs and medical appliances, and miscellaneous expenses.

The nurses and attendants are classified and receive wages as follows:

	Per month	
	Men	Women.
1. Charge nurses	$34-39	$29-34
2. Nurses	31-36	26-31
3. Charge attendants	30-35	25-30
4. Attendants	22-26	16-20
5. Special attendants	35-40	30-35
6. Dining room attendants	16-20	16-20

There is a training school for nurses, the course being two years, and the instruction both didactic and practical; the didactic instruction is effected by lectures and quizzes by physicians and by the study of textbooks, and the practical instruction is received at the hands of the matron of the hospital, who is an accomplished trained nurse, and by her various assistants; also by the dietician, in invalid cookery. After graduation from the two years' course of training, attendants are styled nurses and receive additional pay. Attendants during this course are allowed to go out nursing private cases, on leave of absence without pay, and they are allowed to retain the pay received as a result of their private employment. The members of this training school receive careful instruction in massage, hydrotherapy, surgical technics, and the various matters in regard to which a trained nurse should be well informed and expert.

In the treatment of acute cases at this hospital much attention is given to hydrotherapy and to special and, in some cases, forced alimentation. Much work is done in the examination of stomach contents and the use of other clinical laboratory methods, and treatment and diet are based thereupon.

Classification of cases is thoroughly carried out, the acute insane being separated from the chronic insane in two acute services, one for men and the other for women. Tuberculous patients are isolated, and have been isolated, since the year 1893, in two cottages, one for men and the other for women.

Cases are studied in accordance with the methods of Kraepelin and Wernicke. The classification used is generally that of Kraepelin.

The recovery rate averages over 30 per cent. of the admissions. Last year this recovery rate was 32 per cent.

There is a complete surgical operating room, and major operations are performed every two weeks, members of the medical profession being invited to attend.

Mechanical restraint is rarely used. It is occasionally used where it seems more humane than to employ the services of several attendants constantly for the restraint of violent subjects, and to prevent self injury. What is known as the restraining sheet is practically the only form of restraint used.

The ration table for the entire hospital, including officers, employees, and patients, is as follows *per diem* and *per capita:*

Article.	Allowed.	
Meat and fish	10.5	ozs.
Farinaceous food	13.	ozs.
Butter	1 5	ozs.
Cheese	.3	oz.
Coffee	.465	oz.
Eggs	.55	oz.
Fruit, dried	.5	oz.

Milk	1.1	pt.
Potatoes	10.	ozs.
Sugar	2.	ozs.
Tea	.1175	oz..
Vegetables, canned	2.	ozs.
Vegetables, fresh	4.	ozs.

Medical staff meetings are held twice a week, at which cases are presented and analyzed by members of the staff.

Tuberculous cases, isolated as above stated, receive careful treatment along the hygienic lines now generally pursued in the sanitariums for tuberculosis—that is to say, a life out of doors, special attention to feeding, and hydrotherapy.

The considerable number of epileptics have been placed upon varied diets with a view to determine their efficacy in the treatment of epilepsy, but although interesting results have been obtained, it is not considered desirable to make any report at this time.

Dr. Dewing has recently been transferred from this hospital to the Long Island State Hospital at Flatbush, Brooklyn, which was the parent institution. The hospital at Flatbush is now held by the State on a lease from the city, which will expire September 30, 1905. It is desired by the medical profession in Brooklyn and the friends of the insane and the State authorities that a release be obtained of this property for a long term, so that a hospital for the insane within the Borough of Brooklyn may be maintained for the very acute, the very feeble, and the very violent cases, for which a journey of forty-five miles to Kings Park is a distinct detriment at the time of their commitment. If the re-lease referred to is obtained, it is understood that it will be the policy of the State to erect a psychopathic hospital in connection with the Flatbush property, for the reception and treatment of incipient cases of mental disease. If this re-lease of the property at Flatbush to the State for a long term can be brought about, it will be the policy of Dr. Dewing, as superintendent of that institution, to conduct it on lines similar to those pursued at Kings Park and to make the Flatbush Hospital, not only a model hospital for the care and treatment of the insane, but of much value to the medical profession in Brooklyn in connection with the study of mental disease, bringing it into close touch with the medical profession.

Work for Physicians on the Panama Canal.—Colonel William C. Gorgas, Medical Department, U. S. A., who sailed for Colon June 21st, to establish sanitary bases along the route of the projected waterway, estimates, according to the *Army and Navy Journal* for June 25th, that at least three hundred physicians will be required on the isthmus while construction work is in progress. These physicians, of course, will be taken from civil life, preference being given to young, active men who have had hospital experience, but it is probable that the general work of supervision will be placed in the hands of experienced surgeons from the medical corps of the army. The health problems involved in the canal project are so numerous and so important that the work of the sanitary corps under the direction of Colonel Gorgas will be observed with world wide interest. To establish sanitary conditions on the isthmus under which an army of 50,000 laborers, most of them foreigners, can carry on the work of construction without a wasteful mortality rate is an undertaking that will tax sanitary science as heavily as the constructive problems will tax engineering science. The task of Colonel Gorgas is not primarily to cure disease, but to prevent it, and so thoroughly to overcome the baleful climatic conditions on the isthmus that the canal zone will become a safe place of permanent residence for persons from more temperate latitudes. It is evident, therefore, that the sanitary corps organized by Colonel Gorgas may serve as an excellent training school for a considerable number of ambitious young physicians desirous of qualifying themselves for commissions as surgeons in the army and navy. They will be brought into contact there with some of the most important conditions that confront medical officers serving with troops in the field.

Official News.

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending July 9, 1904:

Bratton, Thomas S., Captain and Assistant Surgeon. Reports in charge of the chief surgeon's office, Department of Texas.

Brooks, William H., First Lieutenant and Assistant Surgeon. Reported for duty at Fort Washington, Md.

Ebert, R. C., Major and Surgeon. Ordered to proceed to American Lake, Murray, Washington, for duty in connection with Department manœuvres.

Edie, Guy L., Major and Surgeon. Relieved from duty in charge of the sanitary and disbursing division of the office of the Surgeon General of the Army and as disbursing officer of the Medical Department and assigned to duty as attending surgeon in Washington, D. C.

Girard, J. B., Colonel and Assistant Surgeon General. Reports being relieved from duty as chief surgeon of the Department of Texas.

Grubbs, R. B., First Lieutenant and Assistant Surgeon. Reports departure from Fort Wright, Wash., *en route* to American Lake, Wash., for duty during manœuvres.

Henderson, A. B., First Lieutenant and Assistant Surgeon. Having been found by an army retiring board incapacitated for active service, his retirement from active service is announced.

Howard, D. C., Captain and Assistant Surgeon. Granted thirty days' leave of absence, to take effect upon the return of Major Borden from leave.

Kulp, John S., Captain and Assistant Surgeon. Left Fort McDowell, Cal., with Company of Instruction No. 2, Hospital Corps, *en route* to Murray, American Lake, Wash., for duty during manœuvres.

Lyster, Theodore C., First Lieutenant and Assistant Surgeon. Relieved from further duty at the Military Academy, West Point, N. Y., and ordered to report to Rear Admiral John G. Walker, United States Navy, Chairman of the Isthmian Canal Commission in Washington, D. C., for duty pertaining to the maritime quarantine of Panama and Colon.

Lyster, William J. L., First Lieutenant and Assistant Surgeon. Left Fort McDowell, Cal., *en route* to Murray, American Lake, Wash., for duty during manœuvres.

Owen, William O., Major and Surgeon. Sick leave extended one month.

Reynolds, Charles R., First Lieutenant and Assistant Surgeon. Reported for duty at the United States Army General Hospital Washington Barracks, D. C., and assigned to duty in command of Company No. 1, Hospital Corps, Company of Instruction.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the week ending July 8, 1904:

Smallpox—United States.

Place.	Date.	Cases.	Deaths.
Delaware—Wilmington	June 25-July 2	1	
Dist. Columbia—Washington	June 18-25		3
Florida—At large	June 18-25	14	
Georgia—Macon	June 25-July 2	1	
Illinois—Belleville	June 1-30	7	
Illinois—Chicago	June 25-July 2	1	
Illinois—Danville	June 25-July 2	1	
Kentucky—Covington	June 25-July 2	1	
Louisiana—New Orleans	June 25-July 2	5	
Maine—Madawaska region	June 18-25	18	
Michigan—Detroit	June 14-21	2	
Michigan—At 88 localities	June 18-25	Present.	
Missouri—St. Louis	June 25-July 2	2	
Nebraska—Omaha	June 25-July 2	4	
New Hampshire—Manchester	June 25-July 2	1	
New York—New York	June 25-July 2	1	1
Ohio—Dayton	June 18-July 2	3	2
Pennsylvania—Altoona	June 25-July 2	1	
Pennsylvania—Philadelphia	June 25-July 2	2	1
Pennsylvania—Steelton	June 25-July 2	1	
Tennessee—Memphis	June 25-July 2	4	
Tennessee—Nashville	June 25-July 2	1	

Smallpox—Foreign.

Place.	Date.	Cases.	Deaths.
Austria—Prague	June 11-18	9	
France—Paris	June 11-18	12	1
Great Britain—Bradford	June 4-18	15	2
Great Britain—Bristol	June 11-25	6	
Great Britain—Cardiff	June 4-11	1	
Great Britain—Edinburgh	June 4-11	2	
Great Britain—Glasgow	June 17-24	31	3
Great Britain—Liverpool	June 11-18	1	
Great Britain—London	June 11-18	7	
Great Britain—Manchester	June 4-18	12	1
Gt. Britain—Newcastle-on-Tyne	June 11-18	5	
Great Britain—South Shields	June 11-18	1	
India—Bombay	May 31-June 7		12
India—Calcutta	May 28-June 4		2
India—Karachi	May 29-June 5	1	
Panama—Panama	June 12-19	1	1
Russia—Moscow	June 4-11	12	8
Russia—St. Petersburg	June 4-18	24	7
Russia—Warsaw	May 14-21		21
Russia—Warsaw	May 28-June 4		24
Spain—Barcelona	May 20-June 20		27
Turkey—Alexandretta	June 4-11		2
Turkey—Beirut	May 28-June 4	Present.	
Turkey—Constantinople	June 12-19		7

Yellow Fever.

Place.	Date.	Cases.	Deaths.
Ecuador—Guayaquil	May 25-June 8		15
Mexico—Merida	June 12-18	7	1
Mexico—Vera Cruz	June 18-25	2	1
Panama—Panama	June 12-19		1

Plague.

Place.	Date.	Cases.	Deaths.
Africa—Johannesburg	April 11-May 7	2	3
Australia—Brisbane	May 3-21	7	2
Australia—Sydney	May 14-21	1	
Egypt*	May 21-28	20	10
India—Bombay	May 31-June 7		78
India—Calcutta	May 28-June 4		70
India—Karachi	May 29-June 5	30	30
Peru—Payta	May 29-June 4	11	7

Cholera.

Place.	Date.	Cases.	Deaths.
India—Calcutta	May 28-June 4		24
India—Madras	May 28-June 3		2
Turkey—Bahrein Islands	May 10	Epidemic.	

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* Including Alexandria 1 case, 1 death: Port Said, 1 case, 1 death.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending July 9, 1904:

ASSERSON, F. A., Assistant Surgeon. Detached from the *Kentucky* and ordered to the Navy Yard, New York, N. Y.

FARWELL, W. G., Assistant Surgeon. Commissioned assistant surgeon, with rank of lieutenant, junior grade, from June 28, 1904.

GRAYSON, C. T., Assistant Surgeon. Commissioned assistant surgeon, with rank of lieutenant, junior grade, from June 28, 1904.

LANGHORNE, C. D, Surgeon. Commissioned surgeon, with rank of lieutenant-commander, from June 9, 1903.

MCLEAN, N. T., Assistant Surgeon. Commissioned assistant surgeon, with rank of lieutenant, junior grade, from June 28, 1904.

MILLER, J., JR., Assistant Surgeon. Orders to the *Kentucky* revoked; detached from the *Denver* and ordered to duty with the marine battalion on the Isthmus of Panama.

PRYOR, J. C., Surgeon. Commissioned surgeon, with rank of lieutenant-commander, from March 3, 1903.

Births, Marriages, and Deaths.

Married.

AXFORD—HOUSEHOLDER.—In Philadelphia, Pennsylvania, on Tuesday, July 5th, Dr. Walter James Axford and Miss Ethel Householder.

CASEY—GILLIS.—In Brooklyn, N. Y., on Monday, June 27th, Dr. Herbert W. Casey and Miss Roberta S. Gillis.

CLAYTOR—NIERNSEE.—In Washington, D. C., on Thursday, June 30th, Dr. Thomas Ash Claytor and Miss Helen Niernsee.

DE BELL—BEACH.—In Richmond, Virginia, on Wednesday, June 29th, Dr. Arthur Wise de Bell and Miss Elizabeth Fairfax Beach.

FULLER—SMITH.—In Chicago, Illinois, on Wednesday, June 22nd, Dr. Spencer S. Fuller and Miss Marguerite Linton Smith.

MACLENNAN—GRUVER.—In Buena Vista, Colorado, on Tuesday, June 28th, Dr. A. A. MacLennan and Miss Ethel Gruver.

MCGLAUGHLIN—DOYLE.—In Detroit, Michigan, on Wednesday, June 29th, Dr. James Stafford McGlaughlin and Miss Catherine Doyle.

NEWHALL—MILLER.—In Philadelphia, Pennsylvania, on Thursday, June 30th, Dr. Avery Lester Newhall and Miss R. Ava Miller.

PRICE—O'HARA.—In Cincinnati, Ohio, on Thursday, June 30th, Dr. J. L. Price and Miss Mattie O'Hara.

ROYS—MILHAM.—In St. Paul, Minnesota, on Tuesday, June 28th, Dr. Charles Kirkland Roys and Miss Mabel Milham.

SNODDY—HAYES.—In Vallejo, California, on Wednesday, June 29th, Dr. Cary A. Snoddy, U. S. A., and Miss Mary Hayes.

WALL—BABLER.—In Eldorado Springs, Missouri, on Wednesday, June 29th, Dr. O. A. Wall and Miss Emma Elizabeth Babler.

Died.

ABBOTT.—In Boston, Massachusetts, on Friday, July 1st, Dr. Samuel L. Abbott, in the eighty-seventh year of his age.

BURR.—In Milford, Massachusetts, on Saturday, July 2nd, Dr. Rollin H. Burr, in the twenty-ninth year of his age.

FIDELMAN.—In New York, on Thursday, July 7th, Dr. Julia Fidelman, in the thirty-first year of her age.

FLOTO.—In Oakland, California, on Wednesday, June 29th, Dr. John Henry Floto, in the one hundredth year of his age.

PATRIDGE.—In Bennington, Vermont, on Wednesday, June 29th, Dr. Mary Patridge.

PILCHER.—In Norwood, Georgia, on Thursday, June 30th, Dr. W. H. Pilcher, in the seventy-sixth year of his age.

STEEL.—In Richmond, Virginia, on Sunday, June 26th, Dr. Charles L. Steel, in the forty-fifth year of his age.

TRINKLE.—In Philadelphia, Pennsylvania, on Friday, July 1st, Dr. Samuel M. Trinkle, in the sixty-fourth year of his age.

WALKE.—In Norfolk, Virginia, on Tuesday, July 5th, Dr. Frank A. Walke, in the seventy-fourth year of his age.

WARD.—In Utica, N. Y., on Sunday, July 3rd, Dr. Charles G. Ward, in the fiftieth year of his age.

WELLS.—In Tiffin, Ohio, on Friday, June 24th Dr. Henry C. Wells, in the sixty-first year of his age,

WHITCOMB.—In Warren, Pennsylvania, on Wednesday, June 29th, Dr. Frank W. Whitcomb, in the forty-sixth year of his age.

WILLIAMS.—In Baltimore, Maryland, on Tuesday, July 5th, Dr. Elijah Williams, in the fifty-fifth year of his age.

New York Medical Journal
AND
Philadelphia Medical Journal.
CONSOLIDATED.

A Weekly Review of Medicine

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Lectures and Addresses.

REPORT ON THE CURRICULA OF AMERICAN MEDICAL COLLEGES.*

By GEORGE W. WEBSTER, M. D.,

CHICAGO,

PRESIDENT OF THE ILLINOIS STATE BOARD OF HEALTH; CHAIRMAN OF THE COMMITTEE OF CURRICULUM AND PRELIMINARY REQUIREMENTS, AND FIRST VICE-PRESIDENT NATIONAL CONFEDERATION STATE MEDICAL EXAMINING AND LICENSING BOARDS.

Mr. President, and Members of the Confederation:

At the annual meeting of this confederation two years ago, a committee on curriculum was appointed in accordance with the recommendation of the president, Dr. R. N. Coleman, in his presidential address. I had the honor of being appointed chairman of the committee, and of reporting to you last year at the annual meeting at New Orleans on the work of 43 of the medical colleges of the United States.

That report showed the number of hours of work done by each student in each subject of the curriculum in each of the colleges enumerated, and the work was divided into clinics, lectures, recitations, and laboratory work.

It was shown that there was a lamentable want of uniformity in regard to the length and character of the medical course in the various medical colleges; and that there were striking variations in regard to every subject in the curriculum. It was shown that the average time devoted to each subject in the 43 reported colleges was as follows:

Average Course.

Average total hours in 43 colleges in four-year course	4,095
Average total hours in 43 colleges in:	
First year	973
Second year	1,039
Third year	1,040
Fourth year	1,090

Average hours devoted in 43 colleges to the following subjects:

Chemistry	375
Anatomy	549
Histology and embryology	219
Physiology	276
Pharmacology and therapeutics	118
Physical diagnosis	61
Surgery	596
Bacteriology	131
Ætiology and hygiene	33
Pathology	295
Medicine	544
Obstetrics	177
Dermatology and syphilology	64
Laryngology and rhinology	67
Pædiatrics	72
Ophthalmology and otology	106
Gynæcology	145
Neurology	82
Mental diseases and jurisprudence	27

As the result of that report, the following standard was adopted unanimously by the confederation:

1. The standard curriculum, which is to be adopted as a minimum requirement for the degree of M. D., shall consist of at least the following:

a. The course shall consist of four terms in four separate calendar years.
b. Each term shall consist of thirty weeks of work, exclusive of holidays, and of at least thirty hours in each week, or 900 hours of actual work.
c. The entire course of four years shall consist of not less than 3,600 hours of actual work.
d. This should be a standard of *required* work. Any *elective* work should be *in addition* to the above.
e. The average time devoted to each study in the curriculum should be approximately that in column 2.
f. Clinical work should constitute at least one fourth of the work of the entire course.

Average Course.

	1 Average.	Adopted. Standard.
Average total hours in 43 colleges in four-year course	4,095	3,600
Average total hours in 43 colleges in:		
First year	973	900
Second year	1,039	900
Third year	1,040	900
Fourth year	1,090	900

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* Submitted at the annual meeting of the National Confederation of State Medical Examining and Licensing Boards, at Atlantic City, N. J., June, 1904.

Average hours in 43 colleges devoted to the following subjects:

Chemistry	375	340
Anatomy	549	500
Histology and embryology	219	200
Physiology	276	250
Pharmacology and therapeutics	118	110
Physical diagnosis	61	55
Surgery	596	540
Bacteriology	131	115
Ætiology and hygiene	33	30
Pathology	295	260
Medicine	544	500
Obstetrics	177	150
Dermatology and syphilology	64	50
Laryngology and rhinology	67	55
Pædiatrics	72	60
Ophthalmology and otology	106	95
Gynæcology	145	130
Neurology	82	75
Mental diseases and jurisprudence	27	25

As the adoption of this standard was almost revolutionary, in that it defined a medical course in terms of hours of work and assigned a definite number of hours to each subject in the curriculum, thus establishing the relative time importance of each subject, and stated the minimum number of hours in each college term or year and in the four-year course, it was thought wise to continue the work and to determine as far as possible exactly how much work was being done in as many colleges as possible. I was directed to continue this work. I have the honor to report as follows:

In February, 1904, I sent to 157 medical colleges in the United States a circular letter, setting forth the desires of the committee and the objects of the work, urging cooperation, and promising copies of the report to all who cooperated in its preparation.

I enclosed a blank form containing a list of the subjects in the curriculum, 23 in number, this year dividing the work into clinics, lectures and recitations, and laboratory work. On the last page of the blank form was the following:

> The foregoing is a correct statement of the number of hours of actual work done by each student in the several branches of the curriculum in the ——— medical college for the session 1903-04.

This was signed in every case by the secretary, dean, or registrar of the college making the return. An addressed, stamped, return envelope was enclosed for reply. Nearly half of the colleges replied to this letter within three weeks. At the end of that time, a second letter was sent out bearing date March 15, 1904, reminding them of the former letter and that it remained unanswered. I enclosed a duplicate blank form and an addressed, stamped, envelope for reply. This brought about thirty replies within a month. To the remaining colleges a third appeal was sent out, informing them that they were among the few that had failed to give even the courtesy of a reply or a refusal to cooperate with us. As a result of these three appeals, in which over 300 letters were sent out, I am able to present you with the first authentic, comprehensive account of the work done in 124 colleges in the United States.

It is a great pleasure to report that the majority of the officers of the schools reported promptly and courteously and had many words of encouragement, and I herewith wish gratefully to acknowledge both. Others, only a few, absolutely refused to furnish any information, saying they were "engaged in more important work," etc. Others sent either a schedule of lectures or an announcement, neither of which was available for the purpose, and others did not give me even the courtesy of a reply to any of my three communications. As none were returned to me by the post office department, I assume that they were delivered. This work, including the making of a correct mailing list and then tabulating the returns from the college, has required the constant work of a competent stenographer for three months and a half, in addition to the work done by myself.

In all the reports the statistics seem reasonable and trustworthy, with the possible exception of the Atlanta College of Physicians and Surgeons, which reports the total hours in its four-year course, as over 10,000. As they have a six months' school, this would require each student to do about sixteen hours a day.

The results shown in the following tables are interesting, important, and startling.

They show a woeful lack of uniformity in regard to the relative importance of each study, as measured by the time devoted to it by the several colleges of this country, and demonstrate the need of this kind of investigation, and constitute a strong argument in favor of revising and standardizing the medical curriculum.

Many subjects rightly regarded as important by the majority of the schools are wholly ignored by some and given scant attention by others.

Some of the specialties are given an undue prominence and an unmerited allowance of time in some of the schools; for example, 780 hours to orthopædic surgery by the University of Nebraska; 570 hours to gynæcology by the Medical College of Ohio; 330 hours to ætiology and hygiene by the College of Physicians and Surgeons, Chicago; and 448 hours to dermatology and syphilis by Barnes Medical College, in St. Louis.

	Number of years in course.	Number of months in term.	General medicine.	General surgery.	Orthopædic surgery.	Obstetrics.	Pathology.	Anatomy.	Histology and embryology.	Physiology.	Chemistry.	Bacteriology.	Pædiatrics.	Physical diagnosis.	Gynæcology.	Ætiology and hygiene.	Neurology.	Mental diseases.	Materia medica and therapeutics.	Pharmacology.	Dermatology and syphilis.	Laryngology and rhinology.	Ophthalmology and otology.	Medical jurisprudence.	Genitourinary.	Total number hours in four-year course.
ALABAMA.																										
Birmingham Medical College	4	6	After three requests received no response.																							
Medical College of Alabama	4	6	After three requests received no response.																							
ARKANSAS.																										
Arkansas University Medical Dep't	4	6	After three requests received no response.																							
CALIFORNIA.																										
Univ. of So. California Coll. of Med.	4	8	353	460	60	150	350	338	180	409	325	50	88	90	118	15	90	90	210	60	88	98	88	15	148	3.873
Coll. of Phy. and Sur. of San Francisco	4	9	726	648	...	174	432	540	216	360	360	72	72	108	360	36	36	36	252	...	36	216	216	36	72	5,004
Cooper Medical College	4	8	609	622	...	164	333	802	301	381	372	85	109	62	134	31	57	31	124	62	31	...	142	31	109	4,592
Oakland Coll. of Medicine and Surgery	4	8	...	...	...	...	180	870	120	270	220	80	...	20	...	...	...	...	360	...	...	...	...	...	...	2,120
Univ. of California Medical Dep't	4	9	594	738	36	120	504	1,056	406	...	207	180	72	...	144	...	72	...	36	...	72	72	72	...	72	4,453
College of Medicine	..	..	After three requests received no response.																							
Hahnemann Coll. of the Pacific	4	7	After three requests received no response.																							
California Medical College	4	8	510	450	60	120	240	480	420	300	480	180	60	120	120	120	60	60	300	120	120	120	180	60	60	4,740
COLORADO.																										
Colorado School of Med. Univ. of Colo.	4	6	354	432	...	144	260	786	292	380	260	255	216	348	144	36	216	108	180	72	108	144	180	18	...	4,933
Denver and Gross Coll. of Medicine	4	8	300	420	60	120	210	240	180	300	360	120	30	30	405	15	210	210	60	120	90	60	285	30	60	3,915
Denver Homœopathic College	4	6	Refused to fill out blank form.																							
CONNECTICUT.																										
Yale Medical School	4	8	436	368	96	82	216	504	168	248	448	96	48	32	60	12	44	22	102	140	59	48	60	20	12	3,314
DISTRICT OF COLUMBIA.																										
Georgetown Univ. School of Medicine	4	7½	424	374	48	200	424	560	225	234	366	150	60	72	168	68	72	72	170	108	40	48	48	34	30	3,995
Howard University	..	..	660	360	26	156	104	632	182	364	312	104	52	52	156	26	26	...	374	...	44	...	102	13	44	3,789
Columbian Univ. Dep't of Medicine	4	..	241	826	86	232	156	871	56	412	324	243	66	32	100	8	96	16	271	88	35	35	144	10	96	4,444
GEORGIA.																										
Atlanta Coll. of Phy. and Surgeons	4	6	1,900	2,221	75	350	500	1,375	300	750	225	200	78	475	350	50	200	100	275	60	125	450	...	10	175	10,244
Georgia Coll. of Eclectic Med. and Sur.	..	..	288	460	...	224	72	384	96	192	240	66	48	48	48	48	48	...	192	48	96	96	96	40	48	2,878
Medical College of Georgia	4	6	288	432	24	72	144	480	96	192	192	192	72	96	144	48	24	...	144	...	48	144	144	48	72	3,096
ILLINOIS.																										
American Medical Missionary College	4	7½	415	360	75	175	285	650	245	355	495	270	105	75	225	...	190	90	140	330	...	75	140	20	125	4,840
American Coll. of Med. and Sur.	4	..	448	704	192	288	256	896	352	352	544	124	192	256	256	64	96	96	320	64	128	128	128	64	96	6,044
Bennett Coll. of Eclectic Med. and Sur.	4	8	After three requests received no response.																							
Chicago Homœopathic Med. College	4	7	504	660	...	160	336	574	128	256	372	160	88	32	224	32	132	...	336	32	136	76	96	16	...	4,350
College of Med. and Sur.	4	7	460	446	256	176	394	656	384	288	412	184	128	192	192	76	192	64	264	72	128	64	64	64	128	5.284
College of Phy. and Sur.	4	7	600	720	60	120	270	570	395	270	420	...	75	105	240	330	150	45	165	120	90	60	90	90	30	5.015
Dearborn Medical College	4	10	520	627	40	100	105	530	105	175	330	70	80	120	80	40	40	40	185	105	80	40	40	12	40	3,504
Hering Medical College	4	7	1,268	364	208	104	156	494	130	182	416	156	208	156	234	26	312	26	832	26	156	52	104	26	78	5,714
Hahnemann Med. Coll. and Hospital	4	7	570	540	...	150	150	435	330	120	390	135	108	105	279	30	30	15	453	30	108	117	153	15	30	4,293
Harvey Medical College	4	9	After three requests received no response.																							
Illinois Medical College	4	6	700	1,148	96	126	280	1,149	280	224	308	140	392	56	224	28	252	56	308	224	56	224	56	12	48	6,387
Jenner Medical College	4	..	417	459	42	126	100	566	114	280	342	40	40	84	100	42	...	114	252	70	84	42	80	30	84	3,508
National Med. University and Hospital	4	9	475	275	...	200	200	500	175	200	350	100	...	175	100	...	...	...	450	25	...	...	75	775	...	4,075
Northwestern University Med. School	4	8	560	816	72	160	336	828	232	216	456	192	96	112	256	32	108	16	...	232	112	96	120	16	80	5,144
Rush Medical College	4	8	612	672	...	168	360	582	236	456	...	150	96	72	204	36	144	48	144	150	156	144	156	24	...	4,610
INDIANA.																										
Central Coll. of Phy. and Surgeons	4	7	667	846	29	174	386	754	203	232	261	116	87	87	87	29	58	58	203	29	87	116	116	15	87	4,727
Eclectic Med. Coll. of Indiana	4	6½	After three requests received no response.																							
Ft. Wayne College of Medicine	4	7	350	350	26	150	300	450	150	275	312	352	26	104	100	52	26	52	170	...	27	27	52	25	76	3,452
Medical College of Indiana	4	6	532	656	...	112	308	796	168	224	280	168	112	84	196	28	112	112	280	56	140	56	112	14	112	4,658
Physio-Medical College of Indiana	4	7	240	180	34	148	240	240	350	296	240	184	124	124	124	68	64	184	184	68	68	40	40	68	68	3,490

	Number of years in course.	No. of months in term.	General medicine	General surgery.	Orthopædic surgery.	Obstetrics.	Pathology.	Anatomy.	Histology and embryology.	Physiology.	Chemistry.	Bacteriology.	Pædiatrics.	Physical diagnosis.	Gynæcology.	Ætiology and hygiene.	Neurology.	Mental diseases.	Materia medica and therapeutics.	Pharmacology.	Dermatology and syphilis.	Laryngology and rhinology.	Ophthalmology and otology.	Medical jurisprudence.	Genitourinary.	Total number hours in four-year course.
IOWA.																										
Coll. of Homœo. Med. Univ. of Iowa...	4	9	1,008	754	144	432	288	198	108	324	720	216	72	324	216	18	180	180	648	36	144	508	432	12	18	6,980
Coll. of Med. Univ. of Iowa...........	4	8	576	728	...	156	276	526	360	276	486	102	25	108	324	46	128	18	310	71	48	216	216	12	...	5,008
Med. Coll. of Drake Univ., Iowa Coll. Phy. and Sur....................	4	9	1,046	1044	144	144	216	420	216	252	432	144	72	72	216	36	72	36	144	...	72	72	144	12	72	5,078
Keokuk Med. Coll....................	4	6	420	620	120	240	270	750	200	210	315	180	110	100	160	90	75	75	390	60	226	150	150	60	150	5,121
Sioux City Coll. of Med..............	4	8	768	960	608	192	448	512	128	384	508	384	128	128	480	128	256	256	448	64	160	128	320	32	32	7,452
KANSAS.																										
Coll. of Phy. and Sur................	4	7	308	616	56	168	308	1,008	252	112	364	224	112	56	140	28	...	28	224	56	112	112	140	28	112	4,564
Kansas Med. Coll...................,	4	6	Refused to fill out blank form.																							
School of Med. Univ. of Kansas......	4	10	...	...	...	...	180	675	270	316	489	182	...	90	...	...	...	...	72	90	...	...	...	18	...	2,382
KENTUCKY.																										
Hospital Coll. of Med................	4	6	After three requests received no response.																							
Kentucky School of Med. and Hos.....	4	..	420	600	...	200	180	600	150	250	300	150	150	60	300	60	120	...	370	...	120	80	80	60	60	4,310
Louisville Med. Coll..................	4	6	378	546	54	216	106	768	212	216	648	79	108	216	324	54	108	...	324	54	108	216	216	40	108	5,099
Louisville National Med. Coll.........	4	7	280	348	50	148	392	474	180	216	228	144	96	96	160	30	120	72	128	112	128	56	54	32	128	3,672
Kentucky Univ. Med'l School..........	4	8	500	540	...	150	260	600	200	250	340	115	126	110	130	60	150	...	220	...	100	110	95	50	50	4,150
Univ. of Louisville Med'l Dep't.......	4	6	572	652	...	156	104	524	104	416	390	104	104	104	260	52	52	...	260	...	...	26	156	52	104	4,192
Southwest'n Homœo. Med. Coll. and Hos.	4	7	After three requests received no response.																							
LOUISIANA.																										
Flint Med. Coll. New Orleans Univ...	4	7	410	330	60	190	300	450	150	330	390	250	150	40	200	120	...	30	360	...	60	50	80	40	...	4,030
Med'l Dep't Tulane Univ. of Louisiana.	4	6	Refused to fill out blank form.																							
MAINE.																										
Med. Dep't of Bowdoin College........	4	6	138	161	23	46	92	136	60	92	166	92	46	...	69	20	23	6	45	...	12	...	23	8	12	1,340
MARYLAND.																										
Baltimore Med. Coll..................	4	7	433	297	28	184	336	560	224	364	500	160	186	80	168	28	252	98	224	...	84	124	84	14	84	4,512
Coll. of Phy. and Sur. of Baltimore....	4	7	540	810	60	225	150	1,320	315	180	270	165	60	120	120	60	60	30	90	60	30	30	150	30	150	5,025
Maryland Medical Coll. of Baltimore...	4	7	402	306	64	192	120	272	128	128	128	110	192	64	192	64	192	64	128	32	96	80	96	32	32	3,146
Med. Dep't of Johns Hopkins Univ....	4	9	748	740	68	240	264	800	489	311	180	208	70	150	174	20	136	31	44	118	132	88	96	20	106	5,233
Univ. of Maryland School of Med.....	..	7	After three requests received no response.																							
Southern Homœo. Med. Coll..........	4	7	364	540	58	202	156	348	130	156	312	26	156	78	338	52	39	39	260	78	78	78	156	12	78	3,734
Woman's Medical College............	4	9	224	224	56	112	196	112	95	112	196	140	168	30	168	56	...	26	140	34	28	140	168	20	...	2,445
Baltimore Univ. School of Med........	4	6	After three requests received no response.																							
MASSACHUSETTS.																										
Boston Univ. School of Med...........	4	8	296	535	27	120	171	388	167	317	360	55	48	60	132	49	99	28	312	...	20	72	98	6	48	3,575
Coll. of Phy. and Sur................	4	6	453	435	...	214	264	396	328	306	396	380	66	115	99	45	17	33	93	132	132	93	35	20	66	4,118
Med. School of Harvard Univ.........	4	8	Refused to fill out blank form.																							
Tufts Coll. Med. School..............	4	8	458	394	60	128	271	308	312	248	208	60	64	100	...	74	30	32	126	118	98	39	52	16	52	3,248
MICHIGAN.																										
Dep't of Med. and Sur. Univ. of Mich.	4	8	264	436	...	452	263	588	276	308	568	228	...	72	420	48	327	...	...	340	64	160	292	32	64	5,302
Detroit Coll. of Med..................	4	8	510	598	15	120	185	435	210	290	390	180	135	80	50	30	125	...	225	66	110	130	135	15	60	4,094
Detroit Homœo. Coll..................	4	6	450	915	...	120	180	570	180	180	480	120	180	...	240	30	120	120	570	75	180	...	300	30	...	5,040
Grand Rapids Med. Coll..............	4	7	After three requests received no response.																							
Homœo. Med. Coll. of Univ. of Mich...	4	8	400	300	20	120	199	456	276	128	568	228	40	60	180	48	40	20	300	20	100	160	240	32	20	3,955
Mich. Coll. of Med. and Sur..........	4	6½	448	448	56	224	224	832	240	416	416	128	64	64	128	64	64	120	192	32	64	64	64	64	64	4,480
MINNESOTA.																										
Coll. of Homœo. Med. and Sur. Univ. of Minnesota	4	8	532	396	80	164	442	505	519	360	428	160	80	120	138	...	128	128	224	32	96	80	112	16	64	4,802
Coll. of Med. and Sur. Univ. of Minn..	4	8	434	488	54	99	352	675	648	328	715	274	154	66	104	46	...	140	180	...	100	82	82	27	...	5,048
Med. Dep't of Hamline Univ..........	4	8	510	401	34	204	408	384	204	323	476	170	34	51	306	17	68	17	216	68	80	68	102	17	56	4,214
MISSOURI.																										
American Med. Coll. of St. Louis......	4	6½	448	532	...	252	168	500	112	112	112	168	112	56	56	84	84	112	448	...	168	56	112	112	56	3,860
Barnes Med. Coll.....................	4	7½	896	1,120	448	112	168	672	56	224	300	112	224	28	560	56	196	112	168	112	448	224	280	56	448	7,020
Central Med. Coll....................	4	7	448	364	56	168	168	280	224	168	224	112	112	56	224	112	112	44	168	...	56	56	140	56	56	3,404
Eclectic Med. Univ. of Kansas City....	4	7	After three requests received no reply.																							
Ensworth Med. Coll..................	4	7	440	320	245	145	240	736	540	180	420	180	190	125	160	60	90	60	120	...	100	130	320	30	345	5,176

	Number of years in course.	No. of months in term.	General medicine	General surgery.	Orthopædic surgery.	Obstetrics.	Pathology.	Anatomy.	Histology and embryology.	Physiology.	Chemistry.	Bacteriology.	Pædiatrics.	Physical diagnosis.	Gynæcology.	Ætiology and hygiene.	Neurology.	Mental diseases.	Materia medica and therapeutics.	Pharmacology.	Dermatology and syphilis.	Laryngology and rhinology.	Ophthalmology and otology.	Medical jurisprudence.	Genitourinary.	Total number hours in four-year course.
MISSOURI—Continued.																										
Homœo. Med. Coll. of Missouri	4	7	810	660	240	150	360	450	270	360	360	270	360	240	300	120	120	...	300	...	120	240	240	120	360	6,450
Kansas City Med. Coll	4	7	After three requests received no reply.																							
Marion-Sims-Beaumont Coll. of Med	4	7	555	605	35	120	240	465	270	180	285	70	70	45	100	30	95	30	180	...	65	70	150	15	65	3,740
Univ. of Missouri Med'l Dep't	4	9	1,120	848	...	175	317	597	312	283	453	186	...	52	210	54	37	...	80	84	10	...	100	17	...	4,935
Medico-Chirur. Coll	4	7	483	642	116	145	174	261	145	174	203	87	164	222	222	58	222	...	232	87	77	135	164	58	135	4,208
St. Louis Coll. of Phy. and Sur	4	6½	268	282	48	140	78	432	156	502	500	128	204	288	240	24	83	88	120	40	88	104	84	48	124	4,069
Washington Univ. Med'l Dep't	4	7½	462	462	28	120	224	686	168	84	434	70	126	56	91	28	112	28	112	...	119	42	84	42	98	3,676
Univ. Med. Coll. of Kansas City	4	7	600	870	180	240	270	510	270	420	420	150	180	60	300	30	300	...	150	120	60	90	150	30	120	5,520
The Woman's Med. Coll	..	..	After three requests received no reply.																							
Kansas City Hahnemann Med. Coll	4	7	After three requests received no reply.																							
NEBRASKA.																										
Med'l Dep't of Creighton Univ	4	7	450	390	90	90	180	610	140	200	180	80	...	60	180	20	210	45	150	...	90	144	180	20	90	3,599
Lincoln Med. Coll	4	7	After three requests received no reply.																							
Univ. of Nebr. Coll. of Med	4	8	704	...	780	100	280	856	504	360	756	280	192	392	32	36	96	12	128	216	32	32	128	16	64	5,996
NEW HAMPSHIRE.																										
Dartmouth Med. School	4	9	300	475	...	128	255	575	352	400	275	48	...	75	200	18	...	20	260	...	48	48	48	20	...	3,545
NEW YORK.																										
Albany Med. Coll	4	7	Refused to fill out blank form.																							
Coll. of Med. Syracuse Univ	4	8	406	332	...	192	206	470	180	274	243	84	56	58	52	30	...	8	174	...	...	60	60	4	...	2,889
Coll. of Phy. and Sur. Columbia Univ	4	8	375	573	40	85	154	711	150	210	300	48	100	32	121	...	70	...	118	...	25	35	25	...	40	3,212
Cornell Univ. Med. Coll	4	8	411	498	20	185	370	813	315	330	294	90	70	45	112	15	65	15	237	90	25	33	53	...	67	4,153
Eclectic Med. Coll. of New York	4	7	360	432	...	147	336	216	168	192	456	20	72	96	192	96	72	...	312	24	96	192	144	20	...	3,643
Long Island Coll. Hos	4	7	382	273	13	300	228	448	150	338	290	41	120	288	144	15	36	...	286	52	39	15	29	15	35	3,537
Univ. of Buffalo Med'l Dep't	4	7	490	420	14	224	392	980	154	280	280	94	28	56	84	28	28	42	210	14	28	42	122	14	40	4,046
New York Homœo. Med. Coll. and Hos.	4	..	474	646	30	150	450	240	150	180	390	60	66	40	141	30	70	15	672	...	45	30	50	30	61	4,020
New York Med'l Coll. and Hos. for Women	4	7½	After three requests received no reply.																							
Univ. and Bellevue Hos. Med'l Coll	4	8	642	660	40	136	512	1,248	208	304	588	116	171	48	208	20	48	16	128	134	52	25	84	12	52	5,448
NORTH CAROLINA.																										
Univ. of North Carolina Med'l Dep't	4	..	248	256	...	87	318	400	325	188	340	88	74	93	81	15	...	31	108	...	20	46	50	...	15	2,783
Wake Forest School of Med	..	..	After three requests received no reply.																							
Leonard Med. School, Shaw Univ	4	..	300	320	...	120	136	992	126	520	808	116	60	...	86	...	...	...	336	...	...	65	210	6	...	4,201
North Carolina Med. Coll	4	8	After three requests received no reply.																							
OHIO.																										
Eclectic Med. Institute	4	7½	418	416	54	352	214	480	56	160	260	56	120	164	224	52	26	26	248	26	...	104	240	60	...	3,756
Cleveland Coll. of Phy. and Sur	4	7	736	832	64	128	372	966	256	256	384	140	96	96	192	64	64	64	160	96	64	128	...	16	32	5,206
Cleveland Homœo. Med. Coll	4	6	546	540	30	270	240	690	180	430	270	381	240	225	375	21	59	16	195	30	60	255	300	39	285	5,677
Med. Coll. of Ohio, Univ. of Cincinnati	4	6	810	820	105	90	267	666	99	384	324	72	90	30	570	15	90	105	180	...	90	120	270	12	210	5,419
Western Reserve Univ	4	8	607	666	...	152	333	912	330	510	240	115	73	133	153	50	73	268	100	180	73	73	73	30	12	5,150
Miami Med. Coll	4	8	548	520	72	200	196	480	160	192	448	100	82	68	124	32	62	...	192	...	48	80	168	12	...	3,784
Ohio Med. Univ	4	7	600	570	30	120	190	525	230	240	270	150	60	120	180	30	60	60	120	60	210	120	240	12	210	4,407
Pulte Med. Coll	4	6	986	319	14	232	159	211	89	82	182	72	58	58	174	58	116	116	232	24	87	116	232	15	116	3,748
Starling Med. Coll	4	7½	420	480	...	150	240	390	210	130	240	120	60	60	180	30	30	30	120	...	30	30	90	30	30	3,100
The Laura Mem. Woman's Med. Coll	..	..	After three requests received no reply.																							
Toledo Med. Coll	4	7½	600	810	...	120	120	510	270	180	270	150	60	90	90	30	30	30	180	60	150	100	60	30	180	4,120
OREGON.																										
Univ. of Oregon Med'l Dep't	4	7	460	320	70	160	108	160	149	216	190	108	54	134	162	13	15	...	136	...	134	...	54	14	108	2,765
Willamette Univ. Med. Dep't	4	6	168	144	24	60	48	160	72	144	192	24	48	96	120	24	48	96	144	...	48	24	96	48	48	1,876
PENNSYLVANIA.																										
The Temple Coll. Dep't of Med	5	..	382	518	84	233	290	528	108	216	204	218	66	76	193	112	56	12	292	40	50	92	108	21	120	4,019
Univ. of Pennsylvania Dep't of Med	4	8	709	686	...	136	264	725	192	416	272	90	56	56	96	64	88	16	111	80	92	22	102	16	...	4,289
Hahnemann Med. Coll. and Hos	4	6	348	382	43	176	293	250	252	210	316	49	78	198	125	90	42	15	645	126	58	47	100	30	48	4,021
Jefferson Med. Coll	4	..	676	742	44	240	391	614	252	174	279	108	64	60	122	45	68	30	210	64	34	52	92	16	106	4,483
Medico-Chirur. Coll. of Philadelphia	4	7	359	525	87	216	328	640	90	194	358	134	59	69	121	68	60	...	138	252	56	17	104	16	31	3,994
Western Pennsylvania Med. Coll	4	8	1,216	1,216	128	224	336	288	192	356	320	144	162	64	96	64	64	32	288	64	64	64	64	16	64	5,526
Woman's Med. Coll. of Pennsylvania	4	7	After three requests received no reply.																							
SOUTH CAROLINA.																										
Med. Coll. of the State of So. Carolina	4	6	Refused to fill out blank form.																							
TENNESSEE.																										
Chattanooga Med. Coll	4	6	684	884	...	238	646	396	208	540	448	606	208	468	312	156	208	208	344	52	156	208	364	104	52	7,490
Tennessee Med. Coll	4	7	After three requests received no reply.																							

	Number of years in course.	No. of months in term.	General medicine	General surgery.	Orthopædic surgery.	Obstetrics.	Pathology.	Anatomy.	Histology and embryology.	Physiology.	Chemistry.	Bacteriology.	Pædiatrics.	Physical diagnosis.	Gynæcology.	Ætiology and hygiene.	Neurology.	Mental diseases	Materia medica and therapeutics.	Pharmacology.	Dermatology and syphilis.	Laryngology and rhinology.	Ophthalmology and otology.	Medical jurisprudence.	Genitourinary.	Total number hours in four-year course.
TENNESSEE—Continued.																										
Univ. of Nashville Med'l Dep't........	4	6	364	436	...	208	228	336	120	180	264	114	126	26	364	26	156	...	156	...	208	...	300	52	182	3,846
Univ. of Tennessee Med'l Dep't........	4	6	350	333	...	87	56	448	80	180	246	48	27	44	270	20	10	8	180	20	40	42	140	12	84	2,725
Univ. of West Tennessee............	4	7	496	506	120	460	320	260	300	240	330	240	90	100	200	40	40	40	190	50	40	40	50	24	50	4,226
Med. Dep't of Vanderbilt Univ........	4	6	480	344	...	122	98	638	72	156	280	144	72	...	216	28	22	258	175	90	22	...	151	8	96	3,472
Meharry Med. Coll. Walden Univ......	4	6	220	210	...	70	55	320	90	310	360	30	24	20	70	20	...	...	240	...	...	...	16	12	4	2,071
Memphis Hos. Med. Coll.............	4	6	After three requests received no reply.																							
The Univ of the South Med'l Dep't....	4	6	234	221	26	104	78	348	78	156	260	78	52	36	130	52	...	52	156	52	26	...	130	40	52	2,361
Knoxville Med. Coll..................	4	6	After three requests received no reply.																							
Chattanooga Nat'l Med. Coll..........	4	8	After three requests received no reply.																							
TEXAS.																										
Univ. of Texas Med'l Dep't...........	4	7½	549	630	27	174	522	754	255	301	378	90	116	36	205	30	58	...	116	116	58	87	87	27	29	4,646
Fort Worth Univ. Med'l Dep't........	4	6	260	780	...	338	124	476	214	182	364	146	104	52	104	26	26	26	156	52	104	130	130	20	104	3,918
Baylor Univ. Coll. of Med...........	4	6	728	780	52	180	598	884	312	260	624	156	156	52	120	52	104	104	156	...	52	52	52	104	52	5,630
Dallas Med. Coll......................	4	10	360	320	40	140	80	560	80	200	240	100	100	80	160	40	40	40	120	...	160	80	80	40	80	3,140
Gate City Med'l Coll.................	4	6	500	208	52	208	118	300	66	176	236	66	104	52	156	52	26	52	236	260	82	60	104	26	104	3,244
Physio-Med. Coll. of Texas...........	4	6	78	78	...	52	...	126	26	104	78	...	52	52	52	52	26	...	52	...	26	52	...	26	26	958
Southwestern Univ. Med. Coll.........	4	6	260	332	104	260	272	732	156	272	182	44	104	88	260	52	104	...	156	312	156	72	200	52	156	4,326
VERMONT.																										
Univ. of Vermont Med'l Dep't.........	4	7	After three requests received no reply.																							
VIRGINIA.																										
Univ. of Virginia Med'l Dep't........	4	7	158	558	...	75	266	313	195	56	157½	91	18	72	85	70	47	...	126	...	52	...	66	20	46	2,471½
Med'l Coll. of Virginia...............	4	7	198	222	72	104	96	192	84	252	160	96	162	60	114	60	...	48	168	...	24	114	...	48	114	2,388
Univ. Coll. of Med...................	4	7	418	426	14	216	164	530	183	142	254	60	125	27	121	42	68	42	134	12	14	66	69	27	94	3,248
WISCONSIN.																										
Milwaukee Med. Coll.................	4	7	750	810	180	60	390	810	300	240	540	150	150	120	270	30	60	60	150	90	120	90	150	30	120	5,670
Wisconsin Coll. of Phy. and Sur.......	4	8	475	800	48	144	256	432	240	192	576	176	160	32	352	32	128	46	96	112	112	96	192	16	32	4,745

An analytical consideration of these tables and conclusions therefrom will follow.

(To be concluded.)

Original Communications.

THE DIAGNOSIS AND TREATMENT OF FISTULA IN ANO.*

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The tubular abscess which is found near the anal margin has been given the name of "fistula," from the Latin word meaning pipe. The condition was known ages ago, and was accurately described by the "father of medicine." The early literature is very scanty, probably from the supposed incurability of the disease. The Fifth Henry of England died of the disease, in 1422. Félix operated on Louis XIV, of France, for fistula and was paid over $73,000, an enormous sum for those times.

The disease is no respecter of persons, age or sex, and is the most common of rectal troubles. As Desnost (1) says:

> Parmi tous les fléaux qui de l'humanité,
> Détruisent le repos, je crois en vérité
> Que la fistule anale est un des plus horribles
> Et celui qui produit les maux les plus terribles.
> Comme un chancre rongeur pénétrant les tissus.
> La fistule, en effet, propage au loin le pus,
> Corrompt tout sur sa route, et bientôt nécessite
> Une opération qu'il faut faire au plus vite,
> A moins qu'à Mont-Parnasse on ne soit envieux
> D'aller avant le temps rejoindre ses aïeux.[1]

Its great frequency is shown by the fact that over 50 per cent. of the 16,060 rectal cases treated in St. Mark's Hospital, London, from 1872 to 1891 (2), were some form of anal fistula.

In regard to the ætiology, the consensus of opinion among writers is that fistulas are invariably secondary to abscesses, although a congenital cause may exist occasionally. Such a case is reported by Dr. von Kurt Bartholdy (*Arch. f. klin. Chir.*, lxvi, page 956, 1902). Microscopical examination showed telangeiectatic elements, indicating that it was congenital. The fistula extended from the gut to the surface. Serenin (*Obosrenje med.*, January, 1901) reports three cases of suppurating dermoid cysts between the rectum and sacrum, causing fistulas.

The abscess cavity shrinks, and from being an irregular cavity, it gradually becomes tubular by a circular formation of fibrous tissue. The great activity of the surrounding muscles exercised during defecation and micturition prevents spontaneous healing. Necrotic masses also tend to keep up pus formation. The small lymphatic vessels which surround the fistula continue to bring to it pyogenic organisms, either by osmosis, according to Hartman, or from an opening communicating with the rectum. The influence of the colon bacillus has not been determined; in two of the writer's cases there was almost a pure culture of this bacillus. A study of the lymphatic system at the lower part of the rectum shows the great number of these vessels beneath the sphincters, and columns of Morgagni (3). Another cause is the *anorectal sinus of Hermann.* The columnar epithelium of the large intestine is abruptly changed into the stratified epithelium of the mucous membrane of the anus. The mucous membrane between these two layers is called Hermann's anal mucous membrane. The latter is elevated in several places by the columns of Morgagni, so that it forms a sinus; the elevated parts (covering the columns of Morgagni), are convex, the sunken parts or depressions, which are between the columns are concave (4). As a great proportion of fistulas in which the internal opening has been found are situated at the mucocutaneous junction, a plausible cause for the condition is injury to the delicate mucosa at this point by hard fæcal masses, and the forcible introduction of septic organisms into the small lymphatics or Hermann's sinus. Bacteria may be conveyed thence into the ischiorectal fossæ or, in some cases, even higher up the rectum. A case is reported by E. Tavel (*Deutsch. Zeitschr. f. Chir.*, LXII, 5 und 6, 1902, page 399) of cystic degeneration of the sinus of Hermann, who says that in operating on a non-tuberculous case of anal fistula a cystic cavity was opened which embraced the rectum laterally and posteriorly, between the external sphincter and the sacrum. A number of cysts in the internal sphincter and around the wall of the rectum were opened and curetted.

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* Read before the Northwestern Medical Society, Philadelphia, April 26, 1904.

[1] Of all the scourges that afflict mankind,
Wrecking his peace, in very sooth I find
In anal fistula about the worst,
With its attendant train of evils cursed.
For like a canker that corrodes the tissues,
Forth from a fistula afar there issues
A fount of pus, corrupting all its course,
Till operation is the sole resource—
Unless to Mount Parnassus one would climb
To join one's forefathers before one's time.

As regards age and sex, we will simply say that the male sex during middle life is the most fertile field for this condition, although the female also suffers, and youth and old age are not free from its ravages.

The rôle that tuberculosis plays in the causation of fistulas is as yet under discussion, Allingham stating that 14 per cent. of all his cases of fistula were tuberculous, although many cases of tuberculous fistulas are seen in which there is no sign of tuberculosis elsewhere.

The primary influence of syphilis in the production of fistulas is through an ulcerative process or the breaking down of a gumma, although the presence of the disease complicates the conditions and retards recovery. In a case of the writer's, a female came with a history of having had a pile treated by an irregular practitioner, probably by injection. Examination disclosed a blind internal fistula, the opening being between the sphincters. The husband had a specific history. A general anæsthetic was given and the fistulous tract curetted and packed, and a close watch was kept on the wound. As granulations did not form at the proper time, daily inunctions of the following ointment were given for eight days:

℞ Petrolati } āā ....ʒss;
Lanolin. }
Unguenti hydrargyri..............................ʒi.
M. Ft. ungt.

She was also given fifteen grains of sodium iodide, t.i.d., the dose being gradually increased. Two days after this was begun, the wound became pinker, healthy granulations formed, and the wound closed perfectly.

After making the diagnosis of a fistula the ætiology of the case should be gone into carefully, and the presence of any tuberculous lesion, a specific history, and the superficial or deep origin of the disease noted. Wood (5) calls attention to the importance of the latter.

The general classification of fistulas is: *(a)* complete and *(b)* incomplete, and *(c)* external or *(d)* internal. If a fistula has only one opening, and that external to the white line of Hilton (or the mucocutaneous junction), it is called an incomplete, or blind external, fistula; if there is one opening, internal to this line, it is called an incomplete, or blind internal, fistula. A complete fistula is one which has one opening external and one internal to Hilton's line.

The blind external fistula seldom causes much discomfort, there is no sense of throbbing or pulsatile pain, and often the patient will complain only of itching, moisture, and the occasional discharge of a small quantity of pus. This condition may exist for years, and the general health not be interfered with. Inspection will reveal a small nodule often of unbroken skin, and palpation will show a cordlike structure extending toward the rectum. If a probe is pressed against the nodule with slight force, a tract will be found discharging a small amount of seropus or mucopus, and if care is used not to make a false passage, and the probe is bent to follow the apparent course of the tract, its extent may usually be determined. In some cases it is impossible to do this, as the tract may take an abrupt angular course, which can only be known at the time of operation. "In examining a fistula, if the probe passes higher up along the rectum than just above the sphincters, or two or more fistulous tracts parallel to each other run farther up, a more deep-seated cause should be looked for. As a rule, it will be found to be caries of the inner surface of the sacrum, which can be recognized by an elastic swelling behind the rectum, or by local tenderness. Parametric abscesses must be considered in women." (Albert of Vienna) (6).

In passing the probe to follow the tract do not use force, for, as Treves says (7): "It must not be forgotten that the connection between the mucous and muscular coats of the bowel is comparatively lax, and that a large steel director, roughly used, will pass with great readiness through the submucous tissue, and will give rise to conceptions of burrowing sinuses which exist only as results of the surgeon's bungling."

While the probe is being passed, both in a blind external and a complete fistula (all fistulas are assumed to be complete until proved the contrary), the index finger should be passed into the rectum. Sweeping the tactile surface of the finger over the mucous membrane should show the presence of any nodule or depression, which is most probably the site of the internal opening. The valve-like crypts of Morgagni may conceal internal openings. In a doubtful case a speculum should be used. It is frequently found that the point of the probe may be readily felt, only the mucous membrane being between. A careful examination by means of a speculum should then follow.

In the blind internal variety of fistula, the symptoms are often obscure. The patient complains of passing blood, pus, or mucus at times with a sense of pain, which is relieved by the discharge. Pain may be so severe as to make the patient avoid as long as possible the action of defecation, and yet may be so slight as simply to be an annoyance. If on examination there should be found at the anal margin a small amount of tenacious mucus, always look for a blind internal fistula. Any or all of the rectal reflexes (so called by Burke) (8) may be affected. There may be backache, pain in the thighs, general lassitude, or abdominal pain.

In making an inspection for external or internal fistulas, a good light is necessary, either direct or reflected. The patient is placed in the Sims position, with the buttocks elevated by means of a small pillow. Long silky hair about the anus makes the surgeon suspect tuberculosis. The character of the external opening should be noted; in the tuberculous the external opening is large and ragged, and pain is slight; but the discharge, while profuse, is thin and watery (9). A conical fenestrated speculum is useful, or a small size Bodenhamer, or a Pratt bivalve with electric attachment. A swab of gauze soaked in 10 to 20 per cent. solution of cocaine is introduced just within the anus, and allowed to remain for a short time. The index finger is now gently introduced and gradual dilatation accomplished and tolerance of the speculum established. A great many patients dread the examination, and pain at this time of the manipulation will often, especially in nervous subjects, render the examination difficult. Hypertrophy of the sphincter may be found, as a result of a fissure or from the chronic irritation of a fistula (10). There may also be sphincteric irritability, in which case, gentle manipulation will fully repay the time and trouble taken. In the tuberculous cases there is a patulous anus (11). The speculum is now introduced and instead of sweeping it round, it should be withdrawn to examine each segment of the bowel. If traumatism, ulcer, or the tearing off of a polypus is the primary cause of a fistula, the internal opening may be situated at any part of the circumference of the rectum. As a rule, there is but one internal opening, and this is usually found in the last inch or two of the bowel, and in the anterior or posterior quadrant (12). The internal opening of fistulas, in 90 per cent. of cases, is between the sphincters (Allingham). If there are two internal openings on the same level, they are usually the openings of separate fistulas. The opening will now be seen as an ulcerative opening, or at the apex of a small papilla, and a drop of pus will usually be found to exude, when pressure is used. Probes of various sizes can be used, to follow the course of the tract. Those made of pure silver are very pliable and can be bent at any angle. It is sometimes impossible to follow the course of a fistula, even with a trivalve operating speculum, and the patient under ether. One case of the writer's showed a blind internal fistula, the opening being between the sphincters, and extending to the promontory of the sacrum, in an oblique direction. A case may be proved to be complete by placing a piece of gauze in the rectum and injecting a colored fluid into the external opening. Iodine was used by Amussat (13) for this purpose, while Senn, of Chicago, in a note as editor of von Esmarch and Kowalzig's *Surgical Technic* (14) says: "The most reliable diagnosis to determine the existence of a complete fistula, is to inject through the external opening peroxide of hydrogen. If the fistula is incomplete, tension and pain will follow. If it is complete, foam will escape from the anus." Ball, in Treves's *System of Surgery*, says (15): "The internal opening (in a complete fistula) is a subject of very considerable importance, as, unless acquainted with its usual position (between the sphincters) the surgeon may fail to find it, the mucous membrane of the bowel being separated for a variable height above the orifice, due to the suppuration."

Another variety of complete fistula, called the horseshoe, runs from one ischiorectal fossa to the other, usually with one external opening, and one or two internal openings. This is regarded as one of the most formidable varieties with which the surgeon has to deal (16).

The diagnosis having been made, the treatment may be palliative or operative. The palliative treatment occasionally effects a cure, but usually only prevents the extension of the disease. In a blind external fistula in which the pus is watery there is the least danger of extension, but if there is much induration, burrowing will continue, and the longer a fistula is left the more difficult it is to cure. Allingham (17) has cured cases by the use locally of strong carbolic acid, iodine, or chromic acid. The outer opening should be well dilated, the sinus well cleaned out, and a small piece of wool saturated in strong carbolic acid with 10 per cent. of water, passed to the bottom of the sinus. A drainage tube, large enough to fill the sinus, is inserted and retained. If the treatment is successful a shorter tube will be found sufficient day by day. Mathews, of Kentucky, uses a fistulatome, by means of which the tract is scarified. He is, nevertheless, in favor of the knife as the best method of cure. Rose (18) passes carbonic acid gas through fistulous tracts with satisfactory results. De Vevey (19) uses triweekly injections of 2 to 2.5 per cent. solutions of copper acetate, keeps the patient in the reclining position, and gives guaiacol and small doses of dilute copper acetate internally.

Of the operative methods, the use of the elastic ligature, the method of electrolysis, and the écraseur, have their advocates, but the methods most in use at the present time are excision with the attempt to obtain primary union, and incision, in which union by granulation is sought for. Tuttle (20) says "the percentage of failures in operations on fistulas exceeds that of operations for cancer of the rectum." Pennington (21) remarks, "the mere passing of a grooved director through a fistulous tract, and dividing the tissues over it, is very poor rectal surgery, and not to be commended." Mathews (22) also writes that "no rules which are laid down in books on surgery can be your guide in operating on fistula in ano. The books instruct you to pass a grooved director into the external opening and follow it down to see if it goes into the bowel; if it does, pull the end of the grooved director out of the anus, and then divide the tissues upon the director. This will not cure one in fifty cases." Mr. Allingham says: "It requires more dexterous surgery to cure a bad case of fistula in ano than any surgical affection I know" (op. cit.).

In the preparation of the patient for whichever operation is to be done, the same care should be taken as if a major operation were to be performed. Free catharsis should be had a day and a half to two days before the operation, and a laxative pill given the night before. The patient should be put on a liquid diet. Early on the morning of the operation, an enema of hot soap suds should be given, and a hot saline injection just before the operation. By the time purgation has stopped, there is very little fæcal matter in the bowel, and the operative field will not be flooded at the time of operation. The circumanal region should be scrubbed, shaved, and a moist antiseptic dressing applied. In regard to the anæsthetic, if there is any lung involvement, ether should not be used, as it is irritating, and patients dying after operation on tuberculous fistulas may do so from this cause (Gant) (23). Goodsall and Miles (24) show skiagrams of lung cavities in patients whom they operated on for fistula. If ether or chloroform is contraindicated, spinal cocainization may be used. The lithotomy position, retained by means of the Clover crutch, is preferred by many, although the location of the fistula should decide this.

In the blind external variety, the tissue above the fistula should be cut, either by knife or cautery, the incision being large enough to allow all discolored granulation tissue to be removed, all fibrous bands and pockets to be obliterated by the curette, and an incision made in the posterior wall of the fistula through the fibrous tissue, allowing granulations to spring through, in the same way as incisions through the edge of a chronic ulcer permit this. This is the so called back cut of Salmon. In the complete external fistula, the tract should be followed by the characteristic discolored tissue until the outer edge of the sphincter is found, when the muscle should be cut at right angles to its fibres, remembering that the sphincter is an ellipse, by reason of the attachment of the coccygeal and perineal ligaments. (The experiments of Valsalva showed that, after dividing the sphincter in dogs, though the anus regained its function, yet it was not as perfect as before) (25). All bleeding vessels should be ligated and a firm packing of iodoform gauze introduced for the first twenty-four hours; after this the packing is for the purpose of drainage and to prevent the union of the skin margins, until the wound can heal from the bottom. The writer agrees with Tuttle (26), that it is never necessary to make an opening into the rectum where no pathological one exists.

The method of excision is very old and frequently fails on account of the non-antiseptic methods. Smith, of New York, in 1879, gave an impetus to this method, followed by immediate suture, which is in use at the present time. The technic consists in an entire dissection of all fibrous tissue, as well as of diseased tissue, and the bringing of the deep structures together with buried catgut, the skin incision being closed with silkworm gut, a small portion of mucous membrane being brought down to cover the opening in the bowel. If primary union should be secured, all diseased tissue is removed, as well as all tracts. This method, where the fistulous openings are near the sphincters and rather superficial, is ideal, but the technic must be perfect regarding asepsis.

In the complete type of internal fistula, where the internal opening is high up above the sphincters, the tract should be carefully followed and incised on the skin side, until the internal opening is reached, and the rectal tissues and muscles are cut squarely across. If there is circumrectal burrowing higher than the opening in the bowel, it is not necessary to incise the bowel to a corresponding level, but careful curetting and removal, with scissors or knife, of pathological tissue are required. The deep parts of the wound should be closed with a continuous mattress suture, the cut muscles brought together with chromicized gut, and the skin closed by interrupted silkworm gut. If the sutures are carried through the skin into the deeper structures, the *Staphylococcus epidermidis albus* will be carried with the stitch, and infection of the deeper parts will take place. The incision into the gut through the sphincters should be made at right angles to the fibres, regardless of the direction of the tract beneath. The mucous membrane of the gut should be dissected from the muscle, and brought down, as in a Whitehead operation for piles, and stitched to the anal margin.[1]

Barge (27) states, that, by this method, union by first intention is secured, even in aggravated forms. Caselli (28) in a paper read before the Twelfth Italian Surgical Congress, states that he favors splitting fistulas, with excison of diseased area, by means of a semilunar incision with the concavity downward, including the infected tissue.

The bowels should be kept confined for six or seven days and the diet should be of a liquid, albuminous kind. A hot enema of oxgall, glycerin, and water is then given, and repeated, if necessary, to dissolve the hardened fæces, when daily movements may be induced.

According to Pennington (29), in cases of the posterior horseshoe variety, incise all tracts except the one entering the bowel. This should receive a thorough curetting, crucial incision of its entire length, and irrigation with 1 to 2,000 bichloride, followed by normal salt solution. In dividing the external tracts the anococcygeal ligament is cut, which severs the posterior attachment of the external sphincter and levator ani muscles. The pressure of the dressings holds the walls of the wound in firm apposition.

The case should be carefully watched until all granulations have disappeared, as the after treatment in all fistula operations is as important, if not more so, than the operation itself. In the complete internal variety where one opening is high up, and the tract is submucous, a bent probe or director should be carefully passed, and with the tissues under some tension, the finger should follow, to see if one of the branches of the superior hæmorrhoidal artery will be cut in making the incision. If this is impossible to avoid, the vessel may be clamped and ligated, or hæmostats left in position, until the vessel is occluded, when the operation may be finished.

Where the bowels are to be confined for six or seven days, a rubber tube, covered with gauze and rubber protective, and allowed to extend from the anus, should be inserted through a speculum, so that intestinal gas can escape. This may be allowed to remain for two days, unless it causes pain, when it should be removed, and iodoform gauze, lightly introduced, substituted for it.

In conclusion, great care should be taken in making the diagnosis; a moderate degree of tuberculosis of the lungs is not a contraindication for operation if in the operator's opinion sufficient vitality remains to restore the wounded tissue, but ether should not be the anæsthetic used; local tuberculous fistulas should be incised with a thermocautery, and early general hygienic treatment instituted; simple incision over a grooved director of fistulous tracts, disregarding sphincters, is poor rectal surgery; every effort should be made to preserve the sphincters, and if cut, they should be cut at right angles to the fibres, disregarding the fistula; finally, importance of the after treatment must be emphasized.

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[1] Since preparing this paper the writer has discontinued the method of excision with suture and an attempt to secure primary union. The method of incision, with exceedingly careful dissection of all fibrous tissue and tract, with loose packing for a short time and no packing at all in a few days, has never failed to cure the worst cases. The daily inspection, however, of the healing tract, with stimulation by silver nitrate, gr. xx-ʒi, when necessary, is important.

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Crystallized Wisdom: The True Estimate of the Physician's Worth.—"The fairest estimate of the true character and ability of a physician is always to be obtained from his brother practitioners, for they, and they alone, are in a position to know his worth and to appreciate him at his actual value."—Burnside Foster. A sketch of John Abernethy. *Medical Library and Historical Journal*, April, 1904.

SPECIFICS AND SPECIFIC METHODS IN THE TREATMENT OF PULMONARY TUBERCULOSIS.

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While it may be strictly correct to state "that a remedy is specific when it corrects certain well determined deviations from the normal or health state," for the purpose of this paper this view will not be adhered to. To illustrate: Pulmonary tuberculosis may have half a dozen or more distinct pathological changes bearing a definite relation to one another, as, for example, anæmia, which is a pathological change in the blood commonly resulting from pulmonary tuberculosis, and which can be corrected by iron. But iron cannot be regarded as a specific for tuberculosis, although it may indirectly influence that disease. Unless, therefore, the remedy, "while correcting one abnormal lesion or conditon, at the same time arrests the entire chain of morbid phenomena, it cannot be regarded as specific." Arsenic, on the other hand, may be regarded as a specific for tuberculosis, since, by its alterative action on the blood, it can be considered as unfavorably influencing the growth of the tubercle, and, therefore, arresting or curing the disease, while indirectly acting as a tonic. All remedies or methods of treatment for which a cure or arrest of the tuberculous process is claimed may be regarded as specific.

From the time of Hippocrates until the present the treatment of consumption has been conducted in accordance with the views held as to the pathological character of the disease. Hippocrates considered phthisis a suppuration of the lungs, due to different causes, and curable in certain cases. Galen also looked upon phthisis as a suppuration or ulceration of the lungs, and, in accordance with his views on the treatment of ulceration in other organs, he treated his phthisical patients by sending them to places where the air was dry, and in this manner he hoped to dry up the secretions and stop the ulcerating process. There is no doubt that he must have obtained good results by this treatment, for while he sought dry air, he incidentally obtained pure air. From the time of Galen to Sylvius no advance was made in the pathology of phthisis, and therefore no advance in its treatment. Sylvius recognized nodes in connection with suppuration of the lungs, but did not materially improve on Galen's treatment. Bayle, early in the nineteenth century, recognized miliary tuberculosis and described six varieties of tuberculous phthisis, declared that it was a specific disease, and that it was curable.

Laennec, who first described the tubercle accurately and recognized the common pathology of the different varieties, regarded tuberculous phthisis as practically incurable in the early stages, but curable in the later stages, that is, after the tubercle had softened and produced excavation, cicatrization would take place and thus the disease would become cured. He recommended sea voyages as the best means of treatment, or, when this was not possible, the production of an artificial marine atmosphere, in which the patient was to breathe.

From Laennec's time to the discovery of the bacillus of tuberculosis by Robert Koch, no important advance was made in the treatment of pulmonary tuberculosis, in fact, the entire medical world had lapsed into a condition of apathy with reference to the cure of this prevalent disease. But with Koch's announcement a new stimulus was infused, and numerous remedies and methods were advocated to cure the disease whose specific cause was now known.

Antiseptics aimed at killing the bacillus were given by the mouth, bowels, respiratory tract, or directly into the lungs through the thoracic walls. I shall not attempt to enumerate all the antiseptics and drugs which have been tried, but shall content myself with mentioning those most widely used, and briefly discussing their merits.

Creosote, including guaiacol and its carbonates and other salts, has been the most popular, and is to-day probably in more general use than any other drug. But it can hardly be considered specific, for although it seems in many cases to bring about an improvement in the unfavorable symptoms accompanying pulmonary tuberculosis, its action is probably indirect. It is usually given by the mouth, and occasionally by inhalation in combination with other drugs.

Probably the next most popular drug has been arsenic, for which specific properties have been claimed, but in the light of experience its action is principally tonic, and where good results have been obtained from its use it has acted probably in that way.

Iodine and its compounds, aristol, europhen, iodoform, iodopin, have been and are being used as injections and inunctions combined with olive oil. This group was the basis of the Shurly-Gibbs treatment so popular some years ago, which consisted of inhalations of chlorine, with hypodermic injections of a solution of iodine in glycerin, alternately with one of gold and sodium chloride. While this group of remedies still has its advocates, I hardly believe they claim for them specific effect. At one time, Bergeon's gaseous enemata of carbonic acid and sulphuretted hydrogen were in popular use, with the hope that it was a bactericide, but it proved a failure. Various antiseptic substances, such as the oil of cloves, turpentine, eucalyptus, peppermint, compound tincture of benzoin, have been used by mouth as injections, and as inhalations, in the hope of arresting the tuberculous process. Cinnamic acid and its compounds have been used, principally by injection, in order to bring about cicatrization of the tuberculous areas in the lungs. According to Burney Yeo, the inhalation of these antiseptics, if persisted in, will prove efficient in certain cases. It has been satisfactorily demonstrated, however, that the vapors of these various antiseptics fail to reach the affected part of the lung; but they unquestionably do good by stimulating and antisepticizing the mucous membrane of the trachea and bronchi, and thus facilitate expectoration, and ease the cough.

Intralaryngeal injections of a ten-per-cent. solution of menthol in glycerin, of izal and other remedies, have been tried; but there is one great objection to this form of treatment, that is, the difficulty of finding many patients who can stand the treatment. Besides, I agree with Yeo when he says that the same results are obtained by inhalation with far less inconvenience to the patient. The nuclein treatment has had a number of advocates. By this method, the white blood corpuscles (multinuclear) are increased, and the system has more phagocytes to destroy the microorganisms that attempt destruction in the lungs. Victor C. Vaughan, the principal exponent of this treatment, asserts that it acts as an arresting and curative agent in early cases; but as Vaughan also uses dietetic and hygienic measures in this treatment, it is difficult to say whether his results ought not to be attributed to the latter measures.

We now come to the various serum treatments, which within very recent years have agitated the medical and general public. Tuberculin, the first brought forward by Koch, is but little used now in the treatment of tuberculosis. Whittaker, of Cincinnati, was about the only prominent clinician in this country who used it up to the time of his death, which occurred recently. He says: "Proteids of other bacteria produce similar irritation as tuberculin, which with cautious dosage may be confined to the diseased centres, and when it does produce a cure, this is effected by the inflammatory irritation around the tubercle which causes the death of the bacilli." Whittaker recommends tuberculin in pure tuberculosis, except in cases of hectic, hæmorrhage, and serious affections of the intestinal canal. As nearly 90 per cent. of cases are excluded by this limitation and as the other 10 per cent. would probably get well under any form of treatment, I cannot see how tuberculin has any merit in treatment, even according to Whittaker's own testimony. The consensus of the opinions of general practitioners regards it as a dangerous remedy, which is liable to start up tuberculous infection in healthy parts of the lung. Personally I question the propriety of its use as a test for the existence of tuberculosis in man.

Now in regard to the various modifications of Koch's tuberculin, such as tuberculocidin, antiphthisin, the aqueous extract of purified tuberculin of Von Ruck, Hirschfelder's oxytuberculin, and Koch's new tuberculin R, all have been used with indifferent success by various clinicians. Knopf, in his article Tuberculosis, in the *Twentieth Century Practice,* says of them collectively, "Whenever a new culture product is discovered and through experiments on guinea pigs is shown to have a specific antituberculous effect, it is usually recommended with the following restrictions: it is not to be used in advanced cases, in mixed affections, or as an exclusive remedy, but always in connection with the best of hygiene, and the best of diet, and the symptomatic treatment must not be neglected. And the results of the treatment read about as follows: A large percentage of incipient cases have been cured, a small percentage of advanced cases have been benefited, a still smaller percentage have remained indifferent to the treatment, and a very small percentage have died." Then he adds most pointedly: "Cannot any one private practitioner or sanitarium physician report just as good and even better results, whenever hygienic, dietetic, symptomatic, and educational treatment has been carried out conscientiously without the aid of any specific or antibacillary remedies?"

Very recently the idea has been advanced that if the streptococcus infection in pulmonary tuberculosis could be eliminated and the pure tuberculous condition established, a cure could be more readily obtained. To that end antistreptococcus serum has been injected, and, it is alleged, with good results; namely, a reduction of temperature and improvement of other symptoms. I have tried it in four cases of my own, and have seen two patients who had received those injections from other physicians, and, judging from the results, I am not very enthusiastic over this method. Neither, theoretically, does it appeal to me, for to my mind the antistreptococcus serum should be used only in those cases in which the streptococci or their toxines can be demonstrated in the blood, as in cases of general septicæmia. Unless, therefore, it can be demonstrated that the patient's fever is due to the streptococci or their toxines in the blood, the use of the serum is not indicated. Upon this subject Knopf, in his article Tuberculosis, in the *Twentieth Century Practice,* says: "The action of the serum is not always uniform, and there are *evidently other associations* with the bacilli, besides the streptococci, which cause the hectic condition of the patient."

Soon after Finsen announced the results obtained by the actinic rays upon lupus, numerous experimenters tried to obtain cures by their application in pulmonary tuberculosis. Kime devised a compound mirror from which the actinic rays of the sun were reflected (the heat rays being absorbed) on the bared chest of the patient, who sits in front of it. No wonderful results have been reported from this treatment. Sterne, of Indianapolis, devised a cabinet in which the patient was placed nude, surrounded by specially wound voltaic arc lamps; at the same time the air breathed by the patient was charged with free ozone or formal ozone. According to Sterne, "the nude body being bathed in actinic light, the light penetrates the skin and enters the blood corpuscles coursing beneath, causing an increase of hæmoglobin and a quick augmentation of the corpuscular elements." This treatment was tried faithfully at the National Jewish Hospital for Consumptives, with negative results.

Have we, then, any true specific in the treatment of pulmonary tuberculosis? I do not believe there is or ever will be any one remedy which will prove specific. Especially where the destruction of lung tissue has taken place, it is beyond reason to expect restoration to its original state. In acute phthisis, where profound constitutional disturbances have occurred, nearly every remedy is bound to fail. Rarely is it possible to check the rapidity of the disease, and thus convert it into the more chronic forms. A great deal can, however, be done for the early cases of chronic pulmonary tuberculosis, and in a large percentage of these a cure can be effected. One thing the phthisiotherapeutist has learned, that he cannot treat the disease as an entity, he must conduct the case according to the peculiarities, temperamental and physical, of his patient. He has at his command one great therapeutic measure, to my mind almost specific, and that is, plenty of pure, aseptic air. Learn the patient's previous condition of life, correct such faults as may exist in his environment, diet, personal hygiene, breathing, exercise, habits, and dress. When possible a patient living in a closely built city should be sent to a place where he can obtain the largest percentage of sunshine in elevated localities with an altitude of from two to six thousand feet.

Sanitaria located favorably are certainly most desirable, for here the daily life of the patient is regulated under the supervision of a sanitarium physician; but much can be done with home treatment and the intelligent cooperation of the patient. It is, then, by aerotherapy, personal and general hygiene, dietetics, pulmonary gymnastics, together with hydrotherapy and the symptomatic treatment with drugs, that the physician of to-day is curing his cases of pulmonary tuberculosis.

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A UNIQUE CASE OF CHOREA.

By JAMES T. WRIGHTSON, M. D.,

NEWARK, N. J.

A woman at whose birth I officiated twenty-one years ago—normal delivery every way—gives the following brief antecedent history, family and personal:

Father is of a very nervous temperament; at one time it was feared he would lose his mental faculties, but at the present time he is in perfect mental and physical condition; otherwise the family history is negative. Personal history: At the age of six years, the patient had a very slight attack of chorea, as evidenced by slight and irregular contractions of the facial muscles. These contractions were readily controlled in a comparatively short time by small doses of arsenic. Since that time, her sixth year, she has not been sick enough to require medical attention. She was married in June, 1903. In August, 1903, she did not menstruate. In September, 1903, she was again afflicted with irregular facial contractions, which gradually increased in severity and distribution, involving finally the muscles of the extremities and the muscles of phonation and deglutition. There was absolutely no sleep or rest, and the distortions and contortions of her face were appalling. Her tongue was bitten and thickened, so as almost to occlude her mouth. Her nourishment had become impaired, due to the interference with the act of deglutition. Her muscular activity was so violent as to endanger her life. On several occasions she would involuntarily turn about so as to rest with her face and mouth on a pillow, thus running the danger of becoming asphyxiated; falling out of bed was prevented by having her under constant surveillance; for this purpose she was bandaged as a papoose.[1] Mentally she was normal, except in her physical attempt at speaking, which act was impaired as a result of her muscular twitchings, although her facial expression was blank. This is the clinical picture as it gradually developed from September 20th to October 20th.

The time honored treatment of arsenic—the liquor potassæ arsenitis, as well as the Asiatic pills, pushed to the full extent of their therapeutic limit, availed nothing. Bromides, of course, as is expected in this class of cases, failed absolutely. Morphine checked to a slight degree the extreme restlessness, and induced a limited amount of sleep. It was not until sodium salicylate was resorted to, however, in large and repeated doses, fifteen grains every three hours, that any decided change was noticed. Under the influence of sodium salicylate she improved rapidly, and in two weeks was able to carry food to her mouth. At this time, while congratulating myself as to her recovery from chorea, her left pleural cavity began to fill up. There was no chill, temperature not over 100° F. Within one week there was an exudate of three pints, which was evacuated with the aspirator, and she made an uneventful recovery. She has no more signs of chorea or pleural exudate, and her pregnancy has continued, and is now at the fifth month.

The very interesting and perplexing question which presents itself is, of course, the cause of so severe an onset of chorea. With no history of rheumatism, the first inference would strongly be chorea gravidarum. But true perspective always implies consideration for distances, far as well as near. Were this a case of chorea gravidarum, would anything short of emptying the uterine cavity cut short the attack? Would she not have grown gradually worse, if that were possible, as pregnancy developed? Would any medication have stayed the onset of its progress? Decidedly not. Would Nature not have asserted itself, and favored abortion? Very probably. These factors were all carefully considered, and just prior to the happy thought of trying sodium salicylate the opinion was strongly entertained of producing an abortion. Of course, pregnancy may have aggravated the attack, yet the exciting cause was due to another factor. This factor was undoubtedly rheumatism—in spite of the absence of rheumatic history and endocardial complications—proved by the effect of the salicylate, by the appearance of pleural exudation, the abatement of all symptoms of chorea in spite of pregnancy, and the continuation of pregnancy.

The most reliable statistics give a rheumatic association in about 20 per cent. of all cases. If the milder manifestations of rheumatism are accepted and allowances made for the unrecognized cases, it is permissible to say that rheumatism is associated with chorea in one half of all cases.

12 CENTRAL AVENUE.

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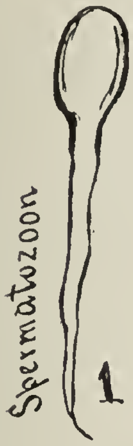
[1] In consequence of her muscular activity, her muscular tone was so reduced that the slightest touch was actually painful.

ORIGIN OF THE VERMIFORM APPENDIX. A PRELIMINARY REPORT.

By ALFRED MOORE, M. D.,

MEMPHIS, TENN.

The accompanying rough drawings are to illustrate, as nearly as I can, my theory of the way in which the vermiform appendix is formed in the human being. I have been trying for a long time to find out its origin, and have spent much time and study on the subject. I have tried in my own mind to connect it with nearly every other organ in the body, and have finally concluded that, as other organs are formed from two or more structures, possibly the appendix might have been formed in a similar way. Working along this line, I tried to figure it out as the letter H, and have been awaiting an opportunity to examine the embryo, but only succeeded on November 7, 1903, in getting one to dissect. From that one specimen I have



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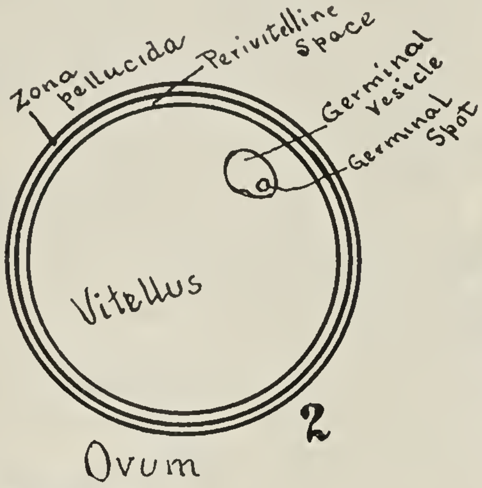

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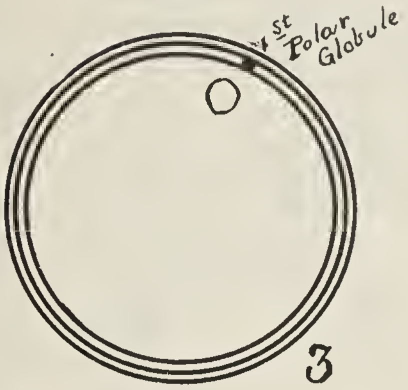

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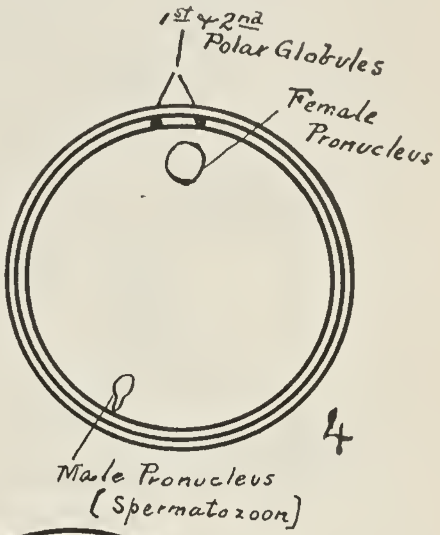

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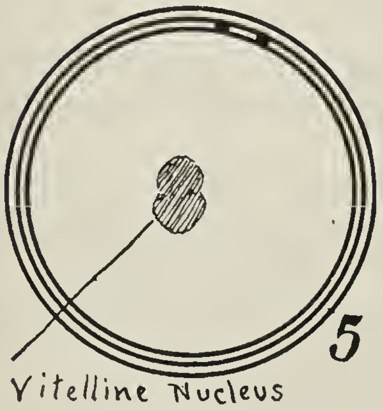

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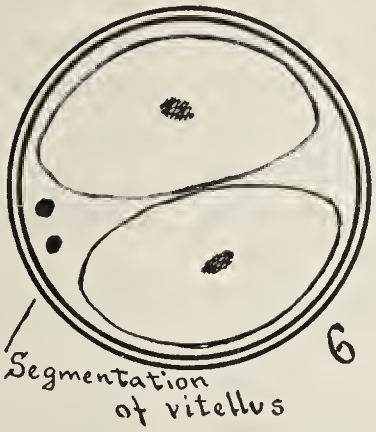

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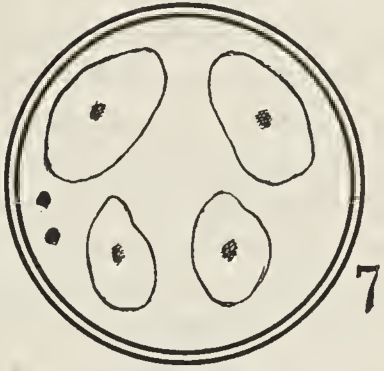

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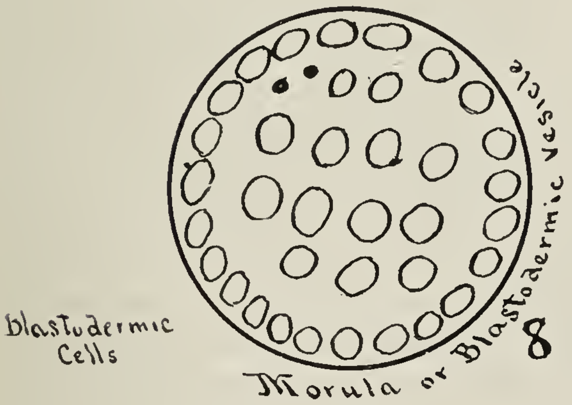

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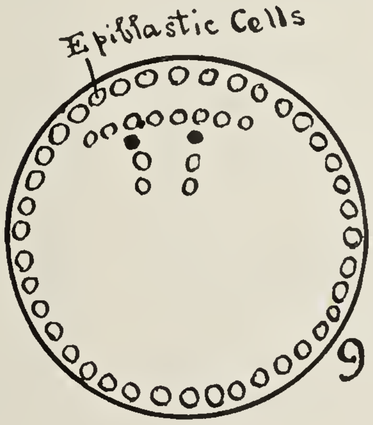

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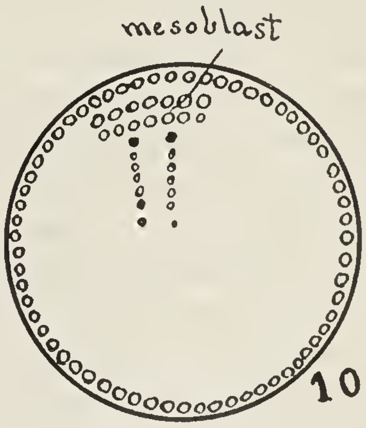

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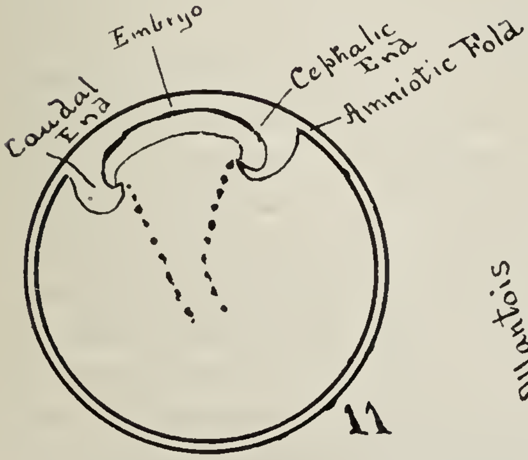

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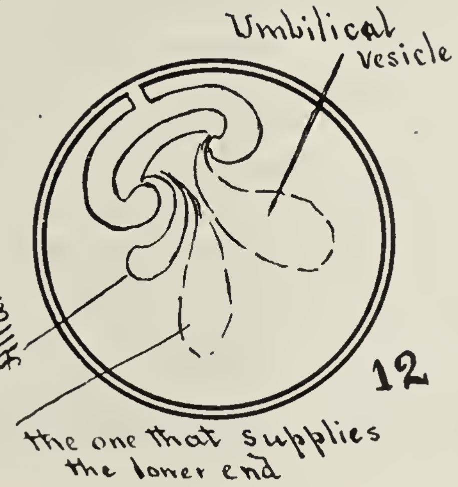

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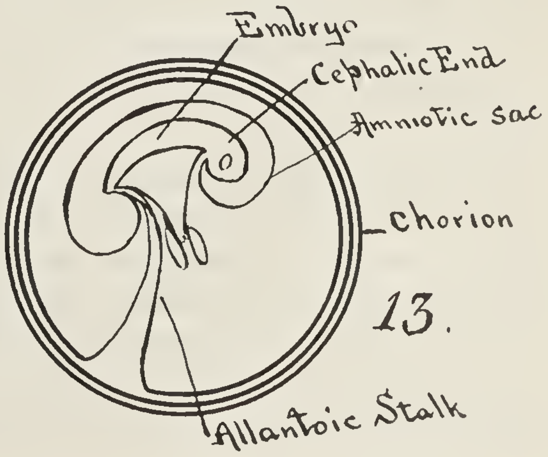

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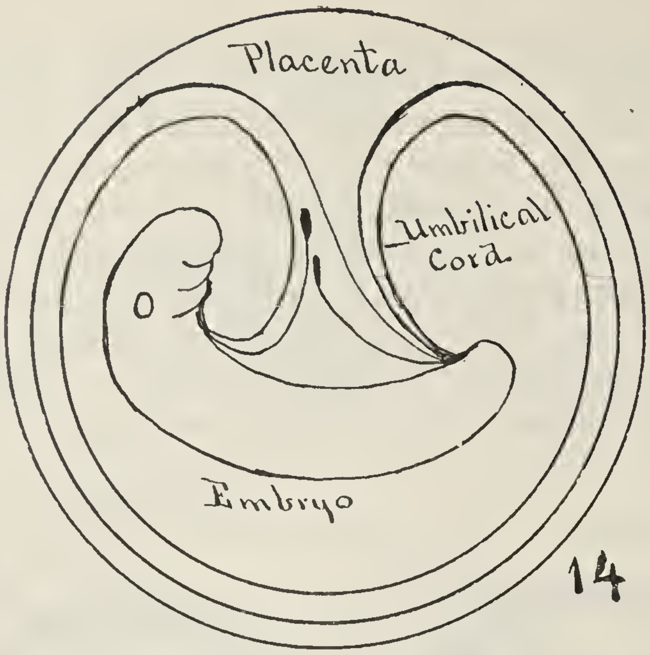

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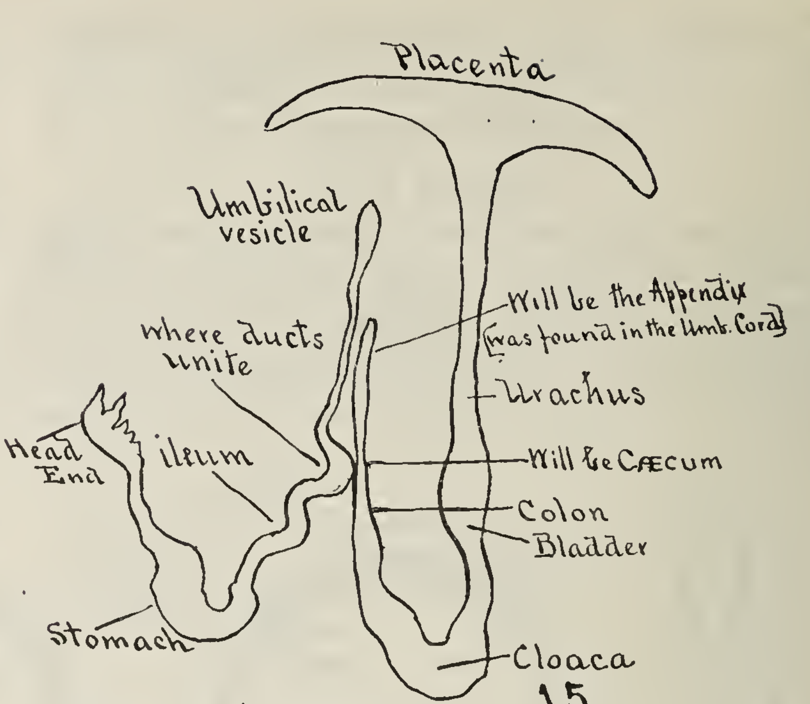

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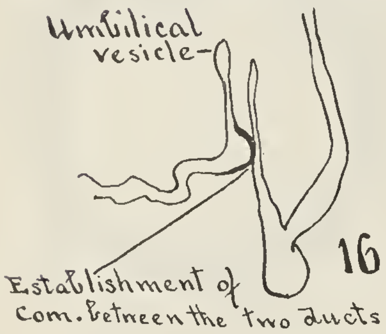

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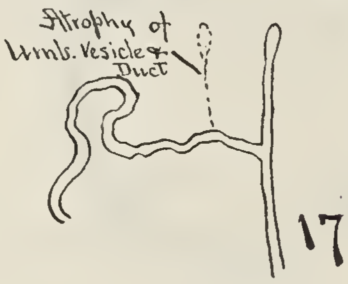

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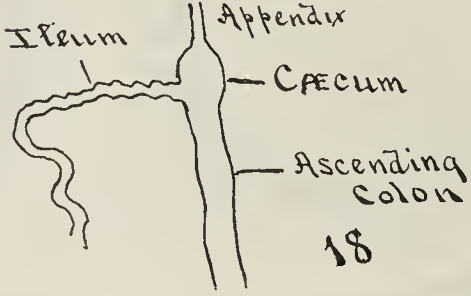

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worked out and made this preliminary report, which, of course is as yet crude, and amounts to nothing unless I, or some one else, can trace it further in the embryonic and preembryonic stage. The specimen that I examined was diagrammatically more like K than H, and was, as near as I can diagram it, like the drawing in Fig. 15. I believe that the appendix was the distal end of a tube that led from the vitellus to the lower end of the embryo, and that the proximal part finally developed into the colon or otherwise the large intestine; that the umbilical vesicle and duct were the distal, or outer, end of another tube or duct, of which the small intestines formed the proximal part; that the two parallel tubes, joining by the umbilical duct becoming tortuous and touching the other tube at one point, which is the most prominent part of its convexity in one of its turns, union takes place, the sacculation is increased, and the umbilical duct atrophies, and is necessarily removed from the other tube by the rapid growth of the small intestine; which fact accounts for Meckel's diverticulum, when present, being so far away from its fellow. After communication between the two tubes the large intestine increases in size and the cæcum is formed.

There is nothing original in the first eight diagrams, as they can be found in most works on physiology or embryology; but, beginning with the ninth diagram, I have shown the hypoblastic cells arranged around the polar globules and extending from each outwardly, which is better shown in diagram ten. These polar globules mask the cephalic and caudal ends, respectively, and from each one of the polar globules one of the ducts arises.

SYPHILITIC MANIFESTATIONS IN THE NOSE AND PHARYNX.*

By PAUL TURNER VAUGHAN, B. Sc., M. D.,

HOT SPRINGS, ARKANSAS.

Unfortunately for years the manifestations of syphilis have been divided arbitrarily into three distinct classes, viz.: Primary, secondary, and tertiary manifestations. This classification of symptoms, as every one who has had much experience in dealing with syphilis will acknowledge, is faulty; but in lieu of a better classification we still retain it, and speak of primary, secondary, and tertiary syphilitic symptoms. I say it is faulty, because generally, the secondary symptoms are supposed, according to the textbooks, to occur within the first eighteen months after the primary sore, and the tertiary symptoms at any time after this period has been passed.

Quite a number of cases of nasal and throat syphilis have come under my observation where extensive ulceration, perforation, necrosis, and destruction of the parts involved has ocurred within six months after the primary sore, and in which the secondary and tertiary manifestations have been so mixed and blended that from the symptoms alone it would have been impossible to say what stage of the disease existed at the time of examination, had it not been for the personal history of the case. A primary specific sore in the nose or postnasal space is of rare occurence, and when present, can usually be attributed to infection from unclean instruments, the majority of such cases being caused by an improperly disinfected Eustachian catheter.

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* Read before the Mississippi Valley Medical Association, at Memphis, Tenn., October 7-9, 1903.

Personally, in looking over the clinical histories of five hundred cases of nose and throat syphilis, I do not find a single instance in which the primary sore was situated in either of these localities—i. e., in the nose or postnasal space.

Erythema, mucous patches, ulcerations and gummata may at various times be found in the nose of a syphilitic patient. Mucous patches and ulcerations are present in a vast majority of those infected with syphilis during some stage of the disease.

The secondary manifestations, and by these I mean the erythema, the mucous patch. and the superficial ulcerative process, are at times so slight that they produce no serious disturbance, and may even pass unnoticed; at other times, on the contrary, they may be very severe, produce great discomfort, and be quite resistant to treatment; especially is this so in the case of the mucous patch. It has been my observation that these secondary manifestations assume a more grave form in children and infants than in adults.

Not infrequently tertiary manifestations—and by these I mean the deep ulcerative process, gummata, perforations, and necrotic conditions—occur early in the course of the disease, and occasion extensive destruction both of the cartilaginous and bony sæpta and of the turbinate bodies. This necrotic process is invariably attended by a most offensive odor, something akin to, but distinctively different from, the odor present in atrophic rhinitis. There is a decided difference in the odor caused by the two affections, but the odor caused by syphilitic necrosis is immediately recognized by any physician who has had any previous experience with it. Fortunately for the patient, when necrosis begins, there ensues a decided impairment of the sense of smell, and in some instances this sense is entirely lost.

Primary sores of the pharynx are not met with in Hot Springs so often as one would suppose, judging from the material that has come under my observation, for among my cases of nose and throat syphilis I find only four cases in which the sore was situated in the pharynx. The initial sore, when found in the pharynx, usually lasts from four to six weeks, and does not differ materially from the primary syphilitic sore occurring on any other part of the body. The pharyngeal manifestations of syphilis in its secondary stage are the same as those present in the nose during this stage—erythema, mucous patches, and superficial ulcerative conditions. This erythema of the pharyngeal mucous membrane appears simply to be a passive hyperæmia, or congestion, and owing to the very vascular formation of the tissue involved, causes a dark purplish red discoloration of the throat, particularly marked in the region of the faucial pillars and of the soft palate.

There is something about this pharyngeal congestion of syphilitic origin which is almost pathognomonic after one has become familiar with it. As a general rule, this congestion produces no very uncomfortable symptoms—it occurs at any time in from four weeks to six months after infection. In one of my cases I observed it eight months after occurrence of the primary sore. It usually appears simultaneously with the skin eruption of the secondary stage, and disappears when the skin eruption does; in other words, there is a close connection between the erythema of the pharynx and the cutaneous eruption.

Mucous patches are probably the most constant symptom of syphilis in its secondary stage, and when present in the pharynx they appear by preference to locate about the base and on the sides of the tongue, on the tonsils, and on the soft palate. They usually occur as bluish-white elevations, and may make their appearance at any time after the initial lesson, even several years after, but they are generally observed as a secondary symptom. In the tertiary stage, gummata usually appear. During their early stages they are small, often pass unnoticed for some time, but gradually they enlarge, soften, break down, and finally a yellow ulcerating surface is presented. These ulcerations are of two kinds, superficial and perforating, and are generally located upon the soft palate or the tonsils. Their edges are rather irregular, but sharply defined, and they are coverd with a dirty, purulent secretion. These ulcers usually extend rapidly and destroy a great deal of tissue. Neither cartilage nor bone appears to offer much resistance to their extension, and consequently it is necessary to stop their progress by proper constitutional medication as early as possible, in order to avoid disastrous consequences.

In regard to treatment of these conditions, attention must be paid to both the local manifestation and the constitutional cause. After the occurrence of the primary sore, it is held by some that the use of mercury should be immediately begun; this is true, conditionally. At the Springs we see every year large numbers of patients in whom a suspicious sore has occurred, and who had immediately been put upon some form of mercury, with the result that other specific symptoms had been suppressed, and an element of doubt as to the real nature of the sore injected into the case that could have been avoided by a wait of several weeks.

When the sore is typical, the physician dogmatic, and the history of infection from a syphilitic source certain, then this is the proper course to pursue; otherwise, a wait for secondary symptoms is to my mind necessary. The primary sore should be cleansed with some antiseptic wash and dusted with some mild powder. Caustics locally applied in this stage undoubtedly do harm. Upon appearance of the secondary symptoms mercury in some form—by inunction, by the mouth, or hypodermically—should be begun, and will cause subsidence of the more aggravating symptoms.

The method to be employed should depend upon the exigency of the case; all syphilitics should not be treated alike, nor is there any hard and fast method for the treatment of syphilis.

When a mucous patch occurs it should be touched repeatedly with tincture of iodine or a solution of silver nitrate. A catarrhal condition of syphilitic origin requires the administration of ferruginous preparations and the cleansing of the nasopharynx with mild alkaline and antiseptic solutions. I have found that when ulcerations exist, an ointment of bismuth and vaseline, locally applied to the nasal cavity, tends to prevent the formation of crusts, and is soothing. When crusts exist, a solution of menthol in olive oil, locally applied, assists greatly in removing them.

Upon the appearance of tertiary symptoms, potassium or sodium iodide is indicated, and should be begun in five or ten grain doses, three times daily, and increased rapidly, depending upon the tolerance of the patient, until the progress of the disease is checked. In some cases mercury should be combined with the iodide, internally or by inunctions. When necrosed bone exists, as soon as the patient is fully under the influence of mercury and the iodide, it should be removed. Mild salines and laxatives are occasionally required to stimulate excretion, and nothing is of more benefit in keeping the skin in condition than frequent baths.

Smoking and the drinking of alcoholic beverages should be denied to a syphilitic patient, except in exceptional cases.

Fresh air and outdoor exercise are as essential to a syphilitic as these agencies are to a consumptive.

Vanderbilt Medical School, Nashville, Tenn.—The vacancy in the Vanderbilt medical faculty, caused by the resignation of Dr. Louis Leroy, who occupied the chairs of Histology, Pathology, and Bacteriology, has been filled by the election of Dr. William Litterer as his successor in all these branches. Dr. Litterer is a native of Nashville. Dr. R. S. Doak, who has been assistant in the school of ophthalmology, has been made adjunct professor of this subject.

THE TREATMENT OF CRUSHING INJURIES INVOLVING ONE ARTICULAR SURFACE OF AN INTERPHALANGEAL JOINT.

By JOHN G. SHELDON, M. D.,

TELLURIDE, COLORADO.

The first cases that came to me with compound crushing injuries involving the interphalangeal joints were treated by amputating the fingers. I can remember distinctly two cases of injury of the second interphalangeal joint of the index finger that were treated by amputating the injured members. On account of the extensive destruction of the articular surfaces of the phalanges, the circulation in the parts, distal to the injury, was sufficient to prevent anæmic necrosis. My reason for amputating in these cases was that I did not believe that a movable joint could be obtained in cases where there was complete destruction of one articular surface of the injured joint.

From observing cases of crushing injury of the joints treated by various methods, I am of the firm opinion that a perfectly movable joint can be obtained in any case in which one articular surface is intact—or nearly so—regardless of the extent of the injury to the other bone entering into the formation of the joint. It is generally known that a movable joint is sometimes obtained after the articular surfaces have been completely resected. In the *American Text Book of Pathology*, page 709, the following statement is made:

"After resection of a joint the ends of the bones may become united by a fibrous or bony tissue; bony resorption and apposition may in time remodel the ends, which become covered with connective tissue and a new joint is produced, the lining of which may even secrete a synovial fluid."

I have never been fortunate enough to secure a freely movable joint after a complete resection; but, in a few cases, I have seen slight joint motion present. My experience with resection of only one articular surface has been quite different. I am now doing some work on the hip joints of cats—to be reported later—and have reasons to believe that a perfectly movable hip joint can be obtained by placing the head of the femur in a newly made acetabular cavity, provided that the head of the femur has not received extensive injury to its articular surface.

I have had five cases of injury to the interphalangeal joints that were treated by completely resecting one articular surface. In all of these cases a movable joint and a useful digit were obtained. The method of treating these cases was as follows:

1. Thorough mechanical cleansing of the parts with sterile water.

2. Resection of the destroyed articular end of the phalanx, followed by shaping the end of the bone to fit—as accurately as possible—the apposed intact articular surface.

3. Closure of the new formed joint by the suturing of ligaments, tendons, and fascia with catgut.

4. Application of splints and a moist aseptic dressing.

In only one case was an attempt made to close the entire skin wound. In this case, we had every reason to believe that the injury to the skin and soft parts was not sufficiently severe to prevent a cleansing incompatible with primary union. In the other four cases, a slight amount of superficial infection occurred.

The reasons for advising this method of treatment, and the objects to be obtained, were these:

1. In most of these cases the skin and subcutaneous tissues are so injured and infiltrated with foreign material that complete disinfection is impossible.

2. The bones and deeper structures are usually not so badly injured as are the soft parts, and they can be rendered practically sterile.

3. If the deep structures are clean and the superficial ones likely to suppurate, a barrier should be placed between them. This is done by closing the joint in the manner described in the foregoing. This method of treatment prevents extensive suppuration in the skin from affecting the bones, provided efficient primary drainage is secured, which is done by not suturing the skin and by the application of a moist dressing.

I shall report briefly the five cases that I have mentioned.

CASE I.—A man, thirty-four years old, was injured by a falling rock striking his hand while he was holding to a flattened iron brace rod. The distal end of the first phalanx of the right index finger was crushed. The articular surface of the other phalanx, entering into the formation of the joint, was practically intact. Although the soft tissues were extensively crushed, the circulation distal to the injury was sufficient to maintain life in the finger. A new joint was made by resecting the end of the injured phalanx, and the skin wound partly closed. Superficial infection occurred, but the bones remained clean. Three weeks later passive motion was advised. Five weeks after the injury the skin wound was healed; and five weeks later the patient had a short but freely movable and useful finger.

CASE II.—A miner, forty-four years old, had the middle finger of his left hand injured by being caught between an iron frame and a moving crank pin. The distal end of the second phalanx was completely crushed, and a small fragment was detached from the articular surface of the last phalanx. The treatment described in Case I was followed, and a similar result was obtained in eleven weeks.

CASE III.—A boy aged eighteen years was struck on the thumb with a wedgeshaped hammer. The distal end of the proximal phalanx of the thumb was completely crushed. The articular surface of the distal phalanx of the thumb was intact. A resection was done, followed by closure of the joint and complete closure of the skin wound. The wound remained clean. In eight weeks the thumb was strong and useful and the new joint freely movable.

CASE IV.—A woman, thirty-four years old, had her third finger crushed by the cogs of a washing machine. The proximal end of the second phalanx was completely crushed. The articular surface of the apposed phalanx was not injured. A resection was done and the skin wound not closed. No infection followed. After about nine weeks, the finger was useful and the joint movable.

CASE V.—A man, twenty-six years old, was injured in the right index finger by a falling rock. Examination showed destruction of the distal end of the second phalanx. Resection was done; the joint cavity was closed, but the skin wound was not sutured. Superficial suppuration occurred. Twelve weeks later the finger was useful and the joint was somewhat—but not freely—movable.

THE RADIANT LIGHT BATH IN THE TREATMENT OF NEUROSES.*

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In a paper before this association, last year, on some clinical indications for the use of the radiant light bath, it was contended that this therapeutic use of electricity was of wider application and superior to many other forms of this agent. Another year's experience, based on the studies of nearly a thousand baths given under my direction, has fully sustained my previous convictions of the value of this therapeutic agent and indicated some possibilities which a larger experience promises to sustain. The apparatus described in my last paper is simply a small room covered with incandescent lights, in which the reflecting power is intensified as far as possible by a lining of tin. All the baths given were followed by showers, douches, and rubbing. These means increased the effect from the action of the light and are to be considered in a study of its power. A hot air or Turkish bath was in operation in an adjacent room during a large part of the year, and patients who used the light bath were allowed their choice of the two, for the purpose of practically detecting any difference which might be recognized. In some instances patients used the hot air bath one day and the radiant light the other. In all cases decided preferences were manifest for the electric light bath, the reason given was the greater exhilaration during the bath and the greater quietness and rest after. In measurements of the pulse, temperature, and tonicity of the arteries, the radiant light bath showed great superiority. The effect on the temperature varied but little, in some instances either rising or falling after the first bath, later remaining about the same. The changes in the pulse rate were more marked in the hot air than in the radiant light bath, usually rising in the former and falling in the latter. The tension of the arteries invariably fell from the action of the light bath, but did not always change with the hot air bath, unless the time of using it was prolonged. No study was made to discriminate between the action of the light or hot air baths, until after the use of showers, douches, and massage and the patient had become quiet and rested. All the persons treated were neurotics, suffering from various forms of psychoses and toxæmias. A marked symptom was noticed in nearly all cases after the bath of exhilaration with a soothing impression following; while, from the hot air bath, many persons complained of exhaustion with headache, which was usually transient. The physiological action of the radiant light bath depends on the heat and chemical rays coming in contact with substances that are resistant to their passage and thus become transformed into heat and chemical energy. The skin is a poor conductor of heat, but transmits light and radiant energy readily. This in the deeper tissues becomes changed into heat. In the hot air bath the heat is slowly carried in by conduction and its effects fall most heavily on the surface. Radiant heat penetrates the tissues more quickly than conductive heat, increasing the sedative activity by its direct influence while conducted heat is only indirectly a sedative. The chemical rays from light stimulate the nervous system and cell energy in both animal and vegetable life. The radiant light bath has two marked actions on the skin and tissues, one of stimulation, and the other a sedative effect. The stimulating action falls first on the sensory centres, then on the vasomotor centres and heat centres, lastly on the secreting centres. The sensory centres are always affected by the action of heat, light, and cold on the skin. The vasomotor centres controlling the constriction and dilatation of the walls of the arteries respond very quickly to surface changes. Light seems to have a special action on the vasodilators of the arteries, stimulating to increased activity and permitting the blood to flow more rapidly to the surface. This takes off the burden of the heart's action and relieves the constriction to the arterial circulation and to the capillaries. The increase in volume and uniformity of the flow of blood with lowered tension make this evident. The sensory centres show a marked change and diminution of nerve irritation and debility. The secretory centres are profoundly affected, and the elimination of fluids is rapid and intense. Oxidation is increased with the increase of elimination. These various sensory centres are often differently affected. The sensory centres in some instances act slowly, and only after the bath has been given many times are they affected; also the heat centres are slow to respond to the light, but later they act quickly. In toxæmias the secretory centres are profoundly stimulated by the light bath, while in neurotics this stimulation may not be noticed for some time. Where marked fibrinous deposits are apparent in the arteries and liver, both secretory and heat centres seem to be very active. The fall of the arterial tension and the uniformity of the pulse and respiration following the action of the light are marked symptoms. The following are some clinical illustrations of the action of the baths:

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* Read at the annual meeting of the American Electrotherapeutic Society, at Atlantic City, September 23, 1903.

CASE I.—An active business man in middle life suffered from fainting and dizzy sensations following excitement and over exertion. The heart was hypertrophied and the arterial tension was high, indicating a fibrinous condition of the arteries. He was given electric light baths daily with hot showers and douches and the static breeze. This treatment was followed by marked recovery.

CASE II.—A modern drinking business man, whose life has been one of great mental strain and worriment, came under my care for asthmatic symptoms associated with sudden depressive heart action. It was called cerebral exhaustion. A course of Turkish baths had failed to bring relief, and he complained of dizziness with fluttering heart sensations, for which various forms of alcohol were given. The alcohol was withdrawn and the patient put on an active saline treatment, with the radiant light bath, followed by showers and douches and constant rest in a reclining position. The bath produced intense prolonged sudorific action with a high surface temperature. In some instances this temperature went up three or four degrees, but quickly dropped from the action of showers and douches. The pulse rate declined with each bath and the fluttering heart symptoms disappeared. The heat centres seemed to be very greatly disturbed, and in the morning he complained of chills and cold and was taken to the light bath, remaining a few moments and being taken out before perspiration began. The regular bath was given in the evening, after which he slept quietly. There was evidently toxæmia in this case, indicated by the strong acid odors from the perspiration during the first week of treatment. A static breeze was given every day in connection with the bath. He made a good recovery.

Case III—A lawyer, thirty-five years of age, had used spirits for insomnia and overwork for many years. He had been under the care of many physicians, and had taken electrical treatment with a variety of drugs, but had gradually grown worse. Spirits and drugs were taken alternately for years. After some preliminary treatment by salines and the withdrawal of spirits he began the use of the radiant light bath. The perspiration was not very intense at first, but the action of the heart was increased. The temperature dropped from one to two degrees. On each succeeding bath the pulse rate was raised from ten to fifteen beats and the temperature lowered. At the end of a week all drugs were dropped and the bath was given daily. The rest after the bath was very refreshing and increased in duration, until finally he could sleep about eight to nine hours. The insomnia passed away and the restoration was rapid and complete.

Case IV.—A physician, fifty years of age, who was severely shocked from an electrical current passing through his office where he was reclining five years before. From this time on he had drunk spirits steadily to quiet his nervous system and to promote rest at night. He had an intense fear and dread of electricity in all forms, and had strong delusions that he would be injured by an electrical current in some unknown way. For some time after coming to our hospital he refused to take radiant light baths, using the hot air bath and receiving the shower and massage afterward. Perspiration was slow and but little change in the temperature followed these baths. He finally consented to take a radiant light bath, remaining in only three or four minutes at first, just long enough to cause slight perspiration. It was found that his skin was oversensitive to the action of light, and intense perspiration broke out in four or five minutes after admission with a high surface temperature. The shower afterwards reduced his temperature. The heart's action was raised, but fell quickly from the action of showers to normal. A marked sedative effect followed these baths with the disappearance of the electrical delusion and a rapid improvement mentally. A persistent dyspepsia which had followed him for many years disappeared and he recovered and is now at work again in his profession.

Case V.—A medical man, neurotic and gourmand, who had been alternately a drug taker and spirit user for many years, then for a time abandoning them all and living for months a strict abstainer. He was credulous and had great confidence in drugs and used freely many prescriptions, both proprietary and other combinations. He had taken electrical treatment and had been an intimate of two sanitariums without receiving much benefit. On admission he was using paraldehyde four times a day and was considered a chronic inebriate. All drugs were withdrawn, and he was given the electrical bath twice a day, remaining in the cabinet until perspiration was very profuse, then being taken out and showered and put to bed. The temperature was invariably lowered, the pulse was raised by the bath, and the tonicity of the arteries was greatly diminished. Later, the first morning bath was confined to two or three minutes, while the evening bath continued ten or twelve minutes. The surface temperature of the body was 105° and 106° F. after leaving the cabinet, but rapidly went down to normal after the showers. The tonicity of the arteries diminished, and both the bowels and kidneys acted quite freely after the evening bath. Later, the static breeze was given, before the bath and sometimes after. The nervousness disappeared and nutrition improved and restoration followed.

These cases may be duplicated covering many pages; they would all show some general conditions for which radiant light bath seems to have a marked action. There are two forms of neuroses which appear to be especially benefited by this form of bath. One is the toxæmias and the other the palsies. In the first class may be included the various influenzas, and digestive troubles, indicated by irritation, depression, headache, irregular heart's action, and other forms of obscure neuroses. The action of the radiant light, followed by hot and cold water application, seemed particularly valuable in these cases. The excessive sudorific action draining the water and the salts from the blood and carrying with it the waste products, is often followed by a profound sedative influence which resembles that from opium. Dr. Kellogg believes that the light changed to heat in the deeper tissues increases the perspiratory action and excessive drainage of the toxæmias of the system. Dr. Rockwell ascribes the sedative action following the perspiration to the sudden and intense drainage of the inflammatory products of the system through the skin to the surface. Very marked effects have been noted in the diminution of albumin in nephritis, and also in the relief of the symptoms of prostration. In one case under my care urea and sugar disappeared from the urine after a few baths. In all cases a great improvement took place in the heart's action, as proved by the sphygmographic tracing taken before and after the bath. Several persons in whom symptoms of organic changes of the heart were prominent have been greatly relieved by the use of the baths. Dr. Howell noticed after the radiant light bath a peculiar heart murmur not recognized before. In pleuritic effusion which had existed for some time great improvement followed the use of the light bath with the shower following. In the second form of neuroses, which I have termed general palsies, the baths seem to have an equally good effect. Many of these nerve disturbances may be described by the term neurasthenias, cerebroasthenias, and the multiple palsies and defects of motor and sensory centres where nerve vigor, force, and energy are disturbed and depressed below the normal, also in many of the disturbances following deranged cerebral circulation with defective nutrition. Dr. Kellogg has fully recognized this condition, and believes that radiant light penetrating deeply into the tissues changes into heat and has a special power to promote and give new energy to dormant cell activity. The results obtained in some instances seemed very clearly explained by this theory. Evidently, the increased oxidizations of the blood and the disappearance of the toxic agents by drainage through the skin promote this, and are prominent factors in relieving the exhaustive and defective energies. Many of the persons coming under my care are distinctly cases of palsies, the causes of which vary widely. The radiant light bath, with massage and static breeze later, has proved a most powerful therapeutic agent, while its effects vary in different persons, probably owing to unknown causes; although the symptomatology is much the same, the results have been uniform and more satisfactory than from any other remedial agents I have used. In one instance the sudorific action was very slight until douches and massage had been given; then perspiration broke out in great profuseness. This peculiar condition was followed by prolonged and refreshing sleep; apparently the heat and nerve energy had accumulated and only broke out from the action of some peculiar causes. The temperature and pulse did not change much. In the second anomalous case perspiration was very slight, and although the patient remained in the bath for fifteen minutes, there was no change, except a rapid rise in surface temperature. In this case the kidneys acted with great intensity for an hour after. In a few instances the point of elimination was highest in six or seven minutes after admission to the bath and then began to decline. In one instance the effect of the bath in causing profuse perspiration stopped in a few moments, and reappeared three or four times during the next twenty-four hours, between the baths. This was checked by showers and eventually passed away. Extreme perspiration in different parts of the body was frequent, but usually changed after a few baths. In all cases the nutrition and appetite improved after the baths had been used for several days. The vasomotor facial palsies so common among spirit drinkers were greatly lessened, and in some instances practically cured. In several instances external perspiration was confined to the surface of the head and face, and in others it appeared most profusely in the extremities. In these cases prolonged showers and massage were given after and before the bath, according to the circumstances. Mechanical massage and muscular vibration were also given in these anomalous cases, and head breezes from the static machine with good results. Before the bath the patient drank frequently large quantities of salines and carbonated waters, and in certain drug takers saline waters were given for their cathartic and diuretic action before the bath was used. Experience seemed to encourage these and similar means for the purpose of increasing the tonic effect of the radiant light bath. In addition, the power of suggestion was made a prominent factor in treatment, and efforts were used to increase the confidence of the patient in the value of this means, by asserting what its effects would be and by building up expectations as far as possible to sustain such assertions. Whenever a patient manifested credulity concerning the effects of the bath all measures were used, such as the static breeze, salines before and after, with different douches and massage to keep this credulity up to a certain point. The conclusion was unmistakeable that the electric radiant light bath, given in connection with these other means mentioned, is practically one of the most powerful therapeutic agents which can be used. There are many reasons for believing that the various currents and x rays now used for such a great variety of diseased conditions could be immensely improved by the addition of this form of bath. In all forms of neurotic disease it has clearly a specific value in connection with other methods and means along this line. A physician who had a patient in his family suffering from lupus has arranged an electric light bath, and is using it daily in connection with the x rays and other methods. In his opinion the action of the x ray with this bath is intensified and the vigor of the body is increased with the most promising effects.

From my limited experience with the effects of the bath on general conditions of debility and disease I am fully sustained in urging that in all cases where electricity is used, it be supplemented by the radiant light bath with showers and massage. It is quite certain that the palsies would be immensely benefited by measures of this kind in conjunction with the various electric currents, when given at stated intervals. One of my patients who had a very thorough electrical treatment from an eminent specialist relapsed, and came under my care for painful insomnia, for which he used many narcotic drugs. The electric light bath, given with douches before and after, completely changed his condition, and he is now practically restored and is using the bath every week with great satisfaction. This bath is not urged as a new and specific remedy, but only as an adjunct and most practical form of electric energy for therapeutics when used in conjunction with other measures.

Some of the conclusions which I wish to make prominent may be summarized as follows:

1. The radiant light penetrating to the deeper tissues of the body is turned into heat or transformed into nerve energy more positively than that of heat from hot air.
2. The clinical effects of the bath prove its power as the eliminating agent and a corrector of neurotic, nutrient and capillary disturbance.
3. In neurotic diseases its action in conjunction with other measures is far superior to any of these means when used alone.
4. The evidence so far points unmistakably to the possibilities that when used in connection with other electrotherapeutic measures it may come into general use and constitute a real advance in the progress of neurological therapeutics.

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Therapeutical Notes.

Acute Rheumatism.—A. Martinet, in *Nouveaux Remèdes,* for June 8, 1904, states that a combination of antipyrine and sodium salicylate is remarkably efficacious in this disease. On account of the pasty mass they form when mixed, it is impossible to dispense them in capsules, and moreover the combination is irritating to the stomach. Sodium bicarbonate should always be added:

℞	Antipyrine	5 grammes (75 grains);
	Sodium bicarbonate	6 grammes (90 grains);
	Sodium salicylate	10 grammes ($^{1}/_{3}$ ounce);
	Distilled water	10 grammes ($^{1}/_{3}$ ounce);
	Rum	30 grammes (1 ounce);
	Syrup of bitter orange peel	150 grammes (5 ounces).

M. A tablespoonful as required.

Drugs in the Diseases of Children.—Tresilian, in the *Medical Press* for May 18, 1904, gives a list of the drugs that he has found to be most useful in treating the diseases of children. He begins by stating that alcohol and cod liver oil are more properly foods than drugs. Alcohol is most valuable in the treatment of pneumonia, zymotic diarrhœa, and severe chorea. It must not be pushed too far, as it generally is by parents, who do not recognize the symptoms of overdose; it must be given in regular doses and stopped as soon as possible.

Antimony is the most valuable of all drugs in the treatment of acute bronchial and pulmonary disease, acute lobar pneumonia, acute laryngitis and bronchitis, and early stages of catarrhal pneumonia, and children bear it well. It may be combined with aconite or ammonium acetate. It is also useful in acute eczema.

Arsenic.—The method of curing chorea in a week with large doses of Fowler's solution is, he thinks, to be condemned. Smaller doses, spread over a larger interval and gradually increased, and preferable. Arsenic is also useful in asthma and the lymphadenomatous and leucæmic conditions of children.

Belladonna is very valuable in acute catarrhal or bronchopneumonia, its effects in stopping the œdematous secretion being sometimes very striking. It is also useful sometimes in pure neurotic enuresis, and it may be pushed and combined with quinine, strychnine, or bromides. In whooping cough as well as in enuresis it, however, frequently fails. It is valuable as an external application in appendicitis and in the non-tuberculous forms of peritonitis.

Mercury.—The days of universal use of gray powder and calomel are declining. Jenner's dictum, "When you see a sick child, don't think only of gray powder," was a wise one. Small doses of gray powder are very useful in the treatment of digestive troubles of bottle fed infants. The inunction of mercury is most valuable for producing rapid effects in the treatment of congenital syphilis, especially interstitial keratitis and labyrinthine disease, where the mischief must be checked as soon as possible. In these conditions the action of gray powder and the solution of the perchloride are much too slow. Mercurial inunction is also useful in tuberculous peritonitis. The external and internal administration of mercury in combination is sometimes the best in non-tuberculous forms of meningitis, which are generally posterior basal, but they frequently fail to produce any effect whatever.

Salicylates do not exert the same depressing effects in children that they do in adults, either upon the nervous or circulatory systems, and they do not affect the labyrinth in the same way. They have a tendency, however, to cause hæmaturia. Not only in acute rheumatism and acute erythematous symptoms, but in chronic mucous catarrh of the intestines, with papular urticaria in bladder affections, such as cystitis and uric-acidæmia, in headaches, in the rheumatic forms of amygdalitis, in acute summer diarrhœa, and, combined with belladonna, in appendicitis, they sometimes give most striking results. The salicylate of bismuth is a most valuable drug for children; it does not cause hæmaturia, and is most useful in diarrhœa and colic.

Antipyrine and phenacetin are useful in acute pain, such as ear ache, in painful dentition, night terrors, and laryngismus.

Opium.—Opium in small doses in the form of nepenthe or Dover's powder can be used with safety in colic, appendicitis, intussusception, and acute diarrhœa.

Chloral is the best hypnotic for children, and is useful in tetany, convulsions, and allied conditions.

Purgatives.—For young infants those which will be found of most service are manna, small glycerin suppositories or injections, the stick of soap dipped in glycerin; and for older children pilules of aloin and belladonna, cascara bonbons, Rubinat and Franz Joseph waters, and so on.

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ROSE'S ABDOMINAL BELT.

In our issue for May 11, 1901, Dr. Achilles Rose first described his plaster abdominal belt, in an article entitled Atonia Gastrica and a New Method of Treatment. The device seems to have met with much approval in Germany lately. In particular, Clemm, of Darmstadt, has made extensive use of it, as is shown in his articles in the *Therapeutische Monatshefte* for February, 1903, and *Therapie der Gegenwart* for April, 1904. Comparing Rose's appliance with two methods of abdominal strapping, Rosewater's and Schmitz's—the one described in a publication almost simultaneous with Rose's, the other at a somewhat later period—he remarks that our contributor's device is cheaper, simpler, and more trustworthy in the treatment of abdominal relaxation and ptosis. It seems that the belt has come into extensive use in Germany since Clemm's first article regarding it was published.

Clemm, as well as Rose, favors some form of zinc rubber plaster. He does not, however, like Rose, apply it spread on light material, requiring the support of plaster spread on strong canvas, but has it spread on canvas or moleskin (the latter suggested by R. C. Kemp). Clemm prefers moleskin because it is very strong and at the same time quite soft and does not fray at the edges like canvas. In pronounced cases of pendulous abdomen or of floating kidney he, like Rose, supports the belt by means of strong material applied over it. In all cases he applies also, drawing it very tight, a mull bandage over the plaster belt, in order to protect the underclothing against any little protrusion of the plaster mass. Another precaution that he takes to guard against this little annoyance is that of touching the margin of the plaster with wadding saturated with oil of turpentine. Clemm confirms Rose's statements that the belt may with comfort be worn continuously for six weeks and that the patients who are wearing it may take their accustomed baths.

THE LINOTYPE MACHINE AS A SOURCE OF POISONING.

The constant handling of type by compositors under the old practice of hand setting was a not infrequent source of lead poisoning. The machine methods of recent years have largely done away with this cause of deteriorated health, but it appears that the emanations from the molten metal used in the operation of the linotype machine may occasionally give rise to decided symptoms of lead and antimony poisoning. An instance in point is recorded by Dr. Leslie Roberts, of Liverpool, in the July number of the *British Journal of Dermatology*.

A man, twenty-nine years old, worked steadily for three years and a half on the machine, and then began to suffer with manifestations which, though vague, compelled him to become irregular at his work and finally to give it up altogether, for among them was such tenderness of the fingers as to make him lag behind his associates. There was the chronic constipation so commonly met with in cases of lead poisoning, but not the colic, and there was no vomiting or other evidence of intestinal disturbance, but there was muscular tremor of the upper limbs, with tenderness on pressure over the palms and soles. The diagnosis seems to have been made by Dr. Roberts on the strength of the cutaneous manifestations, which were apparently confined to the hands. They were damp with excessive perspiration, and the palms and fingers were suffused with a faint pink color. There was no discoloration of the horny epidermis, and there was no break in its continuity. Over the thenar and hypothenar there were scattered minute smooth, pale, lichenoid papules, so little noticeable that they had to be looked for carefully.

"From the fact," says Dr. Roberts, "that the microscopical changes of the skin were identical with those produced by a metal of the nitrogen or arsenical group, and not those produced by lead, we may justly conclude that the man was suffering from double metallic poisoning, namely, from antimony and lead. The antimony seems to have modified the symptoms of plumbism, for it is a striking fact that the patient had never suffered from colic during the four years that he was inhaling the fumes of lead. The symptoms which I think were attributable to the lead were the tremors and the constipation."

The author remarks that in this case there is a lesson for the printers who use the linotype machine—that air shafts and ventilators be fixed immediately above the trough containing the molten metal, for the purpose of carrying off its fumes. We are glad to be able to say that such precautions are taken in many of the printing establishments of the United States, though not, we regret to have to add, in all of them.

URINE AS A DISSEMINATOR OF TYPHOID FEVER.

For several years it has been known that in a varying proportion of cases of typhoid fever the germ of the disease is to be found in the urine, but that knowledge does not seem to have given rise to the practical precautions against contamination of drinking water by typhoid urine that have been taken against its pollution with fæcal matter. Perhaps this has been due to our failure to realize the import or even the fact of the persistence of the bacillus in the urine long after the beginning of convalescence, extending, indeed, well into the period during which the convalescent is going about and has begun to resume his ordinary course of life.

We may look to see this omission on the part of sanitarians corrected to a great degree in consequence of certain important observations by Captain E. Blake Knox, published in the July number of the *Journal of the Royal Army Medical Corps.* Captain Knox has not contented himself with summarizing the findings of those who have preceded him in the consideration of the subject, or with commenting on them and drawing deductions from them; he has gone over the experimental field for himself, and this he has done very thoroughly and systematically, following technical methods that he is at considerable pains to describe so minutely that subsequent investigators will have little difficulty in their researches. His own investigation has involved the gross, microscopical, and bacteriological examination of the urine in a hundred cases of typhoid fever. When we remember that repeated examinations were required in each case, we can appreciate the magnitude of the work.

Captain Knox finds that there are certain gross characters of the urine and certain peculiarities of its excretion that render it "suspicious," though they do not suffice to distinguish the bacilluria due to the *Bacillus typhosus* from that occasioned by the *Bacillus coli communis.* He says that the occurrence of a sudden and abundant excretion of urine of a pale yellow or straw yellow color, with an opalescent shimmer and showing a distinct macroscopic turbidity, has been found by him in all instances to indicate bacilluria.

Regarding it as practically hopeless to attempt to so impress upon the ordinary soldier affected with the bacilluria of typhoid fever the danger to which he may expose his comrades by random urination that he will refrain from that performance, Captain Knox has resorted to the administration of a urinary antiseptic for the purpose of killing the bacilli in the urine, and he has found that this expedient caused the bacilluria to disappear within a few days in the great majority of instances. It is obvious that in civil life we cannot afford to neglect the precautions indicated by these observations as called for in military practice.

TRAUMATISM IN THE ÆTIOLOGY OF SARCOMA OF THE BONES.

It must be admitted that at present little is known regarding the ætiology of sarcomata of the bones. In many cases the patient will attribute the trouble to a traumatism, especially when the neoplasm is seated in one of the long bones. If one should assume that trauma was the true ætiological factor in many cases, this theory could only be applied to those instances where the neoplasm was localized, because it is evident that this could not be held in cases of primary multiple sarcoma of the skeleton. It would certainly be quite difficult to fix upon traumatism as an ætiological factor in the latter class of cases, and it is much more likely that some anomaly of development or a general affection of the bones is the cause. In support of the first theory, the analogy between multiple enchondromata and exostoses in young subjects is evident, while in the latter hypothesis the analogy appears sometimes evident regarding multiple sarcomata of the bones and pernicious anæmia and leucæmia.

Traumatism, in the general conception of the word, is the occasional cause of these neoplasms, and if one consults the various authorities as to the probable cause of the development of both malignant and non-malignant neoplasms, it will at once be seen that the most frequent ætiological factor given is trauma. Ziegler collected 499 cases of malignant growths, with the following results: In 328 cases of carcinoma, 55, or 14 per cent., were considered as due to trauma, while in 92 cases, or 30.5 per cent., a chronic irritation was believed to be the cause of development. In 171 cases of sarcoma, 35 were thought to have a traumatic origin, and in 92 of them some form of chronic irritation was present. Combining the cases of carcinoma and sarcoma originating from some form of chronic irritation, we find that they amount to 20.5 per cent. It is, however, doubtful whether any real value can be attributed to these figures if the customary inaccuracy of the statement of the patients is taken into consideration.

It is a generally admitted fact that sarcomata frequently arise in congenital cutaneous defects, such as pigmented nævi and warts, and this circumstance speaks decidedly in favor of a congenital disposition toward malignant changes. It is evident that the development of sarcomatous tissue may only arise at a late period in life, and that at times a cause such as a blow or an injury to some existing congenital defect is frequently noted in the history of the case, but it should also be recalled to mind that in a large number no such history is obtained.

The connection between sarcoma and traumatism is, nevertheless, such a frequent one that it should be given more study. In some instances the injury leaves no trace, but after a variable length of time the patient discovers a slowly growing tumor at the site of the traumatism, or, on the other hand, pain may first appear and later the neoplasm make its presence evident.

In other instances both pain and tumor appear simultaneously, while the neoplasm continues to develop, but occasionally it will decrease in size under the influence of some treatment, only to take on a rapid development at a later date. In all cases giving a history of trauma, the action of the latter on the occurrence of the neoplasm cannot be denied with any degree of certainty, for many times the sequence is extremely striking.

But, entirely apart from the fact that with a traumatism one should assume a particular inherent predisposition of the individual, which is as yet an unknown factor to us, one can certainly explain the striking frequency of the pretended traumatic origin of sarcoma of the long bones in another manner. In the first place, the long bones are more frequently exposed to injury than the others are, and the patients will, as a matter of course, look upon the former injury as the cause of the tumor. On the other hand, it is a well known fact that traumatism may greatly accelerate the growth of sarcoma, either temporarily or permanently. The greater rapidity of development will, in most instances, increase the suffering, and it therefore can readily happen that an injury simply acts by causing an increased development of the neoplasm; for this reason pain becomes more intense in a tumor which was already present, although the patient's attention had not been called to it until suffering occurred. CHARLES GREENE CUMSTON.

A NEW JOURNAL OF UROLOGY.

It is announced that in October there will be issued the first number of the *American Journal of Urology,* a monthly, which is to be the official organ of the American Urological Association, to be edited by Dr. Henry G. Spooner, of New York, and published by the Grafton Press. It seems to us that there is a fair field for such a journal, and the auspices under which this one is to appear make it reasonably certain of proving satisfactory to the profession.

THE VENTILATION OF PUBLIC PLACES.

There is probably no public sanitary matter that needs more pressing attention in this country than the ventilation of public places, and more especially of travelling cars of all kinds. It is satisfactory to learn that the local boards of health of New York, Boston, Chicago, St. Louis, Baltimore, Cincinnati, Cleveland and other large cities have taken the matter seriously in hand, and that their efforts are being praiseworthily seconded by the ever active surgeon general of the Public Health and Marine Hospital Service. We may now look forward with considerable confidence to some practical reform in this matter.

WHAT IS THE PHYSICAL STATUS OF JAPANESE WOMEN?

It is reported that Dean Shozo Azo, of the Japanese Women's University of Tokyo, in a recent address in Chicago, stated that his fellow countrymen had learned that a weak and sickly woman must be an object of misfortune, and that it was his purpose to learn the methods employed here to develop our superb American women.

On the other hand, admirers of the *jiu-jitsu* are never tired of telling us that the Japanese women are the strongest and most symmetrical in the world. Probably the truth lies in the novel impression produced on the male visitor's mind by the female of a strange civilization. We have not noted any panegyrics on the women of one country by those of another.

A USEFUL LIFE?

A Denver gentleman, aged sixty-four years, we are informed, has walked over 14,000 miles since August, 1901, thus warding off pulmonary consumption, with which he was threatened, and gaining forty-two pounds in weight. This pedestrian has received money, food, and clothing contributed by casual charitable or amazed acquaintances. Far be it from us to say that our hero's performance is not a superb object lesson as to the value of open air life in tuberculous disease, but it does seem as if he might have varied with advantage his somewhat monotonous methods by occasionally sawing wood, mowing or reaping, doing chores around a short handed barn, or otherwise giving more or less for value received in other ways than by merely reciting his possibly estimable autobiography to country householders. His system lends itself regrettably to the interpretation of being hardly more than an ingenious variant of the yarn of the ordinary tramp (*hobo communis*).

CENTIGRAMMES OR GRAINS?

A case is reported of the death of an infant from the alleged error of a druggist in dispensing a prescription calling for 3 centigrammes of "pepsol" with three grains of that preparation. The prescription appears to have called for "! ! .03 ! !" of pepsol. The first druggist to whom it was tendered, thinking from the peculiar way in which the prescription was written that it might be some private mark of the physician's, sent it to be compounded by the druggist whose name appeared on the physician's blank. There is a custom followed by some physicians of putting an exclamation point or other mark to any ingredient of a prescription that is unusual, in dose or otherwise, to call the dispenser's attention to the fact that it is not an inadvertence, but what is actually intended by the prescriber. It is possible that the exclamation points in this case were intended to draw attention to the fact that the metric notation was being used.

It seems to us that the growing use of the metric system side by side with the old apothecaries' measure in prescribing is apt, during the transition period, to lead to many mistakes, and we would strongly counsel the disuse of that metric form which relies solely on the point and the number of figures, and recommend the use of the full terms, "grammes," "centigrammes," etc., in prescriptions, or at least of such abbreviations as are unmistakable—e. g., "grms" (in no case "gr.," for either gramme or grain) "cgms," "mgms.," etc. This would tend greatly to minimize the liability to error.

Obituary.

EDWARD W. LAMBERT, M. D.,

OF NEW YORK.

Though for the greater portion of his professional life Dr. Lambert had devoted himself to the medical side of life insurance, he never abated his interest in professional matters. He was widely known among the physicians of the country, and was highly esteemed both for his attainments and for his geniality. Everybody who knew him felt that it was always a pleasure to meet him. Although seventy-three years old at the time of his death, he had preserved his faculties and his physical powers almost to the very last.

Dr. Lambert was a native of Boston, but he came to New York early in life and graduated in medicine at the College of Physicians and Surgeons, in the class of 1857. He then served for a full term on the house staff of Bellevue Hospital. Soon after that he became the chief medical officer of the Equitable Life Assurance Society, taking a position in which he continued for the remainder of his life. He was among the first to recognize the importance of the medical element in the business of life insurance, and his long and honorable career did much to impress upon his professional brethren the dignity and responsibility of insurance work. By his death we have lost an important member of the New York profession.

News Items.

Society Meetings for the Coming Week:

TUESDAY, *July 26th.*—Richmond, Va., Academy of Medicine and Surgery; New York Medical Union (private).

WEDNESDAY, *July 27th.*—New York Academy of Medicine (Section in Laryngology and Rhinology); American Microscopical Society of the City of New York; Philadelphia County Medical Society; New York Dermatological Society (private); Auburn, N. Y., City Medical Association; Berkshire, Mass., District Medical Society (Pittsfield).

THURSDAY, *July 28th.*—New York Academy of Medicine (Section in Obstetrics and Gynæcology); New York Orthopædic Society; Pathological Society of Philadelphia; New York Celtic Medical Society.

NEW YORK.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending July 16, 1904:

	Week end'g July 16.		Week end'g July 9.	
	CASES.	DEATHS.	CASES.	DEATHS.
Measles	269	13	261	15
Diphtheria and croup	309	41	297	29
Scarlet fever	89	7	95	13
Smallpox	..	..	1	..
Chickenpox	16	..	29	..
Tuberculosis	380	134	359	136
Typhoid fever	60	10	39	9
Cerebrospinal meningitis	..	23	..	34
Totals	1.123	228	1,081	236

Medicolegal Journal.—For the seventh time Dr. Webb J. Kelly has been elected associate editor of the *Medicolegal Journal*, which is published in this city.

A Thief in Brooklyn.—A clever young thief, who varies his story according to circumstances, has been victimizing Brooklyn physicians lately. He displays considerable taste in clocks and bronzes, but will take watches, tobacco pouches, or any convenient article.

Another Thief Specializing Physicians.—While Dr. John Harrigan, formerly a member of the board of education, was at dinner in the basement of his house at 401 Clinton Street, on July 18th, a young man, who said he wanted to see the doctor on professional business, was admitted to the office. Dr. Harrigan found his gold watch and chain, valued at $100, gone along with the patient when he went upstairs. The watch has a picture of a boy on the inside of the case. A five cent piece is attached to the chain.

Bed Endowed in Brooklyn by a Naval Command.—The members of Gloucester Naval Command, No. 17, Spanish War Veterans, decided at their last meeting, held in Borough Hall, to endow a bed in the Brooklyn City Hospital, costing $5,000, for the benefit of all honorably discharged sailors and marines and members of the command, and to create a fund for the relief of the widows and orphans of sailors who served in the navy from the date of the beginning of the Spanish-American war up to the present time. This is a long felt want, and is appreciated by every enlisted naval man, there being no hospital or home for the honorably discharged sailors, except city institutions for the relief of the poor. The Reverend John P. Chidwick, who was chaplain of the U. S. S. *Maine* at the time she was destroyed in Havana harbor, has been elected treasurer of the fund.

A New Hospital for Mamaroneck.—William D. Palmer, of Mamaroneck, who died a few weeks ago, provided in his will for a hospital to be established there. He set aside $20,000 as a fund for the support of his wife, and provided that after her death the principal was to be paid to a corporate body, which he directs his executors to incorporate, to erect and maintain a hospital for Mamaroneck and Larchmont. The institution is to be known as the Palmer Hospital. At present patients are sent from these towns to the New Rochelle Hospital.

Report of the German Hospital, Brooklyn.—The monthly meeting of the board of trustees of the German Hospital Society was held in the board room at the hospital building on July 11th, with the president, Frederick Heitmann, in the chair. Dr. Edmonds was appointed ambulance surgeon and Dr. John Bauer accepted as a member of the house staff. A donation of $200 was received on May 6th from a woman who does not wish to mention her name. The board of trustees passed a vote of thanks to the unknown donor. It was resolved to have the driveway in the yard of the hospital grounds paved with granite blocks. The president informed the members that the employees of the hospital are being instructed in a fire drill and that all the fire fighting apparatus is in good condition. The report of the superintendent, Louis Pauly, shows: Present, June 1st, 75 patients; admitted during the month, 150; total under treatment, 223; left during the month cured, 116; improved, 13; unimproved, 1; treatment refused, 6; transfer to Eastern District Hospital, 5; died, 7; remaining under treatment, 75; 49 non-paying patients received 563 days' care; 141 paying patients received 1,547 days' care; 33 patients received treatment only. The ambulance was in service 92 times.

PHILADELPHIA.

Philadelphia Health Report.—*The Report on Contagious Diseases, compared with that of the previous week, is as follows:*

	Week end'g July 16.		Week end'g July 9.	
	CASES.	DEATHS.	CASES.	DEATHS.
Smallpox	1	..	1	..
Diphtheria	35	7	28	5
Scarlet fever	36	2	42	2
Typhoid fever	68	10	56	7
Consumption	..	64	..	47
Cerebrospinal fever	..	..	..	..
Totals	140	83	127	61

Heat Cases.—On July 12th, the thermometer reached 88° in Philadelphia. Five persons were overcome by the heat and were treated in the different hospitals.

Pennsylvania State Dental Society.—The thirtieth annual meeting of the Pennsylvania State Dental Society was held at Wilkes-Barre during the week of July 12th. The annual address was delivered by the president, Dr. Jameson, of Philadelphia.

Personal.—Dr. P. S. Donellan, Dr. J. G. Fling, Dr. Julia P. Hârton, and Dr. W. L. Rodman sailed for Europe on the *Haverford*, July 10th.

Bequests to Charitable Institutions.—The German Protestant Home for the Aged received a bequest of one hundred dollars by the will of Eliza Hilderbrand. The Methodist Hospital will receive about seven hundred dollars by the will of Charles S. C. Riday, who died recently at Dover, Del.

Colored Nurse Graduates.—Diplomas were awarded at the recent commencement exercises of the colored class of the Philadelphia School for Nurses, to the following colored graduates: Mabel A. Bailey, Ida I. Bowen, Mary Edelweiss Clarke, Carrie Evans, Lydia L. Fisher, Bessie E. Manges, Emily J. Hoagland, Floy G. Lucas, Mary Statesman, Pauline Stewart, Phyllis Watson, Dolly Williams.

The German Hospital.—Plans have been completed for extensive alterations in and additions to the group of buildings forming a part of the German Hospital, and situated at Corinthian and Girard Avenues. A two story and basement addition, 29.6 by 56 feet, to be built of cut stone, is provided for. The kitchen building and nurses' and help's quarters will be practically remodeled. The nurses' and doctors' dining rooms will also undergo considerable alterations.

Obituary Notes.—Dr. Willard P. Derickson, a graduate of the Jefferson Medical College, died of meningitis at his home in Wilmington, Del., July 11th. The Reverend Thomas L. Gulick, assistant superintendent of the Eliza Cathcart Home for Incurables and the Richardson Home for Convalescents of the Presbyterian Hospital, located at Devon, Pa., died on June 15th, at Kijabe Station of the African Inland Mission, British East Africa.

Bequests to the Germantown Hospital.—The Germantown Hospital has just received from Anna T. Jeanes the absolute gift of a handsome residence in Locust Avenue, which will be rented, and the income devoted to the general hospital uses. Mrs. John D. McIlhenny has given the institution $2,500 for the purpose of erecting a pathological and bacteriological laboratory. The gift is in memory of Frances Plumer McIlhenny, the infant daughter of the donor.

The Use of Preservatives in Food.—The activities of the State Dairy and Food Commission in prosecuting the venders of milk containing preservatives, milk below standard, and meats containing preservatives continue. The board of health of the city will cooperate with the State commission, and efforts will be made to have the questions involved settled finally. It is reported that the butchers are to make an organized effort to counteract the efforts of the State commission. They affirm that the use of modern preservatives is not only harmless, but, on the contrary, of decided benefit. It is also reported that the Governor is backing the department of agriculture of the State in its work, and that a bill will be introduced into the legislature next January, which will comprehensively cover the conditions of the case.

Changes at the University of Pennsylvania.—With the beginning of the academic year, in September, the old medical hall of the University of Pennsylvania will be almost abandoned by the medical department of that institution. All the didactic and laboratory work in pathology, pharmacology, and physiology, together with the lectures on the practice of medicine, dermatology, dietetics, otology, ophthalmology, and laryngology will be given in the new laboratory building, which was dedicated on June 10th. The didactic and laboratory work in chemistry and in physiological chemistry will be given in the old medical laboratory building. All the work in anatomy, except dissecting, will be given in the old medical hall, as well as the didactic lectures in surgery. The rooms in the old medical hall not used for the teaching in these two subjects will be given to the school of finance and economy of the university, and the building will be renamed Logan Hall, after an early trustee of the university.

GENERAL

Statement of Mortality in Chicago, Ill., for the Week Ending July 16, 1904, compared with the preceding week and with the corresponding week of 1903. Death rates computed on United States Census Bureau's estimated mid-year populations of 1,932,315 for 1904 and of 1,873,880 for 1903:

	July 16, 1904.	July 9, 1904.	July 18, 1903.
Total deaths—All causes	416	395	519
Annual death rate per 1,000	11.25	10.68	14.43
By sexes—			
Males	243	236	309
Females	173	159	210
By ages—			
Under 1 year	84	64	111
Between 1 and 5 years	31	20	58
Over 60 years	81	73	76
Important causes of death—			
Acute intestinal diseases	53	31	79
Apoplexy	12	13	12
Bright's disease	34	37	26
Bronchitis	4	7	10
Consumption	44	68	53
Cancer	17	19	20
Convulsions	7	8	8
Diphtheria	6	4	9
Heart diseases	34	37	35
Measles	2	1	5
Nervous diseases	24	18	37
Pneumonia	25	33	39
Scarlet fever	1	1	4
Suicide	13	5	16
Typhoid fever	4	4	5
Violence (other than suicide)	30	30	39
Whooping cough	3	2	5
All other causes	*103	76	111

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* Including six deaths from tetanus, of which five were due to injuries from toy pistols and fireworks.

Harrison County Hospital, Clarksburg, W. Va.—Dr. Wehner has resigned his position as superintendent of this institution, and has been succeeded by Dr. J. Wilson, of Baltimore.

A Statue of Pasteur at Paris was unveiled on July 16th in the presence of the president, the cabinet ministers, foreign ambassadors, and representatives of the medical profession of Europe and America.

Examiners in Midwifery, Rochester, N. Y.—The mayor of Rochester on July 11th appointed Dr. W. S. Rambo and Dr. Nathan W. Soble to be examiners in midwifery. The appointments are for terms of three years from date.

New Jersey State Board of Medical Examiners.—The State Board of Medical Examiners of New Jersey have elected the following officers: President, Dr. William H. Shipps, of Bordentown; secretary, Dr. E. L. B. Godfrey, of Camden; treasurer, Dr. Charles A. Groves.

The Ontario County Medical Society, at its annual meeting in Canandaigua, N. Y., on July 12th, elected the following officers: President, Dr. G. W. Sargent, of Seneca Castle; vice-president, Dr. William B. Clapper, of Victor; secretary and treasurer, Dr. D. A. Eiseline, of Shortsville.

A Circular on Cancer.—The Liverpool Cancer Research Committee has issued a circular urging the importance of early consultation with a doctor in cases of suspected tumor, on the ground that "as with consumption, the earlier the treatment is begun, the greater is the chance of success."

Medical Appointments in Denver, Col.—Health Commissioner Sharpley, on July 8th, made the following appointments: Dr. J. W. Dillon, assistant county physician; Dr. W. C. Mitchell, bacteriologist, reappointed; Dr. F. R. Coffman, medical inspector; E. R. Ellison, clerk at county hospital; William Schradsky, sanitary inspector.

Georgetown University Hospital.—Senior Resident Physician Samuel L. Owens, of the Georgetown University Hospital staff, has retired from that institution, his term having expired. He is succeeded by Dr. Ray D. Adams. Junior Resident Physician Dr. Abrahams has also left the hospital, and his place has been filled by Dr. Mahlon Ashford.

American Otological Society.—The annual meeting of the American Otological Society was held at the Hotel Chelsea, Atlantic City, July 12th. About twenty-five members were present. The following officers were elected: President, Dr. B. Alexander Randall, of Philadelphia; vice-president, Dr. Carmalt, of New Haven; secretary and treasurer, Dr. Frederick L. Jack, of Boston.

The Board of Directors of the Binghamton Society for the Prevention of Tuberculosis held a meeting on July 12th in the assembly room of the city hall. The most important act of the meeting was to make an amendment to the constitution adopted at a recent meeting, providing that persons who reside in this city at this time may be admitted to the new sanitorium, when it is opened, for treatment, but hereafter a residence of two years shall be required to all applicants for admission to the institution. This important step was taken as a result of the recent agitation of certain persons in the city, who feared that the city might become a sort of rendezvous for consumptives if such an institution as proposed by the society should be established.

Banquet to Professor William H. Earles.—A dinner was tendered to Professor William H. Earles, president of the Medical College, Milwaukee, on July 16th. Among those present were Dr. Evans, Dr. Frank Lydston, Dr. Makinleck, Dr. J. B. Murphy, and Dr. Simmons, of Chicago, and Dr. Oviatt, of Oshkosh, Wis.

Minnesota School Teachers to Learn Something About the Eye and Ear.—Under the supervision of the Minnesota State Board of Health, eye and ear specialists will lecture to school teachers at summer training schools this year, with the object of informing school teachers of the common eye and ear diseases, methods by which they may be detected and the proper course to take with children in the schools who are afflicted with any of the long list of eye and ear troubles.

Michigan State Board of Health.—The clerks in the Michigan State Board of Health offices were notified a short time ago that their terms of office would expire on July 31st. Heretofore the term has been without limit. At its meeting on July 8th the board reemployed about half the force for one year and announced that hereafter all applicants will be subject to a competitive examination and that they will be employed only from year to year. The first examination will be held on August 15th.

Antituberculosis Dispensary for Cleveland.—The trustees of Western Reserve University have voted to establish an antituberculosis dispensary in connection with the medical school. This is the second dispensary of the kind to be opened in the United States. In France and Germany the dispensary has already come to represent a most effective instrument in the crusade against tuberculosis. Cooperating with the medical faculty in the work of the dispensary are the Association of Nurses and the Associated Charities of Cleveland.

The Will of the Late Dr. Nathan Smith Davis, of Chicago, has been filed in the Probate Court, the estate being valued at $39,000. The homestead, 291 Huron Street, including furnishings, horses, carriages, and other property, is bequeathed to the widow. A valuable library of medical papers and books is left to Nathan Smith Davis, Jr.; and to Frank Howard Davis, a grandson, the testator bequeathed a perpetual scholarship in the Northwestern University. All the residue and remainder of the estate, real and personal, is left to the son.

Physicians Attain the Proud Position of Saloon Keepers in Kentucky.—Country physicians who furnish whiskey to patients in Kentucky and include the price of same in their service bills, must take out a special tax license in the future, or lay themselves liable to prosecution and fine under the United States internal revenue laws. This decision will be of great interest to physicians practising in rural districts and small settlements. The provisions of the new law may be evaded if the physician includes the whiskey in some compound or prescription rather than delivers it to the patient in its unadulterated form.

The Lake Erie, N. Y., Medical Society, at their meeting on July 1st at Dunkirk, elected the following officers: President, Dr. A. L. Borden, of Gowanda; vice-president, Dr. Southworth, of Forestville; secretary and treasurer, Dr. B. E. Smith.

Michigan College of Medicine.—The site of the new college building for the Michigan College of Medicine and Surgery will probably be changed from 104 Howard Street to Second and Porter Streets, Detroit, Mich., the present site of the old clinic building. The question was brought up at a meeting of the board of trustees lately. The distance of the suggested site, 104 Howard Street, from Emergency Hospital, is given as a reason for making the change.

Few Applicants for District Inspectorships.—The Civil Service Commission of Washington, D. C., did not hold an examination for candidates for medical inspector of the public schools and of physicians for the poor on July 13th. As there was but one applicant for each of the lists, Dr. Woodward recommended that the examination be postponed indefinitely. Although there will be no one on the lists after September 1st, no vacancies are anticipated, and the necessity for candidates is not urgent.

The Buffalo Pesthouse.—Work on the construction of the new municipal or quarantine hospital for contagious diseases was begun on July 8th. The new hospital will cost $50,000. It will be built on the Ferry Street site, now occupied by the ramshackle building that has done service as a pesthouse for about half a century. The opposition to the location of a new quarantine hospital on this site was overcome a few months ago and contracts were let as soon as the plans were revised so the hospital would cost only $50,000, the amount provided by the common council.

Radical Aseptic Destruction of a French Hospital.—Firemen set fire last week to the Contagious Diseases Hospital, at Aubervilliers, near Paris, this method of destruction being thought best, as the establishment, which was built of wood in 1884, had become unsanitary. The project was kept secret from the inhabitants of the vicinity, who when the conflagration burst out were thoroughly frightened. The wind changing during the progress of the fire threatened a lumber warehouse two hundred yards distant, and the flames only with great difficulty were kept within bounds.

Amendment to the Missouri State License Law.—The Missouri State Board of Health has adopted the following requirement: Every applicant for license to practise medicine in the State of Missouri shall present documentary evidence of having a university or college degree or high school diploma; in lieu thereof, said applicant must pass a satisfactory examination before the State superintendent of public instruction upon all branches embraced in a four years' high school course. This is an absolute requirement and no applicant will be allowed to enter the examination without having complied with this order.

The Bulletin of the Connecticut State Board of Health for June reports 391 cases of measles, 138 of scarlet fever, 24 of cerebrospinal fever, 107 of diphtheria, 60 of whooping cough, 24 of typhoid fever, and 21 of consumption. By mortality reports there were 1,128 deaths during the month of June. This was 189 less than in May and 35 less than in June of last year, and 45 more than the average number of deaths in June for the five years preceding.

Mortality of Michigan During June, 1904.—The total number of deaths reported to the Department of State for the month of June was 2,445, a decrease of 492 from the preceding month. The death rate was 11.9 per 1,000 population. This number, while low, is still somewhat higher than the corresponding rate for June, 1903. By ages, there were 405 deaths of infants under one year, 169 deaths of children aged one to four years, and 688 deaths of persons aged 65 years and over. Important causes of death were as follows: whooping cough, 7; scarlet fever, 22; typhoid fever, 30; measles, 35; diphtheria and croup, 44; pneumonia, 130; cancer, 135; accidents and violence, 193; and tuberculosis, 227, including 189 deaths returned from pulmonary tuberculosis and 38 deaths from other forms of tuberculosis. Five deaths from smallpox were reported, distributed as follows: one each in Sherman township, Huron county; Jackson city, Jackson county; Day township, Montcalm county; Monguagon township, Wayne county, and Wyandotte city, Wayne county. There were also two deaths from tetanus, one in the city of Charlotte, following the kick of a horse, and one in Suttons Bay township, Leelanau county, following an explosion of gunpowder. This number may be noted for comparison with deaths returned for the following month, as the result of Fourth of July accidents.

Chicago's Low Death Rate.—Following is a summary for last year, 1903, of the three principal—not necessarily the largest—cities of the world, with respect to child mortality:

	Population.	Total deaths.	Deaths under 5.
London	4,613,812	72,109	25,727
New York	3,732,903	67,864	22,044
Chicago	1,873,880	28,914	7,817

Death rates per 1,000 of all ages:

London.	New York.	Chicago.
15.62	18.18	15.34

Death rates of under 5, per 10,000 of population:

London.	New York.	Chicago.
55.7	59.0	44.1

It is to be noted that the estimated population figures are from 4 to 5 per cent. lower than that accorded to it by most vital statisticians. It is to be noted, further, that, while Chicago's general death rate—that is, the number of deaths at all ages in every 1,000 of the population—is only 1.8 per cent. less than London's, it is 15.6 per cent. less than New York's. And again—and most important, in this connection—that Chicago's under 5 death rate is 20.8 per cent. less than London's and 25.2 per cent. less than New York's. In the foregoing is to be found the answer to the frequent query—generally put with an incredulous air—"What is the secret of Chicago's wonderfully low death rate?" And the usual answer of the wiseacres is, "Oh, it's the climate!" But if there has been any change in Chicago's climate since its average annual death rate was 37.06 in every 1,000 of its population, the weather bureau has signally failed in its function; it has noted no climatic change from one decade to another. And yet in the decade ended 1850 the death rate was 37.06; in that ended in 1860 it was 30.73; in 1870 it had fallen to 23.87; in 1880 to 20.86; in 1890 to 20.55; while the average annual rate of the decade ended in 1900 was only 17.67 and for the last three years, 1901-1903, it is only 14.58. Chicago's decreasing death rate—and especially its decrease since 1893, which is almost 29 per cent. from the average rate of the previous ten years—is due almost solely to the sanitary education of the public, and the result is a further illustration of the wisdom of Lord Derby's apothegm: "Sanitary instruction is even more important than sanitary legislation." The Chicago public is, as the commissioner has taken occasion to say more than once before, better educated in sanitary matters than that of any other community. Its local improvement clubs, its social settlements, its women's organizations, and kindred bodies have given the city more clean premises, alleys, and back yards than ever before in its history; practical instruction to mothers in the hygiene of child life, through the visiting nurses and their sisters, the enormous improvement in the quality of the milk supply—brought about largely through this instruction—these and many other similar influences, sedulously fostered by the department during the last ten years, amply account for Chicago's increasing healthfulness and decreasing death rate. There is no secret about it. Chicago is taking care of its children.

The Agnes Memorial Sanitarium, Denver, Col.—On the highest point in Denver, commanding a magnificent view of the mountains from Pike's Peak to Long's Peak, stands the Agnes Memorial Sanitarium, which was opened on July 2nd. The home was built and furnished by Laurence C. Phipps, of that city, in memory of his mother, Mrs. Agnes Phipps. It was dedicated to the treatment of pulmonary tuberculosis. The question of cost did not enter into the construction of the buildings or their equipment. Everything that science and sympathy could conjure has been done to make the sanitarium adapted to the uses intended. It is believed that it has no superior in any part of the world. It will accommodate from 100 to 125 persons. Hyde Park was chosen as the site, and a more delightful place could hardly have been found. The outlook itself should do much in the cure of the afflicted. It is the intention to make the sanitarium self supporting. The patients will be required to pay the cost of their maintenance and nothing more. Mr. Phipps built and furnished the home and endowed it with sufficient to keep it in repair and make improvements with the progress of medical science and as experience may dictate. The prices will therefore be moderate. The opening exercises began at 2 o'clock in the assembly building. Prayer was offered by Chancellor Buchtel, of the University of Denver. Addresses were made on the aim of the founder and the good that should result, by Governor Peabody and Charles J. Hughes, Jr. Laurence C. Phipps, the donor, made the presentation address, and Chester C. Morey, chairman of the board of trustees, responded. The board of trustees consists of the following citizens: C. S. Morey, chairman; John H. Sawyer, secretary; John G. McMurtry, treasurer; Tyson S. Dines, W. S. Cheesman, John F. Campion, Charles J. Hughes, Jr. Medical board: Arnold Stedman, M. D., chairman; C. E. Edson, M. D.; W. H. Bergtold, M. D.; J. A. Wilder, M. D., secretary; L. B. Lockard, M. D.; superintendent, and medical director, G. Walter Holden, M. D. July 4th, the building was ready for occupancy. The sanatorium is designed to care for those whose physical condition gives promise of arrest or amelioration within a reasonable time. It is expected that the stay of each person may not exceed six months. It is in no sense a home or a boarding house, but a closed institution, where all patients must conform to the rules and directions given them. Intending patients must make application to the director and undergo an examination. In the event of available space in the sanitarium being limited at any time, applicants for admission who are residents of Western Pennsylvania, the former home of the donor and his mother, will be given the preference. The building consists of two pavilions, administration building, medical building, and power plant. The last building contains ice machine, electric light plant, and a finely equipped modern laundry. Neither thought nor expense has been spared in designing, constructing, and equipping the buildings with every essential for the treatment and hygienic comfort of the patients. The ground comprises 40 acres. The buildings, five in number, built after the old Spanish mission style of architecture, are especially adapted to the open air treatment of lung trouble. In the medical building are to be found the most modern appliances for the treatment of consumption, including electrical apparatus in use in the famous Eastern and European hospitals. Electric light as an agent in the destruction of germs will be used to a large extent. The north wing of the main building is given over to the male patients. The 40 rooms are exposed to the sun, and broad porches extend from each one. Sunlight and air are not the least of the many advantages. Next to this wing is the administration building, which contains, in addition to the offices, two large sun parlors for the men and the women patients. On the other side are the rooms for the women, suitably furnished and like all the others bright and airy and sunny. Particular attention has been given to the warfare that must be eternally waged on the microbe, and the walls have been so constructed and the furnishings so arranged that the rooms can be thoroughly cleansed and fumigated at any time. Dr. G. Walter Holden, the medical superintendent, has a well earned reputation as a physician, skilled in his profession, who has had wide experience in the treatment of pulmonary diseases.

Pith of Current Literature.

BERLINER KLINISCHE WOCHENSCHRIFT.

June 6, 1904.

1. Modern Surgery and That of Fifty Years Ago, By KOENIG.
2. Specific Treatment and Vaccination in Tuberculosis (*To be concluded*), By E. MARAGLIANO.
3. Maretin and Its Antipyretic Action, By J. BARJANSKY.
4. Gonorrhœal Phlebitis, By J. HELLER.
5. Aims, Progress, and Significance of Œsophagoscopy, G. GLUECKSMANN.
6. The Processes Involved in Fat Deposits, By G. ROSENFELD.

1. **Surgery Fifty Years Ago.**—Kœnig's address at the opening of the new surgical pavilion at the Charité Hospital, in which he emphasizes the importance of the modern equipment of a surgical operating room for purposes of asepsis, demonstration, photography, the use of the Röntgen rays, etc. The comparisons made with the surgery of fifty years ago are most interesting and instructive.

3. **Maretin.**—Barjansky describes this drug as a methylated acetanilide. It reduces temperatures with safety and slowly in from three to five hours and its effect lasts from five to nine hours. The dose is from four to five grains given in powder form on the tongue, followed by a drink of water. The powder is insoluble in water. The drug exerts no influence upon the pulse, the latter declining simultaneously with the temperature. The respiratory, digestive and urinary organs are not affected, there is no cumulative action, and cyanosis and exanthemata have not been observed. In one case, a temporary collapse was noted. The drug is very cheap.

4. **Gonorrhœal Phlebitis.**—Heller reports a case of this unusual complication, arising, shortly after the acquisition of an acute gonorrhœa, in the left saphena minor vein and in the right pampiniform plexus. The patient eventually recovered. The complication is more frequent in men than in women and it appears that the tendency toward varicose veins does not facilitate its development. It usually appears in the lower extremities during the subacute stage of the disease. The diagnosis is easy and the treatment is that usually bestowed upon phlebitis.

5. **Œsophagoscopy.** — Gluecksmann says œsophagoscopy is not difficult and requires no more practice to learn thoroughly than ophthalmoscopy. The use of a stomach tube, an œsophageal sound and radioscopy cannot replace the newer procedure. The author describes a modified instrument and offers the hope that eventually a gastroscope will be devised which will render the early diagnosis of gastric cancer possible.

6. **Fat Deposits.**—Rosenfeld has experimented on human organs, on rabbits and dogs with various poisons, and concludes that the heart, the pancreas and the liver are the only organs which undergo fatty necrosis or fatty changes. Other organs show either no changes or a loss of fat. Rosenfeld believes that the fatty deposits originate by wandering from other organs.

ZENTRALBLATT FUER INNERE MEDIZIN.

May 14, 1904.

1. Albumoses in Tuberculous Caseation, By B. SPILTHOFF.

1. **Albumoses in Tuberculous Caseation.**—Spilthoff has found deuteroalbumose and peptone in small amounts in ten cases of tuberculous caseation with surrounding glands. When the cheesy material was examined alone, the result was negative seven times out of ten. Hydrolytic products are therefore produced, apparently, with preference, at the periphery of tuberculous processes. Tubercle bacilli do not form albumoses in the cheesy material. Their presence is probably antolytic.

ZENTRALBLATT FUER GYNAEKOLOGIE.

May 28, 1904.

1. The Prophylaxis of Fever in Childbed, By P. ZWEIFEL.
2. Intraperitoneal Shortening of the Round Ligaments, By MENGE.
3. Physostigmine After Laparotomy, By VOGEL.

1. **Fever in Childbed.**—Zweifel makes the observation that despite the perfection of asepsis and antisepsis in midwifery, fever in the puerperium is still frequently seen. The percentage still varies in well conducted clinics between nineteen and twenty-eight per cent. Zweifel believes the cause of this fever to lie in the infection or putrefaction of blood clots that are to be found in the posterior fornix of the vagina of every newly delivered woman. He advises the removal of these coagula with dry sponges in all cases. It is questionable in his mind whether the same result can be achieved by douching the vagina. Since putting this principle into practice, in 243 cases the morbidity was reduced to five and seven tenths per cent., a figure never before reached in Zweifel's clinic. The principle corresponds to that of perfect hæmostasis in surgical gynæcological work.

2. **Intraperitoneal Shortening of Round Ligaments.**—Menge's method of achieving neutral fixation in cases of retroversion of the uterus consists in the intraperitoneal shortening of the round ligaments by suturing them into a band at the level of their uterine insertion, catgut only being used as suture material. He reports 130 cases cured by this procedure. He believes every retroposition of the uterus to be a pathological condition and amenable to surgical intervention.

3. **Physostigmine After Laparotomy.**—Vogel has been using physostigmine salicylate for several years as a prophylactic against intestinal paresis after laparotomy. He uses one sixtieth of a grain hypodermically immediately after operation. His recent experiences confirm his belief in the efficiency of the treatment.

ZENTRALBLATT FUER CHIRURGIE.

June 4, 1904.

1. A Case of Suture of the Heart, By A. VOGEL.
2. Traumatic Facial Paralysis Cured by Nerve Anastomosis, By W. MINTZ.

1. **Heart Suture.**—Vogel narrates a case in which he placed five sutures in the right ventricle for a stab wound in which the most threatening

symptoms appeared. Drainage of the pleura was instituted after resection of the eighth rib in the scapular line. A cloudy pericarditis developed and for two weeks there was a stormy convalescence. Recovery finally ensued, although pulmonary infarcts developed during the fourth week. The author favors primary drainage of the pericardium after the suture of the heart, since the adhesions following primary suture of the pericardium are likely to be extensive.

2. **Nerve Anastomosis.**—Mintz reports the case of a man whose facial nerve had been severed during an operation in the mastoid bone. The central end of the spinal accessory nerve was sutured to the facial at its entrance to the parotid gland. The result was excellent. In two months, the patient was able to close the eyelids and there was complete restitution of the motor functions of the facial nerve.

PRESSE MEDICALE.

May 18, 1904.

Source and Tendency of Modern Surgery, By Reclus.

Modern Surgery.—Reclus's address is an eloquent history of surgery during the thirty-seven years the writer has been a teacher. He places surgery on the tripod of anæsthesia, hæmostasis, and antisepsis; welcomes the returning help of medicine to the wounded; and prides himself on being conservative in the use of the knife, while acknowledging the valuable discoveries made by a daring knife although at the cost of a heavy mortality.

May 21, 1904.

Vaginal Sarcomata in Childhood. By Le Dentu.

Vaginal Sarcomata in Childhood.—Le Dentu reports at length a case of this kind, illustrated with microscopical sections to confirm the diagnosis. He states that the condition seems to be more common in Germany and Austria, but this may be only apparent. The disease is actually congenital in rare cases and attacks the female until the age of 82 years. The ætiology of the case described was apparently traumatism. The tumor was a soft and vascular benign fibroma according to early histological examination, which proves apparently that only a part of the growth was examined and that these growths are not necessarily homogeneous, for later and more careful examination established malignancy. Operation was followed by death in 24 hours, apparently from infective resorption.

GAZZETTA DEGLI OSPEDALI E DELLE CLINICHE

April 10, 1904.

1. Cerebral Hemiplegia; Diabetes; Laryngitis, By M. Luzzatto.
2. Influence of Muscular Activity Upon the Distribution of the Blood to the Periphery, By C. Carlo.
3. A New Cytotoxic Serum, By S. Sartirana.
4. Two Cases of Trachoma Treated with X Rays, By Ruggio Pardo.

2. **Influence of Muscular Activity Upon Distribution of Blood.**—Carlo counted the number of red cells and white cells and measured the circumference of the limbs before and after muscular exercise (bicycle riding, etc.). His object was to determine the influence of muscular activity upon the distribution of the blood at the periphery of the body. He found that the circumference of the arm and of the calf was increased by muscular exercise, and that the number of red and white cells was increased at the periphery of the body. He concludes from this that during muscular exertion, a great amount of blood is distributed to the periphery, and that the longer and more intense the exercise, the greater the circumference of the limbs, and the greater the number of blood cells. There is probably during exercise a constriction of the vessels of the internal organs and a dilatation of the vessels and skin through a vasomotor influence. The number of white cells present after exercise is increased, not only absolutely, but in proportion to the red cells. This is explained by the fact that during muscular exertion there is an increase in the pressure and velocity of the lymph current.

4. **Trachoma Treated by X Rays.**—Pardo treated two cases of trachoma by exposure to the x rays, from four to ten minutes at a time, with a Crookes's tube, at a distance from 30 to 45 cm. The opposite eye was protected by means of a screen of lead and tin. The author's experience with trachoma convinces him that it is a disease which requires long, tedious, and painful treatment, and the successes which had been recorded with the x rays in various chronic diseases suggested to him the possibility that this method would prove efficient in the treatment of granular lids. Both cases were severe types of the malady, and in both good results were obtained, although the patients have been under observation too short a time to make definite conclusions. Since there is danger of the untoward effect of the x rays upon the eye itself in this form of treatment, the author has now also contrived a screen of nickelled lead and tin which is placed over the eyeball, while the x rays are directed upon the conjunctiva.

RIFORMA MEDICA.

May 11, 1904.

1. The Diuretic Action on Theocin, By Maurizio Foa.
2. A Special Type of Enteric Infection Due to the *Bacillus Coli*, By F. Sicuriani.
3. A Contribution to the Treatment of Pulmonary Abscess and to Pulmonary Exploration, By Guido Cavazzani.
4. The Rupture of a Hydronephrosis Simulating an Appendicitis, By V. Gaudiani.

3. **Treatment of Pulmonary Abscess.**—Cavazzani reports fifteen operations for pulmonary abscess in which only three patients died, under conditions which were independent of the operation. He suggests that more attention be paid to the early diagnosis of pulmonary abscesses, and dwells on the usefulness of pulmonary exploration after a wide opening of the thoracic cavity. The danger of this procedure is obviated, according to Cavazzani, if the air in the pleural cavity is exhausted by means of a tube connected with an air pump. This allows the lungs to expand and to cling to the parietal layer of the pleura. After the resection of a portion of lung, as in abscess, a dif-

ferent method must be pursued, and the expansion of the lung must be allowed to proceed very gradually. This is best done, according to the present author, by filling the pleural cavity with saline solution, which becomes slowly absorbed, giving the lung room to expand.

4. **Rupture of Hydronephrosis Simulating Appendicitis.**—Gaudiani relates a case of hydronephrosis in a man aged twenty-four years, in which the enormous sac, containing calculi, suddenly ruptured, as the result of indirect trauma, and gave a clinical picture resembling appendicitis. After exerting himself by carrying a load of wood, the patient suddenly felt a violent non-radiating pain in the right iliac region. The pain persisted with some diminution, and there were nausea and a chilly sensation from time to time. The pain became worse after eating solid food, and gradually spread over the entire abdomen. The patient began to vomit some bile and mucus, and lay with his thighs flexed. There was the general aspect of fever, and on examination the pain was found to be most intense at McBurney's point, although the tenderness extended upward to the renal region. On exploring the appendicular region the cæcum and appendix were found to be normal, but as the patient was getting worse, exploration of the kidney was performed, and hydronephrosis was found. Drainage was established, and a week later, the functional efficiency of the opposite kidney having been in the meanwhile made sure of, nephrectomy was performed. The patient made a slow recovery. Two stones were found in the kidney. A similar case of hydronephrosis and stone in the kidney simulating appendicitis was recently reported by Mignon (*Semaine médicale,* February 3, 1904).

ROUSSKY VRATCH.

May 8, 1904.

1. Fatigue in Writing and in Playing Musical Instruments (*To be concluded*), By I. V. Zabloudoffski.
2. Syringomyelia (*To be concluded*), By M. D. Khanutina.
3. The Morphology and Biology of the Bacillus of Plague and of the Pseudo Tuberculosis Bacillus of Rodents, By S. I. Zlatogoroff.
4. A Rare Case of Aortic Aneurysm, By A. V. Voskresensky.
5. The Hygiene of City Streets (*Concluded*), By M. N. Rubel.

4. **Aortic Aneurysm.**—Voskresensky describes a case of aortic aneurysm which is noteworthy, on account of the enormous size of the sac. The patient was a woman, aged thirty-eight years, who was admitted on account of palpitation, pain in the heart, and cough. Within six weeks of her stay in hospital the tumor increased from the size of an apple to that of a two-year-old child. She had been suffering from dyspnœa since childhood. Nine years ago she had been hit a violent blow in the chest. On the left side of the sternum was a tumor of large size covered with tense, slightly movable, cyanotic skin, which was 47.5 cm. in circumference; 22 cm. in length, and 20 cm. in diameter. It extended from one finger's breadth under the clavicle to the upper border of the sixth rib (the fourth and fifth rib could not be felt, as they were sunk into the tumor). On the left side it extended to the middle axillary line, and on the right to the left margin of the sternum. The percussion sounds over it were not clear, as there was an effusion in the pleural sac. The tumor throbbed distinctly and the apex beat could be felt separately and distinguished from this throbbing. A muffled systolic murmur could be heard over the tumor. Nothing could be done for the patient except palliative treatment. The autopsy showed that the aneurysmal sac was closely adherent to the skin, which was thin and tense, and that the remainder of the third rib passed over the sac, while the second and fourth rib closely adhered to it. The first part of the aorta was very much dilated, and showed evidences of chronic arteritis, while the anterior wall showed an opening at 4.5 cm. over the valves, which led into the aneurysmal sac. The aneurysm itself was spherical in shape and was filled with dense thrombi, reddish-yellow in color; its walls were thin, and its anterior surface showed the muscular layers of the intercostals, which had become merged into its tissues. Posteriorly and to the left, the sac was covered with pleura.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

July 16, 1904.

1. The Surgeon's Heritage. Chairman's Address Before the Section on Surgery and Anatomy, By Charles A. Powers.
2. Will the Long Continued Administration of Digitalis Induce Cardiac Hypertrophy? By Frank B. Wynn.
3. Pernicious Anæmia and Its Relation to Gastric Digestion, Based on Twenty-five Cases, By Charles G. Stockton
4. Falling of the Hair, By R. A. McDonald
5. Radium and Its Therapeutic Possibilities, By William Allen Pusey.
6. Acne Keratosa, By William S. Gottheil.
7. Mesenteric Embolism and Thrombosis. A Study of 214 Cases (*Concluded*), By James Marsh Jackson, Charles Allen Porter, and William Carter Quinby.
8. Does Gonorrhœa Cause Prostatic Hypertrophy? By Edw. L. Keyes, Jr
9. An Analysis of 1,000 Consecutive Cœliotomies for Diseased Conditions in the Female Pelvis. A Preliminary Report, By J. Clarence Webster.
10. Median Perineal Prostatectomy, By George Goodfellow.
11. Medical and Hygienic Exhibtis at the Louisiana Purchase Exposition. I. American Exhibits, By Guy Hinsdale.

1. **The Surgeon's Heritage.**—See abstract of American Medical Association in this Journal for June 11th, p. 1,170.

2. **Digitalis and Cardiac Hypertrophy.**—Wynn reports a series of experiments with digitalis on rabbits, from which he concludes that the long-continued use of this drug induces some hypertrophy of the cardiac musculature, but that the nutrition in general suffers.

3. **Pernicious Anæmia.**—See abstract of American Medical Association in this Journal for June 11th, p. 1,166.

6. **Acne Keratosa.**—Gottheil finds two distinct conditions designated by this name: A pilar folliculitis, and an acnitis, hyperkeratosis being the most marked feature in each case. Both kinds are rare. Description of a case.

8. **Prostatic Hypertrophy.**—Keyes attempts to determine what influence, if any, gonorrhœa exerts in the production of prostatic hypertrophy. His views on the subject are set forth in his summary, thus: (1) Among 433 cases suffering from prostatic hypertrophy, only 18 show clinical evidence of previous prostatitis. (2) These 18 present no marked difference in point of size of the prostate or of beginning of the disease to differentiate them from the remaining 415. (3) Comparison of these 18 cases with 54 cases of chronic prostatitis without hypertrophy shows that the proportion of such cases suffering from prostatic hypertrophy varies little from the normal. (4) Prostatitis lasting more than ten years probably tends to produce prostatic atrophy rather than prostatic hypertrophy. (5) Therefore, if it is true that hypertrophy of the prostate is pathologically referable to inflammation, the clinical data suggest that this inflammation is either early gonorrhœa of relatively brief duration or some obscure sclerotic process associated with advancing years. (6) The late date at which prostatic hypertrophy begins and its infrequency, compared with that of early gonorrhœa, make it seem clinically most improbable that early gonorrhœa is the cause.

10. **Perineal Prostatectomy.**—Goodfellow has had only two deaths in seventy-three patients on whom he has performed prostatectomy according to the following method: With the patient in the ordinary lithotomy position, the bladder being empty or full, a lithotomy staff is introduced, and a median incision from the base of the scrotum to the margin of the anus is made, and carried to the membranous urethra, which is entered with a straight lithotomy knife and the opening extended into the bladder. The finger is then introduced into the bladder and the staff is removed; then with the free hand the bladder is depressed, and the enucleation is carried on. The time consumed for complete enucleation rarely being over five or ten minutes, the resulting hæmorrhage being virtually nothing. The gland may be removed entire or lobe by lobe.

BOSTON MEDICAL AND SURGICAL JOURNAL.

July 14, 1904.

1. Animal Experimentation, By Harold C. Ernst.
2. A Study of Amputations of the Lower Extremity, By Fred T. Murphy.
3. Experimental Decapsulation of the Kidneys, By N. H. Gifford.
4. Functional Albuminuria, with a Report of a Case, By J. Bergen Ogden.
5. Coagulation Time of the Blood. A Comparison Between the Wright and the Brodie-Russell Instruments, Based Upon Six Hundred Observations, By F. T. Murphy, and A. H. Gould.

2. **A Study of Amputations.**—Murphy has studied the histories of 500 cases of amputation of the lower extremity that have been treated at the Massachusetts General Hospital. His main object has been to determine what relationship exists between a good immediate result and a good end result. He finds that they do not necessarily go together. The author dissents from the advice so often given "to save as much as you can." He arrives at these conclusions: Anterior and posterior muscle flaps when obtainable are to be preferred to the circular cuff of skin. The fibula should be cut off at a higher level than the tibia, and care should be taken to bevel off bony prominences. Suture of the periosteum and approximation of the muscles and fasciæ is desirable. Drainage of the stump is advised, unless the dead space is obliterated by means of buried sutures. Partial amputations of the foot or amputations at the ankle joint, except under unusual conditions, are not so satisfactory as those above the ankle joint. Tibial stumps between six and eight inches long are the most serviceable. Amputations through the knee joint are inferior to those just above the condyles. The longer the thigh stump the better, provided the condyles have been removed. In general, in tibial amputations down to four inches and in thigh amputations down to five inches, sacrifice bone in order to obtain good muscle flaps.

3. **Experimental Renal Decapsulation.**—Gifford's experiments were performed on dogs and rabbits. The author thus summarizes his work: (2) There is a certain amount of intracapsular tension in undecapsulated kidneys, normal or with nephritis, as shown on removal of capsule. (3) There is an immediate increase in size of decapsulated kidneys persisting up to one month at least; afterwards, a decrease to approximately normal size complete at end of six months. (4) There is congestion, moderate in degree, most marked in the intertubular blood vessels in cortex, lasting three to five days after the operation. (5) No histological change in the renal epithelium follows the operation of decapsulation of kidneys. (6) A new capsule, very vascular, at first, two to four times thickness of old, is well marked at end of eight days. At the end of six months it returns to approximately the normal thickness and vascularity. The new capsule arises chiefly from the connective tissue cells of the intertubular connective tissue, but in part from the retroperitoneal connective tissue which is present in the new bed of the kidney. (7) No new vessels are formed which anastomose with those of the kidney.

4. **Functional Albuminuria.**—Ogden reports in very great detail a case of functional albuminuria. Hourly examinations of the urine were made on a number of days. Seven tables show in detail the influence exerted by diet, rest and occupation on the composition of the urine during seven days. The morning urine, taken before rising, was practically always free from albumin. The differentiation of functional albuminuria from albuminuria due to pathological conditions is important, since the treatment of the two conditions is different. The treatment of the functional variety is simple food, fresh air and above all vigorous exercise.

5. **The Coagulation of the Blood.**—Murphy and Gould reach the following conclusions: The Brodie-Russell is more reliable than the Wright instrument. The average coagulation time is between three and six minutes. The proof of a de-

layed coagulation must be based upon several observations. The coagulation time is not affected by the ordinary changes in room temperature. Blood obtained simultaneously from different points on the surface of the body shows no marked variation in the coagulation time. A delayed coagulation is not constantly associated with jaundice due either to benign or to malignant obstruction.

MEDICAL RECORD.

July 16, 1904.

1. Pyelitis Complicating Pregnancy, By Edwin B. Cragin.
2. The True Education of Mind and Body, By Richard Cole Newton.
3. A Study of Intestinal Perforation and Peritonitis in Typhoid Fever, with a Report of Three Successful Operations, and a Statistical Investigation of 295 Operative Cases, By William D. Haggard.
4. Improvements in Anæsthetic Apparatus and Technique, By James T. Gwathmey.
5. Hay Fever, Some Practical Suggestions as to Its Management and Treatment, By Ralph Wait Parsons.

1. **Pyelitis in Pregnancy.**—Cragin asserts that pyelitis, as a complication of pregnancy, is not so infrequent as has been supposed. He has seen ten cases of the affection in the past four years. The condition seems to depend on two factors: (1) Compression of a ureter by the pregnant uterus, and (2) infection of the urinary tract above the point of compression. The right kidney is most frequently involved. The symptoms are: Pain in the lumbar region; a rather sharp rise of temperature, not infrequently accompanied by rigors; irritability of the bladder; if the right side is involved the kidney can usually be made out enlarged and tender; the urine is acid, at first containing only a trace of albumin and perhaps a few cast, later pus cells, renal epithelium, and bacteria. The condition usually clears up without difficulty under appropriate treatment.

3. **Intestinal Perforation.**—Haggard has been able to find the records of only 295 cases of intestinal perforation, due to typhoid fever, that have been treated by operation. As there are yearly about 25,000 deaths due to this cause, and as about one third of these deaths might be prevented, the importance of the subject is manifest. The author summarizes thus the facts he has deduced from a study of the cases operated on: (1) Perforation occurs more often in men than women—80.9 *vs.* 19.1 per cent. It is rare in children. (2) It occurs in about 2.5 per cent. of all cases. (3) 3.31 per cent. occur in the first week; 20.19 per cent. in second week; 38.94 per cent. in third week. It has been observed as late as the one hundredth day. (4) It occurs more frequently in severe attacks, but may occur in mild attacks, and it may be the first real symptom of so-called walking typhoid. (5) It occurs in the ileum in 95.5 per cent. of cases. In the large intestine in 12.9 per cent. It may occur in the appendix, Meckel's diverticulum, and jejunum. (6) The perforation is single in 84 per cent. of cases. There may be two or more, and in one case there were twenty-five (post mortem). Cases with diarrhœa and tympany are more likely to have perforation. (7) The death rate given by Murchison is 90 per cent. to 95 per cent. Osler says he cannot recall a single case that has recovered.

4. **Anæsthesia.**—Gwathmey describes a new device for the administration of chloroform or ether. These drugs may be given plain or mixed with oxygen, and be preceded by gas. The active drug is delivered into the mask by an atomizing device which can be run by foot power.

MEDICAL NEWS.

July 16, 1904.

1. The Relations of Surgery to the Recent Advances in the Knowledge of the Pancreas, By George Woolsey.
2. The Application of Conservative and Radical Surgery to Chronic Nasal Accessory Sinus Disease, By R. B. Canfield.
3. Treatment of Lobar Pneumonia in the Adult, By William H. Dukeman.
4. Gastroptosia, By A. Rose.
5. The Treatment of Tuberculous Testicle, By Joseph B. Bissell.
6. Cocainism, By Charles J. Douglas.
7. The Extraperitoneal Relations of the Appendix Vermiformis to the Posterior Surface of the Cæcum with the Report of a Form Hitherto Undescribed. By C. E. Briggs.
8. A Modified Scissors, By Charles Miller, and J. H. Langstaff.

1. **Surgery of the Pancreas.**—Woolsey concludes his paper (1) By urging the more general use of Hahn's method of operating for acute pancreatitis in the early stages; (2) by emphasizing the fact that as several serious lesions of the pancreas may be due directly or indirectly to cholelithiasis we are provided with another indication for more frequently operating on the latter condition; (3) by suggesting that an exploratory operation is the only way of making a diagnosis in many cases of pancreatic disease, and as these, as well as the conditions they resemble, also demand prompt operative treatment, we should not hesitate to advise an early resort to it in case of any doubt.

2. **Accessory Sinus Disease.**—Canfield bases his conclusions on the study of two hundred cases of chronic disease of the accessory sinuses, treated radically, and upon one hundred and ten cases treated conservatively. He emphasizes the benefit to be derived in all cases by general constitutional treatment, but this alone will not cure more than a small percentage of all cases. The author's formal conclusions are: Conservative methods are successful in nine out of ten uncombined cases and should always be given a thorough trial before recourse is had to radical ones. Uncombined empyemas are not uncommon. Drainage of the antrum is most satisfactorily secured through the nose. The ethmoid is the chief cause of the chronicity of obstinate combined cases. The sphenoid is readily accessible through the nose in a large percentage of cases. The best radical antrum operation is the modified Luc-Caldwell. The best frontal operation is that of Killian. Frontal sinus operations not closed at the time of operation may cause

deformity. Great care must be taken of the eye at the time of the frontal operation.

5. **The Treatment of Tuberculous Testicles.**—Bissell after reviewing the teachings of some of the best known authorities and reporting eight cases formulates the following conclusions based on a personal study of one hundred and twenty cases. Epididymectomy is the operation of election; it should be done early; it can be done with the best expectation of relief even if there are higher foci; it is not always necessary to remove the higher foci to obtain relief from their symptoms; it is indicated following a preceding castration where the remaining testicle is not involved, or if so, not very extensively. Orchidectomy is to be performed where the testicle is markedly or alone involved (rare), or where it has broken down, and is a menace to the health of the patient, or where its removal will relieve him of a drain upon his system, and only where epididymectomy is contraindicated. Exploratory orchidotomy following epididymectomy is indicated where single foci or a few nodules are found or suspected. Whichever operative procedure is chosen, special attention must be paid to the modern hygienic dietetic treatment for general tuberculous disease.

6. **Cocainism.**—Douglas asserts that the cocaine habit is very frequently the outcome of the morphine habit, the drug being taken, either to overcome the depressing effect of the morphine, or in an effort to substitute one form of indulgence by another. The symptoms of cocainism are Dilatation of the pupils; hallucinations of sight and hearing; emaciation and insomnia. After withdrawing the drug the patient will return to normal in a very short time. The habit with proper treatment is not very tenacious.

AMERICAN MEDICINE.

July 16, 1904.

1. Fractures of the Extremities: A Report of 1,000 Consecutive Cases, Verified by Radiographs, By G. G. Ross, and M. I. Wilbert.
2. Observations on Smallpox Prevailing in Pennsylvania Since 1898, By George G. Groff.
3. The Carotid Body: Anatomy, Histology, Embryology, and Tumors Arising from It, By John Funke.
4. The Concussional Vertebral Reflexes, By Albert Abrams.
5. Fluorescent Transillumination of the Stomach, By Solomon Solis Cohen.
6. Version in Delayed or Obstructed Labor, By Daniel Longaker.
7. The Ideal Physician, By H. D. Didama.

1. **Fractures of the Extremities.**—Ross and Wilbert claim that their report includes practically all of the fractures of the extremities received and treated at the German Hospital, Philadelphia, during 1902 and 1903, and may be considered as a continuation of the several similar reports previously published, making a total of 2,500 cases in which the clinical diagnosis has been corroborated, elaborated, or corrected by means of the Röntgen rays. In treatment the paper is essentially statistical and cannot therefore be abstracted. The authors urge that, in hospital practice at least, all cases of injury of the extremities shall be studied by the x ray in addition to the more usual method.

2. **Smallpox.**—Groff gives general statistics as to the prevalence of smallpox in Pennsylvania during 1898-99. The object of his article is to show that the epidemic then experienced was real smallpox and not something else. The author quotes from the older authors, beginning with Sydenham, to show that those who were really familiar with smallpox in all its phases knew a variety of the diseases resembling in all particulars the recent outbreak. Three of the author's beliefs will give much satisfaction to those who can agree with him: (1) The disease can only be transmitted directly by the patient. Never in the author's experience has it been conveyed by a physician, nurse, or inspector. (2) The germ of smallpox dies a natural death in from twenty to thirty days. (3) Patients can be managed in private houses without danger of spreading the disease.

3. **The Carotid Body.**—Funke reviews our knowledge of the carotid body and adds some original observations. When present it is situated in the bifurcation of the carotid. It is small, red, firm, and vascular. Tumors of the organ are not rare; Maydl has operated on three such tumors in nine years. The diagnosis, if the possibility of the affection is kept in mind, should not be difficult. It should be based on the position of the tumor, anterior to sternomastoid muscle, extending from the superior margin of the thyreoid cartilage to within a few centimetres of the angle of the jaw; the evident pulsation, but no expansion; the murmur over the growth, but of no greater intensity than over the carotid artery; the synchronous pulsation in both temporals; the boggy or elastic character of the tumor; the movable skin over the growth; a history of long standing and of slow enlargement; in the few months prior to the time the patient presents himself to the surgeon the growth usually has been rapid; occasionally there are vasomotor disturbances, as flushing of the face and inequalities of the pupils. A tabulation of the fifteen reported cases concludes the article.

5. **Transillumination of the Stomach.**—Cohen uses the following solutions in his own practice: Solution No. 1 consists of sodium bicarbonate in distilled water, .162 gramme (2½ grains) to the fluid ounce. Solution No. 2 consists of the same basic alkalinized water, with the addition of 7.5 c. c. (2 fluid drachms) of glycerin and 16 cg. (¼ grain) fluorescin to the pint. By taking a half pint of each solution the patient introduces into his stomach 8 mg. (⅛ grain) of fluorescin, 3.75 c. c. (1 fluid drachm) of glycerin, and one pint of distilled water.

6. **Version.**—Longaker attempts to indicate the cases in which version should be preferred to forceps. No general rules can be laid down. In transverse presentations, in spite of delay, maltreatment, and even ergot, version is usually indicated. Anterior obliquity of the uterus calls for version if all other available means have failed to make the head engage at the inlet. In general, when all the pelvic diameters are under the normal, version should not be resorted to.

BRITISH MEDICAL JOURNAL.

July 2, 1904.

1. The Hospital Ideal and the Concentration of Early Medical Studies in London, By Sir T. Barlow.
2. Acute Malignant Endocarditis, By Sir D. Duckworth.
3. The Early Microscopical Diagnosis of Tumors, By C. B. Lockwood.
4. Concerning Pads on the Finger Joints and Their Clinical Relationships, By A. E. Garrod.
5. The Intravesical Separation of the Urine from Each Kidney, By B. G. Moynihan.
6. Dr. Cathelin's Urine Separator, By J. L. Thomas.
7. The Leishman-Donovan Body in Ulcerated Surfaces; a Possible Route of Its Escape from the Human Body, By Sir P. Manson, and G. Low.
8. Preliminary Note on the Cultivation of Anaerobes, By D. J. Hamilton.
9. Observations on the Value of Some of the Methods Used for Testing Disinfectants, By E. Klein.
10. Experiments of the Disinfection of *Bacillus Typhosus* with Sanitas, Formalin, and Carbolic Acid, By D. Sommerville.
11. The Effect of Certain Dyes Upon the Cultural Characters of the *Bacillus Typhosus* and Some Other Organisms, By E. W. Walker, and W. Murray.

2. **Malignant Endocarditis.**—Duckworth reports a fatal case of acute malignant endocarditis occurring in a boy aged thirteen years. The illness lasted two weeks, and owing to the continued fever and the absence of a heart murmur, was at first thought to be typhoid fever. No Widal reaction was present, however, and later a petechial rash and meningeal symptoms developed. Examination of the blood showed a distinct leucocytosis, and cultures taken a day or two before death revealed a copious invasion of the blood and cerebrospinal fluid by a streptococcus. At the autopsy evidences were found of recent disease of the mitral valve. Slight displacement of the apex was the only evidence of cardiac disease.

3. **Microscopical Tumor Diagnosis.**—Lockwood states that the clinical diagnosis of malignancy in young and ambiguous tumors is fraught with great difficulty. It is very rash to rely on the supposed innocency of a tumor from its clinical history and naked-eye appearances alone. But all these difficulties are easily overcome by examination of the tumors with the microscope, as soon as possible after their discovery. The procedure is simple. When the patient has been anæsthetized an incision is made, and a portion of the tumor is cut off and frozen on a Williams ether-freezing microtome. Sections are then cut and floated upon a slide, stained with methylene blue, protected with a cover glass, and examined. In conclusion the author cites a number of cases in which this method of immediate diagnosis (during the operation) was of the greatest service. Patients will more often consent to operation, knowing that the tumor will not be removed unless malignant. After operation, also, microscopical examination of a portion of the margin of the wound will show whether removal of the tumor has been complete. In conclusion he advises the physician, when confronted with a young and ambiguous tumor, to assume an attitude of intellectual humility, and carefully to eschew diagnostic omniscience and infallibility.

4. **Finger Joint Pads.**—Garrod calls attention to the existence of lesions which he calls finger joint pads. They form excrescences which are almost confined to the dorsal aspects of the interphalangeal joints of the proximal row, being rarely seen upon the terminal row. They are usually present upon the fingers of both hands. They vary considerably in size, and may be no larger than split peas. The pads are soft when the fingers are extended, but firm and hard when it is flexed. They may appear at any period of life, and when once formed are usually permanent. They may be quite painless, or set up severe pain. There does not seem to be any connection between these pads and rheumatoid arthritis or the gouty diathesis; but of twelve patients showing such pads, six had Dupuytren's contraction.

5, 6. **Intravesical Separation of Urine.**—Moynihan describes the instruments of Luys and Cathelin for the intravesical separation of the urine from each kidney. Both instruments are double catheters, with an expansible sæptum, which is drawn into place after the instrument has been passed. The sæptum is vertical, and divides the bladder cavity into two parts. In the Luys separator the sæptum fills the concavity of the catheter; in the Cathelin the sæptum projects from the tip and convexity of the catheter. Thomas speaks highly of the value of the Cathelin urine separator and cites a number of very striking illustrations of the efficacy of the instrument in keeping unmixed the two urines in the bladder.

7. **Leishman-Donovan Body.**—Manson and Low report the finding of the Leishman-Donovan parasite (thought to be causative of certain low tropical fevers) in the lymphatic glands of the mesentery and in infiltrated areas and ulcers of the intestine. They suggest that, failing the discovery of any other means of exit from the body, it may be that the normal route of escape from the parasite is by an ulcerated surface.

8. **Anaerobes.**—Hamilton has succeeded in growing anaerobic bacteria by using capsules in which the culture medium is covered with a layer of sterilized olive oil. The capsule is then sterilized as a whole, allowed to cool, and inoculated with the desired organism by means of a Pasteur pipette. If desired, the cultures may be preserved by killing the organism with formaldehyde vapor, and using pure castor oil as a preservative.

9, 10. **Value of Disinfectants.**—Klein calls attention to the fact that the ordinary bacillary tests of disinfectants do not present the same conditions as are actually met with in the human body. In the tests simple watery emulsions of the bacillus are used, while under actual conditions, besides the bacteria, various tissue elements (leucocytes, tissue fibres, etc.) are met with. Thus a certain disinfectant completely disinfected a watery emulsion of typhoid bacilli, while the same disinfectant could not disinfect a typhoid stool in fifteen minutes.

Sommerville reports the results of experiments undertaken to determine the relative bactericidal values of sanitas, formalin, and carbolic acid as applied to the typhoid bacillus. He found carbolic acid to be by far the most efficient, formalin being 0.4 and sanitas 0.02 per cent.

11. **Dyed Culture Media.**—Walker and Murray in report No. LXXXVII to the Scientific Grants Committee of the B. M. A., state that when certain small percentages of various dyes are added to culture media, certain remarkable changes are observed in the cultural characters of bacteria grown therein. The change consists in the conversion of a normal short bacillus into a form which presents itself almost entirely as long filaments or threads. These may be twenty times the length of the ordinary bacillus, and often show no sign of segmentation. Different strains of the typhoid bacillus, and the *Bacillus coli* and the cholera vibrio were used. The dyes used were methyl violet, gentian violet, fuchsin, methyl green, and methylene blue. The methyl violet gave the most marked results. Ordinary agar agar, bouillon, and gelatin were used as media.

LANCET.

July 2, 1904.

1. Experiments of the Immunization Against Infection of Operation Wounds, Especially on the Peritonæum. (Milroy Lectures: II), By F. WILLIAMS.
3. The Causation, Diagnosis, and Treatment of Perforating Ulcer in Typhoid Fever, By E. W. GOODALL.
4. On the Beneficial Effects of Sodium Arsenate Employed Hypodermically in Tsetse-fly Disease in Cattle, By E. J. MOORE.
5. The Downes Electrothermic Angeiotribe, By H. M. JONES.
6. On Diabetic Neuritis, By F. W. PAVY.
7. The Treatment of Hæmorrhoids and Allied Conditions by Oscillatory Currents of High Tension. Based on an Experience of 118 Cases, By T. J. BOKENHAM.
8. Accidental Vaccinia of the Nasal Cavity, By W. H. BOWEN.
9. The Presence of Bacteria in the Organs of Healthy Animals, By H. DE R. MORGAN.
10. On Non-flagellate Typhoid Bacilli, By J. W. W. STEPHENS.
11. A Case of Traumatic Tetanus; Recovery, By H. COLLINSON.

1. **Immunization of Peritonæum Against Infection During Operation.**—Mikulicz-Radecki deals with the question of the production of a protective hyperleucocytosis in the blood of patients about to undergo abdominal operations. The injection of various substances into the bodies of animals leads to a hyperleucocytosis some seven hours later. As a remedy for disease this method as yet is of little value, but as a mode of prophylaxis against infection it may prove to be of great service. Nucleinic acid is the most powerful of the substances used, and repeated injections are needed to produce the best effect. A two per cent. solution, used in quantities of one gramme for seventy-five kilogrammes of body weight, was employed in all cases. The injection is given twelve hours before the operation, and no harmful manifestations result, other than a slight rise in temperature. The author concludes that cases treated in this way have given more favorable results, not only in the number of recoveries, but also in the progress of the individual cases. A valuable adjuvant to the hyperleucocytic prophylaxis is the flushing out of the peritonæum with hot saline solution.

2. **Deaths in Childbed.**—Williams, in the second Milroy lecture, discusses the ætiology of puerperal fever. It is possible that sewer gas may play some part, but as to scarlet fever, measles, and diphtheria, it is doubtful whether they have any causative relation whatsoever with puerperal fever. The statistics and evidence collected by the author are all against it, and go to show that in almost every instance the disease has been spread by midwives.

3. **Perforation in Typhoid Fever.**—Goodall's observations are based on the notes of 96 cases of perforation occurring amongst 1,921 cases of typhoid fever. All the 96 were fatal except two, in one of which an operation was performed, and in the other a wrong diagnosis was made. Two thirds of the cases occurred in men, and the large majority of them after the third week of the disease. The most common immediate cause of perforation is the mere extension of the necrotic process to the peritoneal coat of the bowel. The most constant symptom is pain in the abdomen, which is nearly always sudden and severe. The seat of the pain is usually in the right iliac region. There may also be tenderness, rigidity, and retraction or distention of the abdomen. Shivering is one of the most important constitutional symptoms. A fall of temperature usually means collapse or the onset of peritonitis. The author cites twenty-two cases, which illustrate the various points of diagnosis. If perforation is diagnosticated there is only one course to be pursued—laparotomy, with usually suture of the perforated portion of the bowel. Rapid performance of the operation is, of course, most advisable. If the perforation is not found at once on opening the abdomen, the ileocæcal valve should be taken up, and the small intestine examined upward from it. The best incision is in the right linea semilunaris.

4. **Tsetse-fly Disease.**—Moore reports that single large injections of sodium arsenate, of ten grains or even more, well diluted and given at intervals of a fortnight, exercise the most marked beneficial results in cases of advanced tsetse-fly disease in cattle. This procedure, together with the prevention of reinfection, furnishes the most satisfactory treatment of this condition.

7. **Hæmorrhoids.**—Bokenham reports 118 cases of hæmorrhoids and allied conditions treated by Doumer's method of oscillatory electric currents of high tension. The results obtained were excellent, being best in cases of fissure, pruritus ani, and in early cases of hæmorrhoids, which do not exhibit excessive hyperplasia or thickening.

9. **Bacteriology of Healthy Tissues.**—Morgan has studied the healthy organs of various animals for the presence of bacteria, and as a result of his observations concludes that normal organs do not contain pathogenic bacteria, and that the presence of non-pathogenic organisms in the cultures is probably due to accidental contamination.

10. **Non-flagellate Typhoid Bacilli.**—Stephens, making use of his method for staining the flagella of bacteria with silver, finds that certain strains of typhoid bacilli are non-flagellate, and do not exhibit the characteristic active movements of typhoid bacilli.

AMERICAN MEDICAL ASSOCIATION.

Fifty-fifth Annual Session, Atlantic City, June 7, 8, 9, and 10, 1904.

SECTION ON NERVOUS AND MENTAL DISEASES.

Second Day, Afternoon Session, June 8th.

Facial Paralysis, Bilateral, With Marked Sensory and Reflex Defects, Possibly Due to La Grippe.—This paper was read by Dr. F. W. Langdon, of Cincinnati, Ohio. The case occurred in a male teacher, fifty-one years of age, married, and in vigorous health. Grippe was said to be the cause of the attack. After suffering from occipital headache for five weeks, he took a journey of fifty miles, and the next day was seized with right lagophthalmos, followed three days later by inability to close the left eye, at which time there was slight dysphasia, marked dysæsthesia, both facials being paralyzed, the speech blurred, but the mental and motor functions normal. Later, there developed an inability to close either eye, smile, frow, or wrinkle the forehead, or to roll up the tongue, but he could move it in all other ways. There were marked bilateral defects in the taste; the knee jerks were absent for three days, plantar reflexes were of the flexor type and active. There was no polar reversal. There was no history of heart disease or syphilis, and the facial muscles were sluggish in their response to faradaism and galvanism.

Dr. T. H. Weisenburg, of Philadelphia, stated that he had recently seen three cases of bilateral facial paralysis, one of which had a history of the disease in his male ancestry for two prior generations, and added that he believed it was caused by congenital narrowing of the duct, causing pressure on the facial nerve.

Dr. Hugh T. Patrick, of Chicago, reported a case of double facial paralysis in a child in which the electrical reactions were not the ordinary reactions of degeneration, the eye muscles were not involved, nor were the muscles of the extremities to any great extent, but there was general lassitude, weakness and general fatigue, in addition to the facial paralysis, which case he was rather inclined to diagnosticate as myasthenia gravis.

Dr. Coulter, of Omaha, Neb., reported a case of unilateral facial palsy occurring in a physician following grippe. The physician realizing that he was contracting the grippe had driven all day in doing his work, resulting in this condition; the knee jerks were absent; there was a great deal of sweating and both plantar reflexes were flexor in type.

Dr. Albert E. Sterne, of Indianapolis, Ind., referred to the case of a man who was thrown from a wagon and struck on the back of his head a little to the right side, causing deafness in the left ear, paralysis of the left half of the face, and loss of sensation in the right half of the body. In this case twenty years after, under careful systematic treatment, the use of the facial muscles was recovered to a considerable degree, and the hearing and sensations on the right half of the body were restored to normal. Another case reported was that of a man who was stricken suddenly with symptoms exactly similar to those of poliomyelitis; later, wasting of the muscles, which were paralyzed, and degeneration, which still existed to a large extent in the man's trunk and both halves of the face.

A Clinico-Pathological Study of Hemiplegia, With a Microscopical Examination in Eleven Cases.—This paper was read by Dr. T. H. Weisenburg, of Philadelphia, in which he gave a clinical report of the study of 150 cases of hemiplegia with especial attention to heredity, prehemiplegic and posthemiplegic pain, atrophy of the muscles of the paralyzed side, and the respiratory movements and trophic disturbances on the paralyzed side. In the pathological report particular attention was directed to the primary seat of the lesion, the degree of degeneration in the cerebral peduncle, the relative amount of degeneration in the direct and crossed pyramidal tracts, with reference to the findings of Marie, Guillain, and others, the state of the nerve cells of the anterior horns, and the conditions of the nerves and muscles of the paralyzed side. The author then gave a careful résumé of both the clinical and pathological literature on the subject.

Dr. Guy Hinsdale, of Hot Springs, Va., referred to the fact that in a number of cases of hemiplegia, he had observed that the patient would yawn, which would be accompanied by movement in the paralyzed arm or leg, and while he supposed this was to be explained on the ground that it was a reflex condition, it was not the sudden quick movement of the knee jerk, but a more deliberate movement, such as putting the hand to the head and down again.

Dr. Hugh T. Patrick, of Chicago, Ill., referred to the theory advanced by Jackson as to the increase in respiration on the hemiplegic side, which accounted for it by the fact that use of the extremities on one side increased the action of the trunk muscles on the other side, and therefore, when the paralysis occurred, the weakness of the trunk muscles would be on the opposite side.

Dr. Theodore Diller felt that the intimate association of the sensory and motor functions was frequently lost sight of, referring to the fact that there were sensory phenomena present in paralysis agitans and also in Landry's paralysis, the latter of which had formerly been regarded as a pure motor disease.

Dr. David I. Wolfstein, of Cincinnati, Ohio, referred to the diagnostic value of the Babinski sign, and reported two cases which had recently come under his observation, in which it had been present within an hour after the onset of the disease.

Dr. Coulter reported a case of fracture of the skull with coma and hæmorrhage from both ears, in which the Babinski sign was present within three hours after the accident.

Dr. Frank P. Norbury, of Jacksonville, Ill., reported the case of a physician in whom the disease developed, terminating fatally after four years. Both the patient's father and his grandfather had died of the same cause at about the same age.

Dr. Albert E. Sterne referred to the fact that in the early cases shortly after the apoplectic attack, there was a rise of temperature on the paralyzed side.

This paper was also discussed by Dr. Arthur Conklin Brush, of Brooklyn, N. Y., and Dr. Brainard, who reported the results of autopsies on two cases of hemiplegia, the one occurring in a young woman during the menstrual period, in which there was no cardiac lesion present, and in which he suggested that the source of the clot might have been from the endometrium; the other occurring in a woman about sixty. In regard to the hereditary tendency, he reported the case of a man dying from this condition, whose male ancestry for three preceding generations had died from the same cause.

Dr. T. H. Weisenburg, in closing, stated that most of the cases were due to hæmorrhage; that the paralysis was most marked in the distal ends of the extremities; and that in only 30 out of 109 cases was there any sensory disturbance. The Babinski reflex was observed in most cases within twenty-four hours; it was absent in three cases, and in two cases was present within twelve hours.

Two Cases of Congenital Deformity, Possibly Due to Intrauterine Disease of the Spinal Cord.—This paper was read by Dr. Charles W. Burr, of Philadelphia. The first case was that of a man, fifty-five years of age, four feet tall. The head was practically normal; the skin normal; no anæsthesia; sensation preserved all over the body; the reflexes were present, and there was no clinical disturbance discovered; the legs and arms were deformed and he was unable to walk on account of weakness of the muscles; the epiphyses of the bones were distinctly abnormal and the skiagraph showed marked absence of lime salts in the bones of the hands. The other case was that of man, aged twenty-three years, in whom the shoulders, arms, and forearms were deteriorated, or had never developed; the biceps jerk was absent, there was no disease of the bones; there was very slight wasting in the left leg, which could only be detected by measurement. Several theories had been advanced as to the cause of the condition, among others, bilateral brachial palsy from birth, malposition in utero, but the author was rather inclined to believe that possibly the man had in utero disease of the anterior horns of the spinal cord.

Dr. F. X. Dercum stated that he was quite familiar with the first case, and believed it to be due to disease of the bone, possibly associated with muscle and tendon disease. The other case he thought to be one of intrauterine poliomyelitis and could see no reason why the spinal cord should not yield to the toxic influences in utero, as well as in life.

Dr. Coulter referred to the statement of Gower, that there was usually an abnormal growth of hair, especially in the region of the vertebræ, in cases of this character.

Dr. B. Onuf, of Sonyea, N. Y., referred to a case, in which there was a question as to whether the condition was due to congenital poliomyelitis acquired in utero or to central neuritis, which he had studied clinically and pathologically, and after making five sections was in considerable doubt.

Dr. Albert E. Sterne called attention to the fact that one of the skiagraphs in the first case showed an elongation of the femur approaching toward the tibia and filling up what would otherwise be a gap.

Dr. Shelly, of Kansas, referred to the prominence given to the subject of maternal impressions in the recent textbooks on obstetrics, which he believed had absolutely no foundation, and urged that the efforts of the profession be directed to ridding both the laity and the physicians of this idea.

Dr. C. C. Hersmann stated that he believed any maternal impression would have to occur very early in the life of the fœtus. He reported the case in which the œsophagus was entirely severed, which the mother attributed to the fact that, while pregnant, she had seen a hog's throat cut. He reported several other cases of abnormal fœtal developments.

Dr. Charles W. Burr, in closing, stated that he did not believe in the theory of maternal impressions.

A Case of Spastic Diplegia Occurring During an Attack of Pertussis, With Autopsy.—This paper was read by Dr. J. H. W. Rhein, of Philadelphia. The patient was a child, twenty months old, born after a normal labor, and delivered without instruments, and had had no previous history of nervous disease; there were no cardiac symptoms, the lungs were normal, and the eyegrounds negative. The child lost the power of walking, later developed spasticity of the arms and legs, nystagmus, *petit mal* attacks, and finally general convulsions just before death. Nothing could be observed macroscopically at the autopsy, but microscopically the circumvascular spaces were distended, the vessels were surrounded with round cells, multiple small hæmorrhages were found in the cortex, pons, and cerebellum, and in the cord there was degeneration of the crossed and direct pyramidal tracts.

Dr. T. H. Weisenburg referred to the case of a canary bird, which had been in the house with three children suffering from whooping cough, and developed coughing spells, more frequent at night, and had attacks of panting associated with coughing, for which cocaine was given. It finally died from diarrhœa after glycerin was placed in the drinking water. Examination of the brain showed the bloodvessels were very prominent and could easily be seen.

Dr. Moore referred to the fact that in cases of severe nervous disease following acute infectious diseases, there was a question as to whether the disease was due to mechanical irritation or to the toxines, and he reported a case in which the child, following an attack of whooping cough, became totally blind, although ophthalmoscopic examination was negative, and the child finally made a complete recovery. He attributed the condition to small minute hæmorrhages not sufficient to cause a fatal termination.

Dr. J. H. W. Rhein, in closing, felt that it would be interesting to have the disease studied in lower animals, but had not been able to discover from the literature whether it would be possible to give them the disease or not.

An Encouraging Case of Locomotor Ataxia.—This paper was read by Dr. Guy Hinsdale, of

Hot Springs, Va., in which he stated the patient had been twice under his care. He was engaged in a large canning factory, married eighteen years, with no children; used alcohol and tobacco, but denied syphilis. He resumed his occupation about three months after the beginning of treatment in the first attack. The second attack developed about three years later, with severe gastric crises and abdominal pains. Under treatment by rest, hypodermic injections of mercuric chloride, strychnine, and gradual feeding, in connection with massage, electricity, and educational massage, he gained 46 pounds in nine weeks and showed great general improvement.

The Treatment of Acute Anterior Poliomyelitis by Nerve Anastomosis.—This paper, by Dr. W. G. Spiller and Dr. Charles Frazier, of Philadelphia, was read by Dr. Spiller. He stated that in poliomyelitis the motor nerve cells of the anterior horns in a limited area were destroyed, and the nerve fibres having their origin in these cells degenerated, and following the destruction of the nerve fibres, the muscles formerly innervated by these nerve fibres atrophied. He believed that, if the persisting paralysis was slight, there was hope of recovery of function by anastomosis of the peripheral end of a diseased nerve with a normal nerve, but the success of the operation would depend on the degree and extent of the persisting paralysis, the time at which the operation was done and the surgical technics.

Dr. Wharton Sinkler, of Philadelphia, believed this to be one of the most important advances in the treatment of poliomyelitis, and he felt that the time would come when it would frequently be done. He also referred to the fact that a similar operation had been done in the treatment of facial paralysis.

Dr. Albert E. Sterne felt that the method had many advantages over tendon transplantation, as in this way you established a normal function in a set of muscles already in existence, whereas in tendon transplantation, you disabled to a certain extent a group of muscles. He also urged the early institution of treatment by means of electricity, massage, etc., in cases of poliomyelitis.

Dr. David I. Wolfstein believed that early intervention in cases of anterior poliomyelitis was illogical, until it could be determined to what extent the cord was diseased and to what extent the muscles were going to atrophy. He also believed tendon transplantation to be superior to the method of nerve anastomosis outlined by the author.

Dr. C. Hersmann believed that even six months was rather early to operate, and reported a case in which the use of the arm was slowly being regained after a period of two or three years.

Dr. Howell T. Pershing, of Denver, felt that while we should be on the lookout for every improvement in the treatment of this disease, the results of such an operation would have to be proved by more than one or two cases before we could come to such a decision. He believed that the use of electricity and massage or any other mode of nerve irritation was contraindicated in the early stages of the disease.

Dr. Spiller, in closing, believed that in a great many of the cases the paralysis was limited to a small number of the muscles, and felt that the operation should be performed only in selected cases. He stated that the longer the operation was delayed, the less likely it was to be successful, and for that reason he had named the period of six months.

Some Unusual Forms of Multiple Neuritis.—This paper was read by Dr. Wharton Sinkler, who stated that the condition had only comparatively recently been recognized, the most common type being due to alcoholism. He said that there were many forms of peripheral paralysis, which were due to multiple neuritis, but not recognized as such, among which were arsenic used medicinally; lead used medicinally or as a cosmetic or absorbed in the occupation; septic multiple neuritis occurring after miscarriage, abortion, or labor. He reported several cases illustrating each of these conditions.

Dr. J. H. W. Rhein, of Philadelphia, reported a case of neuritis occurring two weeks after childbirth, in which the patient had had very little fever and no evidence of puerperal spasm.

Dr. Angell, of Rochester, N. Y., reported a case of neuritis from lead poisoning from chewing the lead seals from cans by an employee of a tobacco factory, who had done this for a period of two or three years, chewing two or three each day. He also referred to the case of a farmer in whom the disease had resulted from kneeling on the ground husking corn all day.

Dr. David I. Wolfstein reported a case of multiple neuritis complicating influenza, in which the diagnosis from articular rheumatism was very difficult, but as it was followed ten days later by an attack of double catarrhal pneumonia, this, he felt, confirmed his diagnosis. He stated that he had seen several cases of multiple neuritis following influenza.

Dr. T. H. Weisenburg referred to the cases of beri beri which he had studied while an army surgeon in the Philippine Islands. The disease was of two kinds, the dropsical form, which was much swollen, and the dry form; the prognosis in the former being much the best. He stated that the disease seemed to be governed by the locality in which the prisoners were confined, and that if removed to another part, further development would immediately cease.

This paper was also discussed by Dr. C. C. Hersmann and Dr. Moore. The discussion was closed by Dr. Sinkler.

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Royal Interest in Medicine.—King Edward of England is a fellow of the Royal College of Physicians, and also of the Royal College of Surgeons. Two of his predecessors on the English throne, Henry VIII and Charles I, were also physicians. Froude says that "bluff King Hal" was one of the best doctors of his time, an assertion which is not perhaps entitled to overmuch consideration, but the first Charles was really an intelligent and helpful patron of the healing art.

Letter to the Editor.

IDIOPATHIC PRIAPISM.

1265 Bedford Avenue,
Brooklyn, *July* 9, 1904.

To the Editor,

Sir: I note in the *Journal* for this week an interesting account of a case of Idiopathic Priapism which lasted for a day or two at a time. It interested me very much, for I recollected having read of a similar case some time since in an old book. It was first printed in the *Scot's Magazine* for 1755, a non-medical journal, a volume of which is still in my possession. The account is as follows:

> "Bakewell, Derbyshire. April, 1755.
>
> "Sir: I herewith send you an account of a case which fell under my care, the like of which I never met with in my practice of twenty years.
>
> "Near Buxton Bath, Derbyshire, lived one J. W., a robust, middle aged man, who was suddenly in his first sleep seized with the most excruciating priapism that I ever knew, read, or heard of. I was immediately sent for; and after some talk with my patient, I proceeded in the old practical way of revulsion, by repeated phlebotomy, cathartics, emetics, mercurials, repelling stupes, emollients, cataplasms, injections, cold baths, opening the vena ipsius penis. I also proposed a salivation, but it was refused. Nay, after having in vain tried all manners of means, he continued in his deplorable state and in the most exquisite pains, day and night, for six weeks and three days, not having (as hundreds of living witnesses can testify who came to see him) within that time either ten minutes' ease, or ten minutes' sleep at any one time, nor any kind of cessation in the erection whatsoever, so that being at length worn into a convulsive atrophy with continual pains and want of sleep, frequently bleeding very profusely at the nose and sometimes at the mouth, he died. I can assure the public (if it should be suspected) that his case was in no way venereal. I shall be glad to know, if any gentleman of the faculty ever saw or heard of the like case, or if they can account for it, either physically or rationally.
>
> "I am, etc.,
> "H. C."

Nathan T. Beers, Jr.

Book Notices.

Blood Immunity and Blood Relationship. A Demonstration of Certain Blood Relationships amongst Animals by Means of the Precipitin Test for Blood. By George H. F. Nuttall, M. A., M. D., Ph. D., University Lecturer in Bacteriology and Preventive Medicine, Cambridge. Including Original Researches by G. S. Graham-Smith, M. A., M. B., D. P. H. (Camb.), and T. S. P. Strangeways, M. A., M. R. C. S., Cambridge: at the University Press, 1904. Pp. xii-444.

The essential portion of this book is devoted to the precipitins, but this is preceded by fifty pages consisting of a very carefully prepared résumé of our present knowledge and conceptions of immunity to specific diseases. This preliminary part treats of Ehrlich's theory regarding the formation of antibodies, together with a brief consideration of toxines and antitoxines; antiferments and ferments; the cytotoxines of blood serum; the action of different sera upon the blood corpuscles of certain animals *in vitro* and *in corpore;* and agglutinins and antiagglutinins. It is such a summary as few men could have made, invaluable, we should say, to laboratory workers in pathological hæmatology.

It is in the second part, on the precipitins, that Dr. Nuttall's own researches are particularly set forth. The author gives precise details of his methods of studying the precipitins, describes the properties of those substances, and records, largely in tabular form, the points brought out in 16,000 tests made by himself with precipitating antisera upon 900 specimens of blood obtained from various sources. The industry and minute attention to detail shown in this record are little short of marvelous, and we have no hesitation in saying that Dr. Nuttall's work cannot fail to facilitate extremely the labor of succeeding investigators of the subject.

In the section on the practical application of the precipitin reactions in legal medicine, etc., we find good reason to expect that the use of the precipitins is destined to play an important part in the distinction of human blood stains from those due to the blood of the lower animals and in the detection of the meat of various animals. To illustrate the matter last mentioned: "Minced meat," it is said, "is sold in most countries. Admixtures of horse, dog, and cat meat can be detected by the precipitin method in minced meat, in sausage, and smoked meat, these of course not having been subjected to cooking."

The book, as we have intimated, cannot fail to prove of the greatest service to those who are working in the subjects of which it treats, but no reader must expect to profit by it to the full extent possible unless he has either himself done considerable advanced work in pathological hæmatology or taken unusual pains to master what has been published on the subject. From the mechanical point of view, the volume is worthy of high praise. We must say, however, that, accustomed as we are getting to be to the "lapidary" style of title pages affected by publishers recently, it grates on us to see in the text of this work "Mr" and "Dr" (as if they were not abbreviations); and some points in the punctuation used throughout the book seem to us puzzling and nonsensical.

Die Tuberkulose als Volkskrankheit und ihre Bekämpfung durch Verhütungsmassnahmen. By Dr. Max Salomon, Sanitätsrath in Berlin. Berlin: S. Karger, 1904. Pp. 66.

This is another of the numerous essays written of late for the education of the laity. The author calls it "Ein Mahnruf an das deutsche Volk." In a concise and comprehensible way the author gives first an historical and statistical synopsis to justify the name "Volkskrankheit"—disease of the masses, or, disease of the people. In the second chapter he ably shows the truth of the Latin proverb which is so very applicable to the solution of the tuberculosis problem, namely: *cessante causa cessat effectus.* He emphasizes the doctrine that tuberculosis is a preventable disease and that the idea of fatalism regarding its existence has no justification. As it is difficult to put anything in a popular essay which is not known to the profession, we will content ourselves with simply enumerating the contents of the chapters in which he has dealt with the topic very explicitly. He divides general preventive measures into five portions: First, preventive measures concerning the inhalation of tuberculous dust; second, sanitary measures concerning hospitals, prisons, factories, schools and dwelling houses; third, preventive measures concerning midwives and nurses; fourth and fifth, preventive measures concerning food substances and their sale. Under individual precautionary measures he speaks of the hygiene of marriage and of children, the prevention of alcoholism, and the care of predisposed individuals. Under the latter heading he emphasizes the great value of seaside sanatoria for scrofulous and tuberculous children and for such as are inclined to become tuberculous. Salomon's essay received the prize of the Hufelandische Gesellschaft, of Berlin, and it would seem that it has been well bestowed upon the gifted author.

Vorlesungen über den Bau der nervösen Zentralorgane des Menschen und der Tiere. Für Arzte und Studierende. Von Prof. Dr. Ludwig Edinger, arzt. Direktor des Dr. Senckenbergischen neurologischen Institutes in Frankfurt am Main. Erster Band. Das Zentralnervensystem des Menschen und der Säugetiere. Siebente, umgearbeitete und vermehrte Auflage. Mit 268 Abbildungen. Leipsic: F. C. W. Vogel, 1904. Price, 17 M.

When a work of the monumental character of Edinger's on the central nervous system has reached its seventh edition the task of the reviewer is an easy one. It may be summed up in the one word, praise—for this admirable example of the best traditions of German thoroughness and accurate scholarship. This treatise has, indeed, attained the rank of a classic, and it is not too much to say that it is indispensable alike to the laboratory worker and to the practising specialist in nervous diseases. The new edition appears in two volumes, and the plan of the work has been somewhat modified and extended. In this first volume human and mammalian anatomy is considered, and more attention than in previous editions has been bestowed upon pathological and clinical relations, thus increasing the practical value of the book. The illustrations are numerous and of a high order of excellence, many of them being in colors. The press work, paper, and type are worthy of the text.

An Introduction to Vertebrate Embryology, based on the study of the Frog and the Chick. By Albert Moore Reese, Ph. D. (Johns Hopkins), Associate Professor of Histology in Syracuse University and Lecturer on Histology and Embryology in the College of Medicine. With 84 Illustrations. New York and London: G. P. Putnam's Sons, 1904.

While Dr. Reese's book is intended only as an introductory manual to the study of vertebrate embryology, it covers the field so very exhaustively that it might well have been given a more pretentious title. As noted in the title, the frog and the chick have been chosen as the types, and the development of these animals is most clearly and admirably traced. Many of the questions in human embryology which are still unsettled are more easily comprehensible from the study of the amphibian and the bird, and Dr. Reese has done well, we think, to select these animals as his types.

It is scarcely the function of the reviewer to discuss disputed points, but we cannot forbear mentioning the fact that the author adopts unchallenged Marshall's view that the Wolffian body of the frog is of mesoblastic origin; Kollmann's theory of ectoblastic origin being entirely ignored. The other facts of vertebrate development, as we have noted them in our reading of the book, are in consonance with recent teaching.

Most of the illustrations are selected from reliable sources, and the few original ones are excellent in didactic value. We cordially commend the book to beginners in embryology and to students of the subject generally.

Diseases of the Intestines. By Dr. I. Boas, Specialist for Gastrointestinal Diseases in Berlin. Second Revised and Enlarged American Edition, Translated by Permission from the German, with Special Notations and Additions, by Seymour Basch, M. D., New York. With 48 Illustrations. New York and London: D. Appleton & Co., 1904.

The translator has taken advantage of the preparation of the second American edition of this work to include brief chapters on dysentery, syphilis, and actinomycosis of the intestines, as well as to make such corrections as were necessary. These new chapters serve to make the work more complete and useful for both study and reference, and we can repeat the commendation we gave of the first American edition.

Die Therapie der Magen, Darm und Konstitutions-Krankheiten. Ein Leitfaden für Studierende und Aerzte. Von Dr. Gaston Graul, ehemaliger Assitent des Herrn Geh.-Rates v. Leube, Besitzer und Leiter einer Privatklinik für Verdauungs und Stoffwechsel-Krankheiten in Bad Neuenahr. Würzburg: A. Stubers (C. Kabitzsch), 1904. Price, $3.60.

In this book of 235 pages is presented a trustworthy guide to the treatment of diseases of the stomach and intestines, with chapters on diabetes, obesity and gout. The limitations which the author has chosen to impose upon himself have impaired somewhat the value of the sections relating to the therapy of the stomach. Modern methods of treatment of this organ are so intimately connected with elaborate diagnostic technics and symptomatology that it does not seem possible to consider treatment alone without some sacrifice of clearness. The teachings of Ewald, Boas, Leube, von Noorden, and Naunyn have been carefully studied, and the author has succeeded in presenting in an attractive form a concise but sufficiently thorough exposition of his subject. Exact directions are given for the carrying out of dietetic and physical methods of treatment, and their superiority to drugs is properly emphasized.

The chapter on diabetes is especially to be commended. This obscure condition generally comes under the care of the family physician, and it may be doubted whether in all cases he has kept pace with the progress which has been making in recent years toward a better understanding of the disease. Too often his diagnostic methods are limited to a more or less perfunctory qualitative examination of the urine for glucose (usually with Fehling's test), and to the patient is given the familiar printed diet list of articles "permitted" and "forbidden." Such routine methods are to be discouraged. The diet is often unnecessarily rigorous, and the regulation of the quantity of carbohydrates should be carefully adapted to the needs of the individual patient. The urine should be examined for acetoacetic and beta-oxybutyric acids, and for acetone. The relation of these substances to diabetic coma and their practical importance as factors in prognosis should be more generally appreciated than is now the case.

PUBLISHERS' ANNOUNCEMENTS.

MESSRS. D. APPLETON AND COMPANY, New York:

Appleton's *Medical Dictionary*, an illustrated dictionary of medicine, a book of 2,000 pages. Late in the summer a new work on *Clinical Diagnosis*, by Dr. Francis Carter Wood, of the College of Physicians and Surgeons, New York; also a new work on *Normal Histology*, by Dr. Jeremiah S. Ferguson, of Cornell University, New York.

BOOK AND MAGAZINE NOTES.

Being Done Good (the BROOKLYN EAGLE), by Edward B. Lent, is welcome as an admirable specimen of genuine American humor. Detailing the experiences of a sufferer from chronic rheumatism, the book describes all possible treatments from the orthodox to the purely superstitious. Physicians cannot but enjoy the view of the profession by a clever and irreverent patient who withal is respectful to broadminded advisers. It took courage to describe the Turkish bath after Messrs. Twain and Simeon Ford had paid their respects to it, but Mr. Lent emerges triumphant from this capital test, and the rest of the book is on an equally high level. Our praise can hardly go further.

Archives of the Röntgen Ray, Volume VIII, No. 48, comes from the Rebman Company. Articles on cancer, lupus, chilblains, nævi, and microorganisms are luminously treated, and the skiagraphic plates are beautiful. The subscription price is $4.00 per annum.

It would be hard to imagine a more useful book, apart from medical works, to the country doctor than *The Fat of the Land*, by Dr. John Williams Streeter. To those city doctors to whom such a delightful climax to their practice may be vouchsafed as was to the writer of this book, it will prove perhaps still more valuable. All other classes of physicians will read the work with pleasure, for it breathes the air and scents the earth of the country. Dr. Streeter recounts his hero's early dream of an ideal farm, his refusal to allow his son to study at an agricultural college, lest the latter's intense practicality might rend the delicate fabric of the vision, and the final realization of his hopes. We regret to note one drawback to the story; this lucky farmer had a goodly sum of money to start with.

Peabody's Pedigree, by Dr. William S. Birge, in the entertaining August number of Young's Magazine, seems to be an early effort of a writer with a genuine story telling gift. Other stories in the number are extremely torrid for this weather.

We have received the first number of The Monthly Bulletin of the Arkansas Medical Society, published at Little Rock, on June 15, 1904. It contains medical news of the State, personals, etc., and will prove an interesting and valuable publication to members of the society. Dr. C. C. Stephenson, of Little Rock, is secretary of the committee on publication, and will be glad to receive items suitable for the columns of the Bulletin.

The Century for July contains the fourth instalment of *The Youth of Washington*, by Dr. S. Weir Mitchell. Dr. Mitchell's knowledge of the psychology of the female aboriginal mind, or what appears to be a convincing knowledge, may be attributed, we suppose, to his study of those patients whose successful treatment brought him professional fame; *varium et mutabile, semper fœmina.*

BOOKS, PAMPHLETS, ETC., RECEIVED.

Wurmfortsatzentzündung und Frauenleiden. Von Dr. THEODOR LANDAU, Berlin. Berlin: August Hirschwald, 1904.

Uric Acid. An Epitome of the Subject. By ALEXANDER HAIG, M. A., M. D. Oxon., F. R. C. P., Physician to the Metropolitan Hospital and the Royal Hospital for Children and Women. Philadelphia: P. Blakiston's Son & Co., 1904. [Price, $1.00.]

Medical and Surgical Report of the Presbyterian Hospital in the City of New York. Vol. VI. January, 1904. Edited by ANDREW J. MCCOSH, M. D., and W. GILMAN THOMPSON, M. D.

The Summer Diarrhœas of Infants. Their Ætiology, Pathology, and Treatment. By H. ILLOWAY, M. D., Formerly Professor of Diseases of Children, Cincinnati College of Medicine and Surgery; Formerly Visiting Physician, Jewish Hospital, Cincinnati, etc. New York: E. R. Pelton, 1904. [Price, $1.00.]

The Clinical Study of Blood Pressure. A Guide to the Use of the Sphygmomanometer, in Medical, Surgical, and Obstetrical Practice, with a Summary of the Experimental and Clinical Facts Relating to the Blood Pressure in Health and in Disease. By THEODORE C. JANEWAY, M. D., Lecturer on Medical Diagnosis, University and Bellevue Hospital Medical College, and Visiting Physician to City Hospital. New York city. New York and London: D. Appleton & Co., 1904. [Price, Cloth, $3.00.]

Consecrated Lives. By ELBERT HUBBARD. East Aurora, N. Y.: The Roycrofters, 1904. [Limp Leather, hand tooled, silk lined, Price, $2.00.]

The Philistine for July. East Aurora, N. Y.: The Roycrofters, 1904. [Price, 10 Cents.]

Swedenborg. By ELBERT HUBBARD. East Aurora, N. Y.: The Roycrofters, 1904. [Price, 25 Cents.]

Being Done Good. By EDWARD B. LENT. With a Foreword by CHARLES M. SKINNER. Brooklyn-New York: The Brooklyn Eagle, 1904. [Price, $1.25.]

The Day Before Yesterday. By SARA ANDREW SHAFER. New York: The Macmillan Company, 1904. [Price, $1.50.]

Railway and Other Accidents, with Relation to Injury and Disease of the Nervous System. A Book for Court Use. By ALLAN MCLANE HAMILTON, M. D., F. R. S. E., Late Clinical Professor of Mental Disease in Cornell Medical College; one of the Consulting Physicians of the Manhattan State Hospitals, etc. With 15 Plates, Two Superimposed Charts, and 36 Illustrations. New York: William Wood & Co., 1904. [Price, $3.50.]

Golden Rules of Anæsthesia. By R. J. PROBYN-WILLIAMS, M. D., Senior Anæsthetist and Instructor in Anæsthetics at the London Hospital, Lecturer on Anæsthetics in the London Hospital Medical College, etc. "Golden Rules" Series No. XIV. Bristol: John Wright & Co. London: Simpkin, Marshall, Hamilton, Kent & Co., Lim. [Price, 1s.]

The Meaning of a Modern Hospital. By W. BRUCE CLARKE, M. A., M. B., Oxon., F. R. C. S., Surgeon to St. Bartholomew's Hospital. London, New York, and Bombay: Longmans, Green, & Co., 1904. [Price, 1s.]

Clinical Reports. By the Surgeons of The New Amsterdam Eye and Ear Hospital, for 1903.

Beiträge zur Klinik der Tuberkulose. Unter Mitwirkung der Herren Dozent Dr. ARNSPERGER, Professor Dr. BETTMANN, Hofrat Professor Dr. FLEINER, Dozent Dr. GAUPP, Professor Dr. HAMMER, Dozent Dr. HEGENER, Professor Dr. v. HIPPEL, Dozent Dr. JACOBY, Professor Dr. JORDAN, Professor Dr. JURASZ, Professor Dr. MAGNUS, Dozent Dr. MARSCHALL, Dozent Dr. NEHRKORN, Professor Dr. PETERSEN, Professor Dr. SCHOTTLANDER, Professor Dr. SCHWALBE, Dozent Dr. SIMON, Dozent Dr. SOETBEER (Greifswald), Professor Dr. STARCK, Dozent Dr. VOLKER, Professor Dr. VULPIUS. Herausgegeben von Dr. RUDOLPH BRAUER, a. o., Professor an der Universitat Heidelberg. Band II. Heft 4: Tendeloo, Prosektor Dr. N. Ph., Einige Bemerkungen zu v. Behrings Ansicht über die Entstehung der Lungenschwindsucht. Marcuse, Dr. J., Die Wohnung in ihren Beziehungen zur Tuberkulose. Bandelier, Dr., Die Tuberkulindiagnostik in den Lungenheilstätten. Hirschkowitz, Dr. P., Zur Frage über die Natur der Grundsubstanz in den Exsudaten bei Bronchitis fibrinosa und deren Beziehungen zur Lungentuberkulose. Mit 1 Tafel. Steinert, Dr. H., Zur Kenntnis der Polyneuritis der Tuberkulosen. Würzburg: A. Stuber (C. Kabitzsch), 1904. [Price, Mk. 4.50.]

Beitrag zur Pathologie und Therapie der Pankreaserkrankungen, mit besonderer Berücksichtigung der Cysten und Steine. Von Privatdocent Dr. Paul Lazarus, Assistent der I. medicinischen Universitats-Klinik zu Berlin. Erweiterter Sonder-Abdruck aus der Zeitschrift für klinische Medicin. Band 51 und 52. Mit 17 Figuren im Text. Berlin: August Hirschwald, 1904.

Verhandlungen des Vereins Süddeutscher Laryngologen, 1894-1903. Herausgegeben im auftrage der Vereins vom Schriftführe Dr. Med. Georg Avellis-Frankfurt a.M. Würzburg: A. Stuber (C. Kabitzsch), 1904. [Price, 15 M.]

Experimentelle Untersuchungen zur Lehre von der Atrophie gelähmter Muskeln. Von Dr. Friedrich Jamin, Assistent an der medizinischen Klinik. Mit 13 Kurven. Aus der medizinischen Klinik zu Erlangen. Jena: Gustav Fischer, 1904. [Price, M. 5.]

The Division of Surgery of the Medical School of Harvard University. Report of Research Work, 1903-1904. March, 1904. Bulletin No. 11. Boston, Mass., U. S. A.

Beiträge zur Anatomie der Tubenschwangerschaft. Von Dr. Fritz Kermauner, Assistent an der Universitäts-Frauenklinik zu Heidelberg. Mit 44 Abbildungen. Berlin: S. Karger, 1904.

A Text Book of Operative Surgery. Covering the Surgical Anatomy and Operative Technics Involved in the Operations of General Surgery. Written for students and practitioners. By Warren Stone Bickham, Phar. M., M. D., Assistant Instructor in Operative Surgery, College of Physicians and Surgeons, New York; Late Visiting Surgeon to Charity Hospital, New Orleans, etc. Second revised edition. Octavo, 984 pages, with 559 illustrations entirely original. Philadelphia, New York, London: W. B. Saunders & Co., 1904. [Cloth, $6.00 net; Sheep or Half Morocco, $7.00 net.]

Miscellany.

Röntgen Ray Diagnosis of Renal Calculus.—Dr. Charles Lester Leonard (*American Medicine*, June 4, 1904) urges the importance of the determination of the presence or absence of calculi as soon as they are suspected, which object, notwithstanding the indefiniteness of the attendant symptoms, can be attained with an error of less than three per cent. by the aid of the Röntgen ray. The author analyzes the results of a study of 320 cases referred to him between March 15, 1898, and May 1, 1904. In this number calculi were found in 93 cases. Negative diagnosis is based on the axiom that "where shadows of tissue less dense than the least dense calculus are shown no calculus can escape detection." In order, however, to be accurate, the negatives must be carefully studied, and experience then increases the accuracy of diagnosis. The author concludes: "The results of the Röntgen method of diagnosis in conditions of renal lithiasis have, therefore, been the more ready differentiation of calculous conditions from other pathologic processes in the kidney and surrounding organs, by a method that is more accurate, precise, and comprehensive, while it is without danger, inconvenience, or pain, to the patient. It has facilitated operation by giving the exact size, location, and number of all calculi, thus confining the operation to the position of the calculus and decreasing the operative trauma and shock. It has freed operation from the danger of doing unwittingly a nephrectomy upon the kidney, or other serious surgical intervention, while the second kidney is the seat of calculous disease. The wrong kidney cannot be operated upon for calculus, or calculi left behind when multiple calculi are present. It affords a solution for the grave problems of complete and unilateral calculous anuria, and has rendered rational and safe a conservative expectant line of treatment that without it would be dangerous. It has already saved many patients from the dangers of operation, guaranteeing their safety until they have been restored to health. The negative diagnosis has been proved to be as accurate as the positive. It renders unnecessary any incision into the kidney during exploratory or other operations, unless there is some further visible pathologic lesion to justify it. These demonstrated results make the use of this method imperative in all cases in which calculus is suspected. After an attack of apparent renal colic, no course of treatment can be correctly or conscientiously undertaken without the determination of the presence or absence of stone. It must be employed before every nephrolithotomy or ureterolithotomy, to determine whether operation is or is not indicated, to free it from as much danger as possible, to localize and limit the operative trauma, and finally to render the operation comprehensive and complete."

Official News.

Public Health and Marine Hospital Service:

Official List of the Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the Public Health and Marine Hospital Service for the seven days ending July 7, 1904:

Currie, D. H., Assistant Surgeon. To report to chairman of board of examiners, San Francisco, Cal., July 25, 1904, for examination to determine his fitness for promotion to the grade of passed assistant surgeon.

Foster, A. D., Assistant Surgeon. Granted leave of absence for seven days from July 8th.

Holt, J. M., Assistant Surgeon. To report to chairman of board of examiners, San Francisco, Cal., July 25, 1904, for examination to determine his fitness for promotion to the grade of passed assistant surgeon.

Kalloch, P. C., Surgeon. Granted leave of absence for eight days from July 7th.

Korn, W. A., Assistant Surgeon. To report at Washington, D. C., for special temporary duty. July 5, 1904.

McIntosh, W. P., Surgeon. To assume temporary charge of the Portland, Me., quarantine station during the absence on leave of the Medical Officer in Command. July 1, 1904.

McKeen, F. H., Assistant Surgeon. Relieved from duty at New York (Stapleton) and directed to proceed to New Orleans, La., and report to the Medical Officer in Command for duty and assignment to quarters. July 7, 1904.

McLaughlin, A. J., Assistant Surgeon. To proceed to Atlantic City, N. J., for the purpose of making a physical examination of certain keepers and surfmen of the Life Saving Service. July 7, 1904.

Purviance, George, Assistant Surgeon-General. Granted leave of absence for one month from July 1, 1904, on account of sickness.

Robertson, H. McG., Assistant Surgeon. To proceed to Point Pleasant and Tuckerton, N. J., for the purpose of making a physical examination of certain keepers and surfmen of the Life Saving Service. July 7, 1904.

Spangler, L. C., Pharmacist. To report to chairman, board of examiners, Tampa Bay Quarantine, July 11, 1904, or as soon thereafter as may be determined by the chairman of the board, for examination to determine his fitness for promotion to the grade of pharmacist of the second class.

TROTTER, F. E., Assistant Surgeon. To report to chairman of board of examiners, San Francisco, Cal., July 25, 1904, for examination to determine his fitness for promotion to the grade of passed assistant surgeon.

Boards Convened.

Board convened to meet at Washington, D. C., July 6, 1904, for the physical examination of an applicant for appointment as Second Assistant Engineer in the Revenue Cutter Service. Detail for the board—Assistant Surgeon-General G. T. VAUGHAN, chairman. Assistant Surgeon A. J. McLAUGHLIN, recorder.

Board convened to meet at Tampa Bay Quarantine, July 11, 1904, or as soon thereafter as may be determined by the chairman of the board, for the examination of Pharmacist L. C. SPANGLER to determine his fitness for promotion to the grade of pharmacist of the second class. Detail for the board—Assistant Surgeon R. E. EBERSOLE, chairman. Acting Assistant Surgeon G. H. ALTREE, recorder.

Board convened to meet at San Francisco, Cal., July 25, 1904, for the examination of Assistant Surgeons to determine their fitness for promotion to the grade of passed assistant surgeon. Detail for the board—Passed Assistant Surgeon W. G. STIMPSON, chairman. Passed Assistant Surgeon RUPERT BLUE. Passed Assistant Surgeon H. S. CUMMING, recorder.

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending July 16, 1904:

ARTHUR, WILLIAM H., Major and Surgeon. Granted leave of absence for thirty days, to take effect on or about August 27, 1904.

BAILY, HOWARD H., First Lieutenant and Assistant Surgeon. Appointed assistant surgeon, with rank of first lieutenant, to rank from July 8, 1904.

BIRMINGHAM, H. P., Major and Surgeon. Detailed to attend encampment of National Guard of Pennsylvania, Gettysburg, Pa., July 23 to July 30, 1904.

BOURKE, JAMES, First Lieutenant and Assistant Surgeon. Ordered to duty with troops from Fort Sheridan, Ill., about August 1, 1904, at target range between Winthrop Harbor, Ill., and Kenosha, Wis.

BROWN, HARRY L., First Lieutenant and Assistant Surgeon. Appointed assistant surgeon, with rank of first lieutenant, to rank from July 8, 1904.

CARROLL, JAMES, First Lieutenant and Assistant Surgeon. Ordered to visit Baltimore, Md., not oftener than three times per month, to obtain material for the Army Medical School, Washington, D. C.

DAVIS, WILLIAM T., First Lieutenant and Assistant Surgeon. Relieved from duty as surgeon on the transport *Logan*, to take effect on next arrival of that transport at Manila, P. I., and will then report to the Commanding General, Division of the Philippines, for assignment to duty.

EBERT, RUDOLPH G., Major and Surgeon. Announced as chief surgeon, division staff, for the manœuvres at American Lake, Wash.

EKWURZEL, GEORGE M., First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Trumbull, Conn., and ordered to West Point, N. Y., for duty.

FREEMAN, PAUL L., First Lieutenant and Assistant Surgeon. Appointed assistant surgeon, with rank of first lieutenant, from July 8, 1904.

HUMPHREYS, HARRY G., First Lieutenant and Assistant Surgeon. Appointed assistant surgeon, with rank of first lieutenant, from July 8, 1904.

LYNCH, CHARLES, Captain and Assistant Surgeon. Detailed for duty at the encampment of the Ohio National Guard, to be held in Athens County.

MASON, CHARLES F., Major and Surgeon. Relieved from further duty at Fort Sam Houston, Texas, and assigned to duty in the office of the Surgeon-General.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending July 16, 1904:

ANGENY, G. L., Passed Assistant Surgeon. Orders of March 16th modified; ordered to duty at the Naval Station, Culebra, W. I., with additional duty with the marine detachment at that place.

BACKUS, J. H., Assistant Surgeon. Detached from the *Annapolis* and ordered home to await orders.

BISHOP, L. W., Assistant Surgeon. Ordered to the Navy Yard, New York, N. Y.

CAMPBELL, R. A., Acting Assistant Surgeon. Ordered to duty on board the second torpedo flotilla.

CRAIG, T. C., Surgeon, retired. Relieved from duty as member of a committee for fixing a standard for diphtheria antitoxine, under orders of June 30, 1902.

KEENE, W. P., Acting Assistant Surgeon. Detached from duty on board the second torpedo flotilla and ordered to the Naval Station, Port Royal, S. C.

STEELE, J. M., Surgeon. Detached from the Naval Station, Port Royal, S. C., and ordered home to await orders.

WILSON, H. D., Passed Assistant Surgeon. Detached from the *Vicksburg* and ordered home to await orders.

Births, Marriages, and Deaths.

Born.

SHUMAKER.—In Butler, Indiana, on Tuesday, May 10th, to Dr. and Mrs. W. F. Shumaker, a son.

Married.

DESSEZ—MIDDLETON.—In New York, on Monday, July 11th, Dr. Paul T. Dessez, U. S. N., and Miss Lily Middleton.

MORGAN—BENNETT.—In Nashville, Tennessee, on Wednesday, June 29th, Dr. Lorenzo Seymour Morgan and Dr. Ruth Bennett.

Died.

BAILEY.—In Carbondale, Pennsylvania, on Friday, July 8th, Dr. David Leland Bailey.

BELEW.—In Edenburg, Virginia, on Sunday, July 10th, Dr. Peter Belew, in the eighty-sixth year of his age.

BLACKFORD.—In Ringgold, Georgia, on Saturday, July 9th, Dr. W. T. Blackford, in the eightieth year of his age.

BUDDEKE.—In Memphis, Tennessee, on Monday, July 11th, Dr. I. W. Buddeke, in the fifty-third year of his age.

COOPER.—In Buffalo, N. Y., on Monday, July 11th, Dr. John Cooper, in the seventy-second year of his age.

DANIELS.—In Panama, N. Y., on Sunday, July 3rd, Dr. C. J. Daniels, of Cisco, Texas, in the eighty-eighth year of his age.

HADLEY.—In Nashville, Tennessee, on Sunday, July 10th, Dr. Robert L. Hadley, in the sixty-sixth year of his age.

HALL.—In Macon, Georgia, on Sunday, July 10th, Dr. Kennan Hall, in the forty-sixth year of his age.

HAYDEN.—In Salem, Ohio, on Sunday, July 3rd, Dr. Alfred Sutton Hayden, in the sixty-third year of his age.

JARMAN.—In Nashville, Tennessee, on Tuesday, July 5th, Dr. W. H. Jarman, in the eightieth year of his age.

McHENRY.—In Washington, Indiana, on Monday, July 11th, Dr. Van McHenry, in the seventy-sixth year of his age.

TORRANCE.—In Kansas City, Kansas, on Tuesday, July 5th, Dr. Harry S. Torrance, in the thirty-sixth year of his age.

TROWBRIDGE.—In Philadelphia, Pennsylvania, on Monday, July 11th, Dr. Richard F. Trowbridge, in the eighty-fourth year of his age.

WARD.—In Utica, N. Y., on Sunday, July 3rd, Dr. Charles G. Ward, in the fiftieth year of his age.

WILLIAMS.—In Nashville, Tennessee, on Tuesday, July 5th, Dr. James Williams, in the eighty-third year of his age.

New York Medical Journal
AND
Philadelphia Medical Journal.
CONSOLIDATED.

A Weekly Review of Medicine

Vol. LXXX, No. 5. SATURDAY, JULY 30, 1904 Whole No. 1339.

Original Communications.

THE REMOVAL OF OBSTRUCTIONS AND CICATRICIAL CONTRACTIONS OF THE NOSE BY THE PLASTIC METHOD.*

By JOHN O. ROE, M. D.,

ROCHESTER, N. Y.

Obstructions, congenital narrowing, cicatricial contractions, and occlusion of the nasal passages are so frequently met with in our daily work that it may seem superfluous to attempt a discussion of such commonplace occurrences. But as these seemingly simple maladies often tax to the utmost our patience, our skill, and even our ingenuity, in dealing with them, perhaps some suggestions regarding their treatment may not be without interest.

The anterior nasal openings are most frequently narrowed or obstructed by cicatricial contractions that have resulted from injuries or burns, or from ulcerative processes of the skin, such as syphilis, lupus, and smallpox. In some cases the atresia may be congenital.

In the anterior portion of the nose cicatricial obstructions in the form of synechiæ, the result of inflammatory or ulcerative processes, are most frequently met with. These synechiæ may occur in any portion of the nasal passages, from the vault to the floor, from the vestibule to the posterior portion of the sæptum and turbinated bodies, uniting any of the different structures normally separate.

They may consist in the adherence of the upper surfaces, occluding the vault entirely, or the lower portion, contracting the floor, or even the entire passage, or they may be limited to bands of cicatricial tissue, extending across at some intermediate place, the most frequent site being between the middle turbinated body and the sæptum.

In the treatment of these conditions, when the atresia is located at the anterior nasal orifice, dilatation by means of conical plugs, expanding bougies, or instruments, is commonly advised and employed. In the case of synechiæ in the interior of the nose, the methods employed are division or removal of the adhesion or contraction by the knife, scissors, or punch-forceps, and the interposition of a metallic, hard rubber, or celluloid plate or similar substances, or gauze or cotton, or the simple passing of a probe or sound frequently between the parts to keep them separated until the opposing surfaces are healed.

In the majority of cases the result is unsatisfactory, on account of the length of time the appliance is required to be worn to prevent a recurrence, and on account of the readiness with which the bands reform or readhesion takes place, or contractions go back to their old conditions after these attentions are discontinued.

In all operations within the nasal passages the important precaution must be taken to avoid wounding opposite surfaces, since in some cases synechiæ have followed or have been caused by operative procedures in the nose. This accidental complication can be avoided by operating on one side of the passage only at one time, so as to maintain the mucous membrane of the opposite wall intact until the site of the operation is thoroughly healed before operating upon the opposite wall, should the latter be necessary. This is very essential in all cases in which the surfaces are not so widely separated, but that the formation of a band is possible after the operation.

In order to secure this condition after operations for the removal of synechiæ or other contractions of the passages in which opposing raw surfaces are unavoidable, it occurred to me that the denuded surface on one side might be covered with skin or mucous membrane or healed tissue taken from the surface of the contraction or band or wall of the passage, so that reunion of the surfaces would be impossible.

This plastic method of dealing with these conditions in the interior of the nose was suggested by my subcutaneous plastic work, that has so much interested me in connection with the correction of nasal deformities. This method I have now employed for a considerable time, and the excellent results obtained have induced me to present it for your consideration.

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* Read before the twenty-fifth annual meeting of the American Laryngological Association, Washington, D. C., May, 1903.

Before I employed this method the plan that gave me the best results in the treatment of synechiæ was to touch one side with the galvanocautery after the band had been cut away, for the reason that cut and cauterized surfaces do not readily grow together. In the case of slender bands this method is simple and effective, but where the cut surfaces are extensive and the passage narrow, the method of covering one side with mucous membrane is far superior. In each case, however, the method must be modified to meet the requirements of the conditions present.

In the treatment of contracted conditions of any portion of the nasal passages, whether located in the vestibule or elsewhere, if we attempt to enlarge the passage by simply cutting out the inside of the contraction, we not only fail to obtain the desired result, but the effect is to increase the difficulty by reason of diminishing the amount of skin or mucous membrane on the interior of the ring, so that when healing takes place the opening becomes smaller than before the operation. In dealing with such contractions, therefore, not only must we increase the extent of skin surface or mucous membrane, but we must interpose on one side of the passage at least an unbroken surface of skin or mucous membrane to prevent the union of the surfaces. This is particularly true if the contraction is located in one of the angles of the passages; for if there is no such area of sound skin or mucous membrane at the junction of the two sides, to arrest the reunion of the surfaces (as is necessary in the case of webbed fingers to prevent their reunion when separated), nothing can prevent the surfaces from gradually growing together again, no matter how widely separated by plugs or dressing for an indefinite period of time they may be.

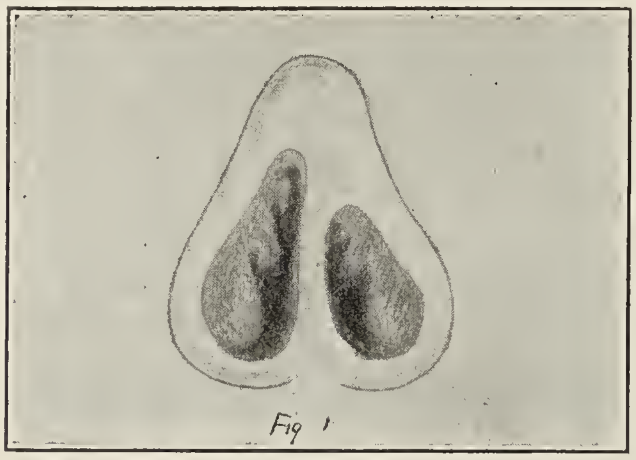


FIG. 1.—Contracted condition of upper portion of opening and vestibule in atresia of anterior nasal passage.

In order to explain more clearly the plastic method employed for the correction of these different conditions, I have attempted to show by these diagrammatic illustrations the different steps in the operation.

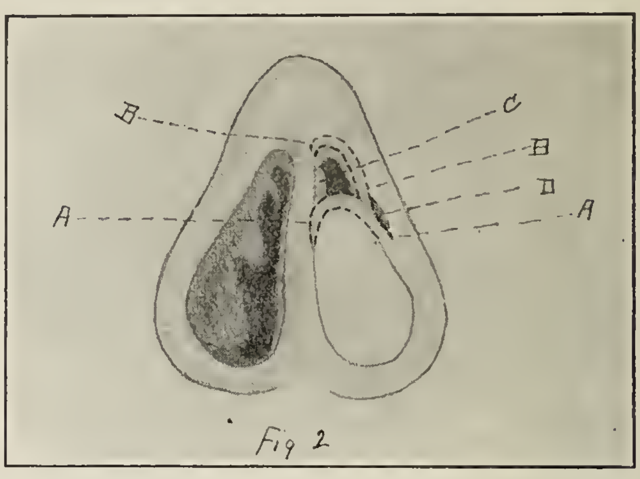


FIG. 2.—Line of incision for correcting this condition. A A. Method of making flap of skin for apex after removal of redundant tissue. B B, Incision for removal of redundant tissue; also shows flap turned up into apex of opening. C. Flap from portion of redundant skin turned back to cover denuded border.

In atresia of the anterior nasal passage Figure 1 represents a contracted condition of the upper portion of the opening and the vestibule.

Figure 2 shows the line of the incisions for correcting this condition.

The incision A A represents the method for making the flap of skin to be turned up into the apex of the opening after the redundant tissue has been removed.

The line B B shows the incision for the removal of this tissue, and also represents the flap after it has been turned up into the apex of the opening and stitched there by very fine horsehair sutures.

C represents the flap made from a portion of the redundant skin removed and turned back to cover the denuded border at that point. This flap is also stitched in place by fine horsehair sutures.

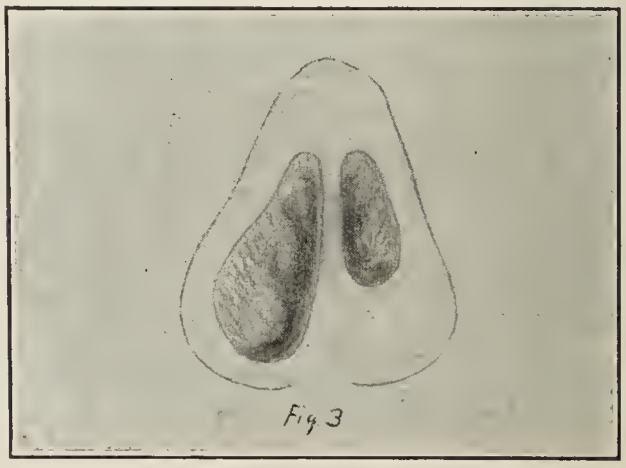


FIG. 3.—Atresia occupying lower portion of vestibule. A A. Incision for flap to fill in lower border after removal of redundant tissue. B B, Flap in place. C, Portion of skin turned inward to cover denuded wall.

In this operation the only portion of the opening uncovered by skin or mucous membrane is the portion of the sæptum at A, where the end of the flap has been removed. This is, however, of such limited extent that the skin and mucous membrane readily spread over it, requiring no further attention.

Figure 3 represents a condition of atresia, occupying the lower portion of the vestibule, which is dealt with in a manner similar to that occupying the upper portion of the vestibule, just described.

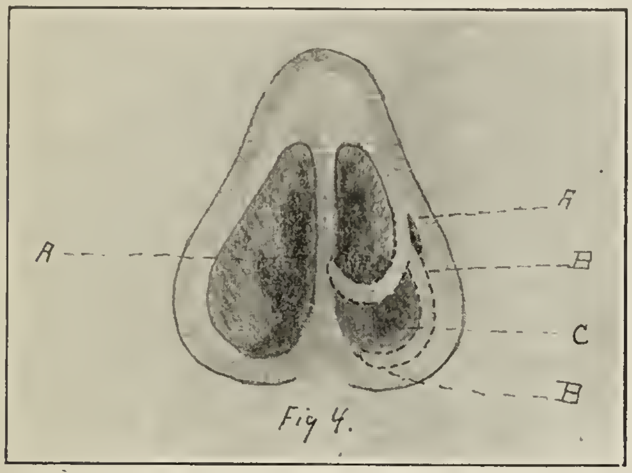


FIG. 4.—Method of operation for correcting the condition shown in Fig. 3.

The line A A, Fig. 4, shows the incision for raising the flap, to fill in the lower border when the redundant tissue has been removed.

B B represents the flap in place, and C the portion of skin turned inward into a place prepared for it, so as to cover the denuded wall at that point.

These flaps are also stitched into place with fine horsehair sutures.

It is needless to say that the whole operative procedure should be done with strictly aseptic precautions. Sometimes the coaptation and union of the flaps is facilitated by gentle pressure from the packing of the nostril for a few days, and the aseptic condition of the nostril is also thereby more easily maintained. The packing employed should be cotton previously soaked in a 1 in 3000 bichloride solution, and squeezed nearly dry before inserting. This is far preferable to gauze, which, owing to its porosity, soon becomes saturated with secretions or discharges that quickly decompose and become septic.

The operation for the removal of synechiæ is performed in a similar manner, by utilizing the mucous membrane of the band for covering the denuded surface on one side of the nostril where the band has been cut away.

When the synechia is limited in extent or thickness, a flap from one side, preferably the upper side, is sufficient to cover the surface where one of the ends of the band has been cut away. The flap is best raised with a small knife similar to a tenotomy knife with its point curved on the flat and double edged, thus enabling the operator to go part way around the band with the knife, and thereby secure a broader flap. When this is done the remaining portion of the band had better be removed before either end of the flap is cut loose.

Figure 5 represents synechiæ between the middle turbinated bodies and the sæptum and the method of making the flaps for covering the denuded surfaces on one side of the passages after the band has been cut away.

On the right hand side of the drawing is shown a condition in which but one flap only (preferably from the upper side of the band) is required for covering the denuded space on the sæptum.

A B shows the line of incision for making the flap. A C shows the flap applied against the sæptum where the band has been cut away at D D.

On the left hand side is represented a more extensive synechia, in which the flap from both the upper side E F and the lower side G H is required to cover the denuded surface on the sæptum. E G shows the two flaps placed against the sæptum and stitched together at I with fine horsehair sutures after the synechia has been cut away at J.

The side to which the flap should be left attached depends upon the condition and position of the parts. If the sæptum is not bent in this direction and sufficient underlying tissue can be removed to make a place for the flap, it is far preferable to place it on the sæptum; if not so placed, it should be placed against the turbinated

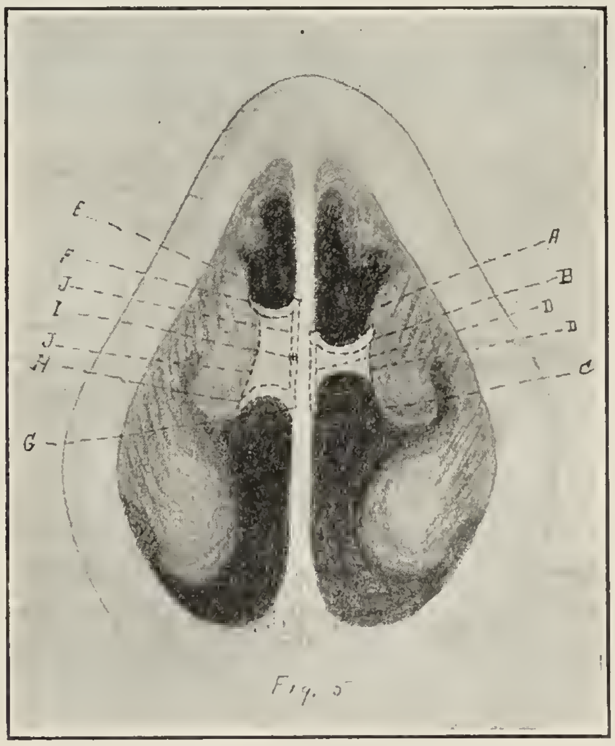


FIG. 5.—Synechiæ between middle turbinated bodies and sæptum, showing method of making flaps to cover denuded surfaces on one side of the passages after the bands have been cut away.

body or the outer wall of the nose, as the case may be.

By the turning of the flap downward instead of upward it is much more readily held in place, and its union can be very much facilitated by lightly packing the nostril or by inserting a Simpson's Bernays intranasal plug. In using such a plug, one of a size suited to exert only very gentle pressure when expanded should be very carefully selected, in order to avoid cutting off the circulation in the flap.

In those cases in which the band is very wide and covers a large extent of surface, a flap taken from one side of the band is insufficient unless the incision is carried high up on the opposite wall. In this case, flaps should be taken from both the upper and lower sides of the synechia, which, after the synechia has been removed, can be cut loose at one end, turned in, and stitched in place with fine horsehair sutures. Simpson's Bernays intranasal plug is then introduced as in the other cases. These stitches can readily be inserted with the small curved needles which I have devised for this and similar work, held by a handle into which different size needles can be inserted. They are firmly held in the handle by a clamp extending through it, which is very easily and quickly tightened by a screw at the posterior end. These needles which I show you here, vide Figure 6, I have found very serviceable for intranasal plastic work. They have a double spiral curve, so as to permit the insertion of the stitch at right angles to the shaft of the needle and in a very small space. They are made for me in a very admirable manner by George Tiemann & Co., 101 Park Row, New York.

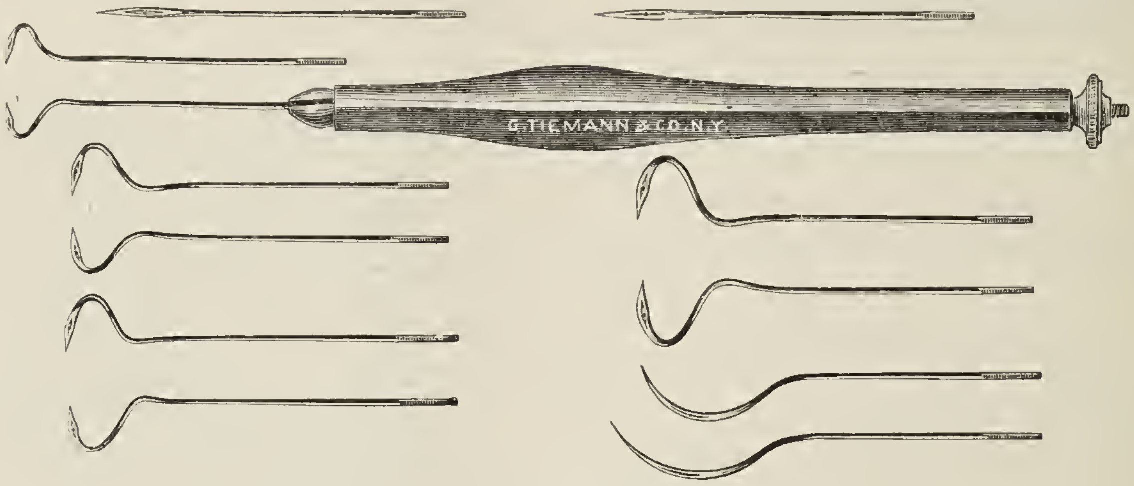


Fig. 6.—Needles for intranasal plastic work.

In the treatment of synechiæ occupying the vault of the passage, the plan of operation for the covering of one side with mucous membrane is similar to that for restoring the skin to one side of the vault of the vestibule in the first case described. This operation, however, is made more difficult, owing to the normal narrowing of this portion of the passage. The flaps in this region are usually best held in place with packing carefully applied or with a small, properly fitted Simpson's Bernays plug or tampon. In the lower portion of the passage, owing to the wider and more ample space, stitching the flaps is readily done, although careful packing of the passage ordinarily is quite sufficient to hold the flaps in place until united.

This plastic method is of special service in preserving the mucous membrane when performing the various other operations in the nose.

In the removal of hypertrophied bodies and bones, a flap of the mucous membrane, sufficiently thick to be certain of retaining its vitality, is first raised from below upward; it is best made, however, by transfixing the tissues and cutting from above downward. The enlargement is then removed and the flap allowed to fall, or put back in place, covering the wound.

In case of bony or cartilaginous spurs or other excrescences on the sæptum, the periosteum or perichondrium, as the case may be, is raised from the part to be excised and after excision the membrane is replaced, covering the denuded surface. The perichondrium or periosteum is most easily raised by first simply incising it over the anterior portion of the excrescence; then with a slender periosteum elevator lifting the membrane by gently crowding the instrument backward along under it close to the cartilage or bone. The first incision, however, had better be small, just sufficient to admit the instrument, which prevents it from slipping. After raising the membrane along the central portion of the excrescence, the process can be extended over the entire part to be removed and the flap cut loose below. In some cases, the excrescence can be removed through this incision alone without cutting the flap loose.

The above described method of raising and preserving the perichondrium and periosteum, and likewise the mucous membrane, is also of special service in the operation for the so-called submucous resection of the sæptum. After these operations, the flap or flaps are put back in place, stitched if necessary, and if maintained in an aseptic condition, heal very speedily, leaving no open wound for granulations or synechiæ to spring from.

In this connection I will mention a simple but effective operation for collapsed alæ, so frequently the cause of obstruction of the anterior nasal openings.

Collapsed alæ may be caused by a variety of conditions. The most frequent are paralysis of the dilating muscles of the alæ and a deformed and collapsed condition of the lateral shield cartilage. Sometimes a bent or dislocated triangular cartilage will so obstruct the entrance of the nostril that the current of air on inspiration will suck the ala in against the sæptum.

A normally expanded condition of the ala can be made by simply incising the shield cartilage from the inside through to the skin at the point of the greatest depression, and removing a small wedge shaped portion of the cartilage with the base of the wedge toward the interior of the nose. Then by stitching these edges together with one or two horsehair sutures, as the case may require, the ala is given the outward bulge characteristic of a normal nose.

LENTIGO: UNILATERAL DISTRIBUTION: REPORT OF A CASE.

By JOHN IRVINE McKELWAY, M. D.,

BINGHAMTON, N. Y.,

ASSISTANT PHYSICIAN, BINGHAMTON STATE HOSPITAL.

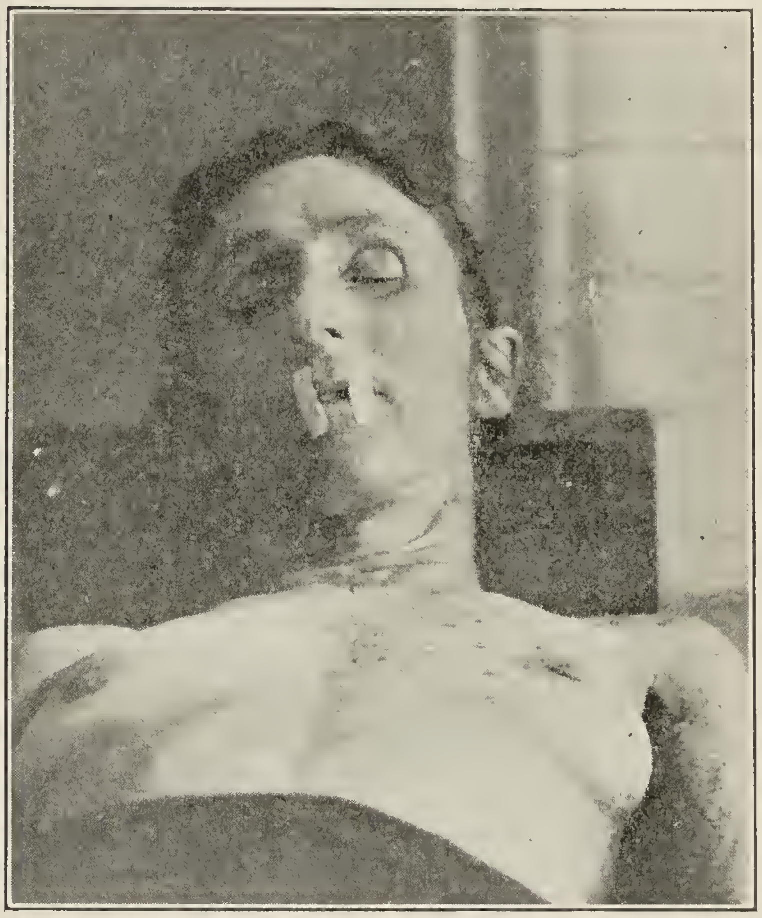
The appearance of lentigo, or freckles, is so well known that no elaborate description need be attempted in this article. It is interesting, however, to note that the condition is usually found in individuals of a light complexion and having light, especially red, hair. The exciting cause is generally exposure to the rays of the sun, hence the regions most commonly affected are the face, backs of the hands and forearms. The distribution is generally bilateral, although Hyde states that "rare instances are recorded in which the symptoms exist only upon one side of the body." The condition generally occurs during the summer months, but may persist during a lifetime. Freckles generally appear as circumscribed areas of pigmentation, rounded or irregularly shaped, and varying in size from that of pin head to that of a pea or a small bean; varying in color from yellow to brown, and in some exceptional cases, even to black.

The case reported herewith is interesting, because of its many departures from the conditions usually found, and especially because of its well marked unilateral distribution.

S. B., female, aged thirty-seven years, a domestic by occupation, was admitted to the Binghamton State Hospital on August 7, 1894. Although she had the appearance of having been born in a foreign country, or at least of being of foreign parentage, it was positively ascertained that both she and her parents were born in Pennsylvania.

Prior to her admission to this hospital she had been for one year in an institution for feeble minded women, in Newark, N. Y. Nothing further is known of her history before that time.

On admission, it was noted that the patient was a poorly nourished young woman, of a swarthy complexion, and with extremely dark hair and dark eyes. The heart sounds were clear, but the pulse was irregular and rapid. The other organs were apparently normal.


Dr. McKelway's case of unilateral lentigo.

The entire left side of the body, from the roots of the hair to the knee, was more or less thickly covered with freckles, varying in size from that of a pin head to that of a pea; a few were even larger. No freckles were to be found to the right of the median line, on her face, chest, or abdomen, or right thigh. The areas of pigmentation were largest and most numerous on her left breast and chest, although there were many on her left cheek, arm, forearm, and the left half of her abdomen. There were a number on her left thigh, especially on the inner surface. The patient died of pneumonia on January 3, 1904.

The case is of interest because of (1) The unilateral distribution of the disease; (2) its occurrence in a woman with dark complexion and dark hair and eyes; (3) the length of time that the condition had existed (nine years and a half at least) without any appreciable change in the intensity of the pigmentation; and (4) the fact that she was not a patient who spent much time out of doors, and was therefore exposed but little to the sun.

The accompanying photograph was taken after her death, and shows the distribution of pigment on her left breast, chest, and arm, and, to a less degree, that on her face and neck.

SOME NOTES ON RIGGS'S DISEASE AND ITS TREATMENT.

By GEORGE F. SOUWERS, M. D.,

GERMANTOWN, PHILA.

At the beginning of this article the author wishes to disabuse the reader's mind of the idea that anything particularly new or startling is offered in treatment, pathology, or aught else, in regard to the disease, the name of which appears above. The *raison d'être* of the paper is based upon two premises, the truth and existence of which will be admitted without cavil by most practitioners of medicine. First, a student may attend all the lectures, quizzes, and clinics, of his college course, graduate in a creditable manner, and yet have heard or seen almost nothing (excluding strictly surgical conditions), of diseased states of the mouth and teeth. To the man whose destiny it is to practise in or near large cities or towns, this lacking knowledge is, perchance, not so important, as he can and commonly does, refer such cases to, or privately gets advice from, the dental expert. But to those to whom such convenience is not readily accessible the want of information on the subject is a heavy handicap for both their own and their patient's benefit. The city man is the one to whom the second premise applies—namely, that, since most persons afflicted with diseased states in and about the buccal cavity—particularly when adjacent to the dental arches, consult a dentist and accept the necessary treatment from him, they thus prevent, *nolens volens*, a medical man from coming in contact with the necessity of acquiring knowledge and experience concerning a most painful, annoying, and, at times, even dangerous class of maladies, and of how to handle them. Hence, the two classes of doctors stand about on even ground.

The writer has never practised the gentle art of dentistry, but in over a quarter of a century's practice of medicine the want of correct dental information, both by other physicians and surgeons and by himself, has been apparent to him, and has forced him to the conclusion that it would be well if all medical students were compelled to attend certain of the lectures, clinics, etc., forming part of the dental course. In view of the four, and soon to be five, years' sessions now required by the best schools of the country, this requirement could easily be accomplished, particularly by those colleges now forming sections of universities and having also dental departments attached. In substantiation of the need of such practical knowledge we can summon to recollection a number of instances where we have heard physicians advise the immediate extraction of a tooth undergoing abscessed conditions. While such counsel was based on the best judgment of what should be done by those giving it, as one would suggest the plucking out of an offending eye under certain pathological conditions of that organ, the practical result of its following out would or might result most disastrously; for it is conceded by all authorities, we believe, that the removal of a tooth under such surroundings is at times followed by the most violent inflammation of neighboring structures. It is a rule to evacuate the abscess, reduce the attendant inflammation, then, when everything is quieted and affairs have resumed their normal course, if necessary, and if no other resource can possibly make of the tooth or its root a useful portion of the economy, to proceed to extraction. If the tooth is in the preabscess stage, denoted by pain, a feeling of elongation and a sensation as though it were swollen and being crowded by its fellows, these symptoms being due to the formation of gas in and above the root, the proper procedure is to bore a hole into the root canal, thus affording an avenue of escape for the gas. In doing this it must be remembered that some teeth have more than one root, and hence, one must be watchful that all the root canals are opened, as otherwise the really offending one will be overlooked and thorough relief not obtained. If the tooth is a filled one, it is not requisite to remove the filling; the drill may be directed through it to the point desired. If it has not been filled, avoid, as far as circumstances will permit, the making of an opening on the grinding face of the tooth on account of mastication, etc. The tunnel in the filling can afterward be refilled, when, after proper treatment, the stormy condition has passed away. It occasionally occurs that if the case is seen almost at its inception, it may not be necessary to ream the offending grinder; counter irritation applied on the gum over the root, a pledget of absorbent cotton wet (but not dripping) with tincture of iodine, or a mixture of chloroform, tincture of aconite, and iodine, equal parts, brushed over the locality spoken of (the lips or cheeks being held away from the site of application, in order to avoid the irritant), and allowed to remain for a few minutes while the excess is removed by a little water, constitutes a method of relief. It is, however, a very uncertain one. After the gas has been evacuated, a mere thread of absorbent cotton, wet with carbolic acid, oil of cinnamon, or other good disinfectant, should be carried up into the canal by means of a fine wire, if no suitable instrument is at hand, and allowed to remain, the wire, of course, being removed. Care must be taken that the canal is in no way occluded by the cotton; free drainage is absolutely the result aimed at. The remainder of the treatment had better be confided to the dentist. We are detailing this matter for those whose practice is situated in rural localities, where regular aid is not at hand, and the doctor must be temporary dentist as well as doctor. At the gas formation stage, which at times will be extended over days —even as long as two weeks we have known it to be—patients will consult you for what they will describe as neuralgia of the teeth, or cold settled in the jaws and teeth, the actual pain being often referred to a particular tooth showing no sign of any abnormal state. They will inform you that the pain disappears very nearly during the day, but that it recurs about the same hour at night, gets progressively worse for a number of hours, then gradually subsides. Be not deceived in your diagnosis; discount largely the neuralgia hypothesis; tap gently the grinding surface of each tooth, and you will probably find one, often least suspected as the source of trouble, abnormally sensitive to gentle tapping. This, and the fact that a gas forming root or tooth begins its march of pain nightly and nearly or at the same hour, is almost prima facie evidence that neuralgia can be excluded and that a dying nerve or trouble in the root canal can be located as the matter to be treated. At the gas formation period the pain may become almost distracting; it even at times seems to exceed that experienced when pus formation has commenced and is slowly working its way to the surface in search of an outlet. To what desperate measures a man will proceed for relief was well illustrated to us some years ago in the ward room of a United States vessel, then at League Island Navy Yard. One of the officers remarked that, "as he had a toothache he would go up to the city and consult a dentist." An officer of the marine corps congratulated the sufferer on the fact that he was in port and not at sea, and then told us of his cheerful little experience with a filled tooth, which took unto itself an abscess when he and the molar were about five hundred miles out on the Atlantic. Having applied various drops, etc., without effect, his anguish, about two in the morning, drove him to an original and heroic remedy. With a corkscrew he attempted to extract the tooth, and while he did not succeed in the fell purpose he luckily bored far enough to open the canal. The gentleman admitted that he had never been able to solve the profundities of a corkscrew being a sovereign remedy for toothache, but he had no desire personally to experiment further.

When one tooth only is the seat of abscess, is cured by proper treatment and gives no further trouble, it is probable that only a passing circumstance has induced the condition; but where there is a periodical recurrence of root abscesses, especially in filled teeth, first one, then another, falling under the baleful influence, and particularly where teeth that have been filled for many years and never given trouble become also involved in the morbid process, it is advisable that a careful scrutiny be made anticipatory of the serious evil that may be about to follow, or indeed may be insidiously at work already. The writer bases this statement on painful, personal realization, and is convinced from a study and review of his own case that recurring abscesses of the teeth, when one is otherwise in usual good health, is a precursor of Fauchard's, or as it is better known to English and American dentists, Riggs's disease of the alveoli. While abscessed teeth are concurrent often when Riggs's disease has openly expressed itself, and so excite no special comment, it would be well to suspect what is about to happen when coming events thus cast their shadows before, and to institute proceedings accordingly. It may be well to state here that as the average patient has a dread of the knife, especially when nervously unstrung from pain and loss of sleep, there is a method of reaching the pus while yet it is far up toward the apex of the root, and hours of suffering may be spared which otherwise the patient must endure whilst overlying structures are working out their own salvation. A twist of absorbent cotton, about the size, say, of ordinary sewing thread, saturated with carbolic acid, introduced close to the neck of the tooth and gently carried up on a very fine probe or wire, between the neck and gum, will give the result desired with but little if any pain. Where it is a debated question as to the presence or absence of pus, the use of this method will generally solve the query; practically you are employing the old time exploring needle sans danger of sepsis, and indeed this agent may in the same way be used at times for the same purpose in other localities. A dentist's broach, which is a fine wire, tempered and having slight serrations, is the best instrument, but if not at hand, then the probe or wire may be substituted.

As to the exciting cause of Riggs's disease, various opinions have been, and still are held, but we do not propose at this time to delve into the question to any greater extent than to state what experience, and only a limited one, has shown us. In the past three years the writer has seen five cases of the trouble, three being in females, two in males, the ages running from about twenty-five to forty-three, conditions varying from violently acute to, if we may so say, semichronic. These people were all comfortably situated, hence the effects of poverty may be discounted as a causative factor. Physically, all were in seemingly usual health other than the local manifestation. None had ever suffered an attack of acute inflammatory rheumatism, but four of the five had known the pleasures of recurring rheumatic twinges for periods varying from a number of years to about one year. One of this number came of a distinctly rheumatic family, his brother being a complete wreck from the acute form of the malady. The fifth case showed no sign of rheumatic tendencies till a violently acute attack of Riggs's disease was brought under control, when rheumatic pains developed in one wrist joint. This patient, while absent in another city, concluded that she had taken a slight cold, the effects of which were felt in an annoying general, though comparatively slight, soreness of the teeth and gums, the soreness being remittent in character, and at times totally disappearing for days. This condition continued for about four weeks, during the first fortnight of which being away, she did nothing practically to obtain relief, the rest of the month being employed in trying simple remedies suggested by friends (who have always known some one, who knew some one, who was told by somebody else, that this was the surest cure on earth for any misery the victim happens to have, and the victim swallows or does it with the blindest faith). It is remarkable to us what profound knowledge the average individual has of matters (not only medical) about which he knows little or nothing, and how dead sure he is as to the trustworthiness of his information. So often has the author of this screed encountered it that he has crystallized his philosophy of the matter into the aphorism "that the knowledge of ignorance is something wonderful;" it certainly surpasses the learning of a wise man—in a way.

At the end of the period spoken of came the culmination of affairs, and had not some former intercourse with Riggs's disease made us somewhat wary of buccal trouble, we fear greatly a diagnosis and proper treatment would have been problematical as to correctness, as the facies presented resembled nothing we had come in contact with in twenty-five years of medical practice. The whole of the buccal cavity, excepting the gums, but including the palatal arches and pharynx, was studded by a pustular eruption, the pustules varying in size from a pin's head to a millet seed. The gums swollen and of a maroon red in color, but not pustulated, projected in small teat like elevations between the teeth and bled upon the slightest touch. The pain, of a burning, stinging character, was agonizing, while at the same time each tooth seemed to vie with the others in attaining the perfection of tenderness. This whole state of affairs made its advent in one night and the following day we were called. Pain, of a neuralgic character, darting into the ear from the throat, and also about the eyes and frontal bone marked the advent of the same day. Recovery took place under treatment.

But therapeutics we will discuss later under one general head. Ordinarily the malady makes its approaches insidiously and does considerable damage before its annoyances cause the patient to take professional advice. Recurring tenderness of the teeth, making mastication uncomfortable, accompanied by slight soreness of the gums, is referred to the taking of slight colds, or to the stomach being out of order, and the first reason for the seeking of counsel is often that the individual has noticed the receding of the gums from certain teeth, or that the use of the toothbrush, or even slight pressure by the fingers, occasions bleeding; or, again, the occurrence of pain, in character resembling that experienced when exposed dental nerves are subjected to varying temperatures, when food or fluids of slight coolness, or, on the contrary, lukewarm or of any degree of heat beyond, and having its habitat on the lateral surfaces of the teeth, will forcibly notify the sufferer that action of some kind is essential. Even sudden changes in atmospheric temperature, as in going from a warm room into a cold entry, the mouth being open, will start an attack of aching. Each mouthful of food marks the beginning *de novo* of the torture which slowly, as a rule, subsides until another attempt at eating is made. The hungry wretch passing through the ordeal is divided against himself; he needs the sustenance badly but his dread of taking it, knowing the consequences, is a feeling equally keen; and as a result he becomes an irritable, nervous wreck temporarily.

Those cases which do not attain to this point of anguish have more or less a sensation of burning and stinging situated along the gingival border; in the upper jaw the feeling is particularly marked in the rugæ posterior to the incisors. On examination the mucous membrane is found red, shining, swollen, and appears to hang in folds; and, to the patient, when impact is made by the tongue, suggests that pus or fluid of some kind must be present. When touched by the finger the feeling of a sodden tissue is given.

Slight pressure over the diseased area, when the trouble has progressed sufficiently, will elicit a slight purulent discharge in even very mild cases. In those mouths in which the morbid condition has been long continued, there will be found, between the gums and teeth, varying quantities of tartar, which, by constant accretions, acts as a wedge that slowly but surely causes a recession of the gum, the ultimate result being the loosening and dropping out of the teeth, from lack of bracing power. Even in mild, recent attacks, where prompt treatment has caused a halt of the invader, examination of the tooth fangs, by means of a small scaler introduced between the neck of the tooth and the gum, will generally reveal beginning deposits, the presence of which is resented by the gum, as is shown by its tenderness, its tendency to ooze blood, and the constantly recurring gum boils which make life a burden to the sufferer. As a matter of precaution the physician who is consulted in regard to repeated formations of furuncles in the buccal cavity, particularly if he finds small, congested, teat like elongations of the gums projecting unnaturally high up between the teeth, most noticeable commonly in the lower incisors and canines, should be suspicious of the presence of the complaint we have been discussing; for if not checked quickly and thoroughly, it will probably only be a question of time as to when the greater number, or the whole of the patient's ivories will have departed or have become such a torment to him that he regards the man who wears store teeth as one blest of the gods.

As to the general prognosis. In former years it was considered a settled fact that nothing would check, much less cure, the disease, and curious to say the composition of this paper was undertaken by the writer by virtue of the fact that in conversation with some whose attainments are of no mean order it transpired that on this subject they were open to receive information, and that they had absorbed and retained the old idea very largely. It then occurred to the writer that in those localities where the doctor must be doctor, dentist, and general utility man, some suggestions on the subject might be of use, particularly when those more favorably situated were willing to accept them. Under decided and persistent, patient treatment, unless instituted when utter wreckage has taken place, a cure may be effected, but it is well to warn the patient as to what the outcome of neglect may be. Once cured is no guarantee that the disease has been forever stamped out; given like conditions of the system or causative elements and the battle will have to be fought again.

As to treatment. Primarily look up, not only the patient's history, but also that of his family. If you find a rheumatic strain, no matter how slight, the systemic course to be adopted is self evident. If some other vitiated state is a factor, or the business followed is one that involves contaminating possibilities, such as painting and some kinds of metal working, build accordingly. Remember always, though, that the pathology of this disease is not a settled matter, and hence, while our experience has taught us that the rheumatic poison seems to be a large element in the exciting of the disease, we do not wish to be understood as laying it down as a dictum that it alone is the foundation cause.

Locally what? Hydrogen peroxide, aromatic sulphuric acid, sodium carbonate, borax, magnesia, quinine.

Clean the gums, the rugæ on the palatal surface, and both sides of the teeth, thoroughly with the peroxide, taking care to reach the recesses in the mucous membrane posterior to the last molar teeth, as it is here that the poison of the disease seems to hide quietly when all other parts have apparently returned to a normal condition. When the pus present has had its quietus, wash the mouth out thoroughly with water. Then, on a morsel of absorbent cotton apply the aromatic sulphuric acid, basing its strength upon the degree of evil present. Some cases one part of acid and three of water will reach; others require a half and half combination; in others, again, an application of the pure aromatic acid is required. Care must be taken that all recesses, corners, and fistulous passages are treated, and that the agent be applied between the gums and the necks of the teeth. Merely treating the exposed surface of the gum will not answer, of course, but do not use the acid upon the bodies of the teeth if it can be avoided. The pledget of cotton does not need to be dripping with acid and may be hardly more than thoroughly damp. A forceps with fine points should be used, if the dental dressing forceps is not at hand, as the application must be made to the gum in the narrow spaces between the teeth. For reaching into a sinus too small to admit a pledget of cotton, one may use applicators made of paper or of Wood's cotton, this being a mixture of wood fibre and cotton. These applicators are of about the diameter of a medium sized needle; in length they vary from about half an inch to two or three inches. Their cost is very trifling and they can be used for applications made in any location where space is limited and but a small amount of medicament required. They are put up in boxes, of assorted sizes, by most of the dental supply houses of the country.

Following the acid application, the sodium carbonate and borax must be freely applied, being well rubbed in, either by a piece of absorbent cotton or by the finger of the operator, the latter method packing it more firmly into the dental interspaces, the neutralization of the acid being the end sought. The mouth is again cleaned by water; then sulphate of quinine is dusted along the seat of disease and lightly packed between the teeth; dipping dry absorbent cotton in the quinine and lightly, but firmly, patting with this the diseased places is the simplest method.

One thorough treatment of the character detailed above will often stamp out the trouble, though it may be requisite to repeat the dose, the status of affairs being the guide to the practitioner's judgment as to the number of subsequent applications and the percentage of acid to be used.

The quinine should be used daily by the patient till its tonic effect is shown by the normal state of the gums being maintained. The patient should be directed to use a mouth wash two or three times daily of some cleansing antiseptic preparation. In addition, he should at bedtime, or other convenient period, rinse the mouth with milk of magnesia, or a solution of magnesia, the portion of the drug precipitated or adhering to the teeth, etc., not being removed by subsequent washing, magnesia being one of the best preventives to the formation of tartar. Mouth washes containing tincture of myrrh are not advisable, for the reason that the myrrh is precipitated by contact with the watery secretions of the mouth, and at times finds lodgment between the gums and the necks of the teeth, thus acting as a foreign, irritating body.

As an aid in the relief of the gum congestion, a 1-1000 solution of adrenalin acts nicely, particularly in the declining stage of the inflammation.

In those cases in which the teeth are sensitive on their lateral aspects to temperature changes, as spoken of earlier in this article, relief may be obtained by adding a few drops of phosphoric acid to oxide of zinc, the mixture to be of a pasty consistence, drying the surfaces to be covered by wiping with cotton, and applying a thin layer of the mixture to the painful area, very much as a plasterer covers surfaces with cement. If these agents are not at hand, a good coat of sandarac varnish might possibly serve as a temporary expedient. I simply suggest this, never having known it to be thus used, but as any port serves in a storm, so any harmless thing might be tried that would act as a temporary shield till something better could be had.

In closing, the author wishes to disavow any claim to originality in the treatment herein mentioned, as it is one that has been used by many, and generally with the result desired; his idea being only to suggest it to those who, never having come in contact with Riggs's disease, may yet fall foul of it, and from want of experience be at a loss as to how best to cope with it.

160 MANHEIM STREET.

A CONSIDERATION OF SOME POINTS IN OBSTETRICS.

By HELEN HUGHES, M. D.,

MANKATO, MINN.

Parturition being a physiological act, the question may arise, Does it enter the field of medicine or surgery at all? We know that it differs from other physiological acts inasmuch as it is, broadly speaking always accompanied by severe pain. This pain is not the result of deterioration of the race, nor is it a recent development.

Labor among the savage tribes of the present day is not without pain, and the remotest written history gives us no reason to suppose that it occurred at any time without a certain amount of travail. We read in Genesis, which covers about 2,500 years of the world's earliest written history, that against the mother of the human family was pronounced the sentence: "In pain shalt thou bring forth children," showing that the pain of childbirth was an accepted fact even in these early days. And we have no evidence that in the normal physiological labor medical science, notwithstanding its brilliant achievements along other lines, has ever been able to abolish, or even in any great degree to modify, that pain.

In spite of the errors of the so-called civilized life, a very large percentage of births come within the limit of the normal, and require no action on the part of the medical assistant, and these are often the very cases that will tax our common sense, for it is not always easy to steer safely between "meddlesome midwifery" and careless negligence.

Every case of childbirth, without exception, is one of doubt and uncertainty. Not even the most skilled can prognosticate with absolute surety the outcome of any, even the simplest, case of labor. The usual reason of a doctor's presence by the bedside is that he may watch for and deal with any complication that may arise.

A faulty presentation, a prolapsed cord, or the formation of a contraction ring, may quickly change the physiological act into a grave and serious operation, and the doctor is no longer the intelligent observer, but the scientific operator on whose skill, one or perhaps two, human lives depend.

Much excitement and many blunders could be avoided, if we always knew the actual conditions we had to contend with, and had no fears of the possible conditions that a stimulated imagination presents to us.

If obstetrics is a science at all it must be capable of teaching us to reduce many of the possibilities of a given case to certainties, or, at least, to a degree of probability, that for working purposes we can call certainty. If it cannot do this it is not yet a science.

It is not the scope of this paper to take up the various presentations and complications, with the manner of conducting such—this can be found in any textbook on the subject—but rather to consider the various indications.

Fifty years ago and less, Nature was allowed to deal with all cases of parturition up to the point of urgent need, and then the methods employed for relief were crude, and as the patient was in an exhausted condition the termination was usually fatal.

At the present day many of the possibilities of parturition can be reduced to certainties even before labor begins; such as the conditions of the patient's heart, lungs, and kidneys, the size and shape of the pelvis, the presence of hydramnios, the condition of the abdominal muscles, new growth and vicious implantation of the placenta, the condition of the cervix and vagina, and the position and heart sounds of the fœtus. The observation of these points gives us assurance, or directs our attention to any abnormity we may discover.

When labor begins, science teaches us to conduct it in an aseptic manner. It is worthy of remark that it was through an obstetrician that the first gleam of the truth of asepsis reached the world; but it seems that every one who proclaims a great truth ahead of his time must lay down his life for his convictions and some one else reap the glory. Sir Joseph Lister was knighted, and subsequently raised to the peerage, for elaborating, only slightly, the theory for which Semelweiss was persecuted into the grave.

The law of asepsis, and its helpmate antisepsis, is so well known and so generally practised at the present day as not to require comment.

We should not close our eyes to the fact that many physicians pass through a stage of excitement that would do credit to the days when favoring gods and goddesses were implored with charms and spells to assist at the act of parturition. Human nature is always afraid of the unknown, and there is little doubt that the excitement is in direct proportion to the dread of the possibilities of the case. The absolutely ignorant are not afraid, but the doctor who sees in a glance all the possibilities, from a simple protracted labor to a Cæsarean section will likely spend a bad half hour or several of them.

A good painstaking examination of the patient before labor sets in would clear up many matters that confuse the judgment after actual labor has commenced, and it should be the duty of all physicians to encourage and persuade such patients to come to their office, or to call them to their houses for such examination a month or so previous to the expected labor. This, at present, is not very often feasible, but as it is a rational proceeding it could be made customary among rational people. Doctors are largely accountable for all custom, good or bad, with reference to health among their clients.

Measurement of the pelvis is not absolute, because two other factors, which cannot be ascertained until later, enter into the consideration, namely, the presentation and the size of the head; but it is a good working basis and something that should never be omitted in the practice of obstetrics. A knowledge of the size of the pelvis, the position and heart sounds of the fœtus, the presentation and the elasticity of the soft parts, gives us information valuable to ourselves and also to the patient, as we can give a fair idea of how long labor will endure; there is nothing more discouraging to a patient than to assure her labor will be over in a short time when it must actually last many hours.

A pendulous abdomen is a condition that should not be overlooked; it often accounts for the nonengagement of the head. Much can be done in these cases by position and support of the abdominal walls, either with the hands or with a bandage, until the head is fully engaged. I have seen at least one case of this kind turned into a high forceps operation by an ignorant accoucheur, resulting in the death of the child and great damage to the maternal structures.

The condition of hydramnios often calls for the early rupture of the membrane, as the overstretched uterus may become inert.

Many cases of faulty presentation can be relieved by position, and much labor saved the patient.

After the physician has the case thoroughly in hand one of the most frequent duties, and not always the most agreeable one, is to wait, but it is a duty that cannot be shirked. I saw last winter in "Schauta's Clinic," in Vienna, a woman safely delivered after seventy hours' labor.

A great distinction is to be made as to the stage in labor at which the retardation occurs. If early, when the head is only loosely engaged at the brim, the cervical canal still palpable, and mother and child in good condition, there is absolutely no indication to complete labor artificially; while, after the head is sunk deep in the birth canal and has become fixed so that a certain amount of pressure is constant and labor is not progressing, the indication for the employment of forceps is clear, both in the interest of the child, who is in great need from pressure on the brain, and of the mother, who later may suffer from sloughing of the parts from continued pressure. Many cases of vesicovaginal fistula have resulted from neglect at this period.

A word might be said here about the use of forceps. When strong men or women take such an instrument in their hands, they should remember that they are very clumsy things to introduce into a passage lined with the softest and most delicate membrane and distended to its utmost capacity, and that the rupture of the membrane and underlying tissues, though always fraught with danger, is never to be so much deplored as in the parturient woman whose vital resistance is at its lowest.

But, on the other hand, the forceps furnishes us with a mechanical means of assisting an overtried uterus, and so of completing a labor safely that otherwise might have a fatal termination, and may be considered the greatest assistance that we possess in the practice of obstetrics.

The indications for forceps are not many, but are usually clear. First on the list stands the "contraction ring." When this ring increases so as almost to reach the umbilicus, the patient is in absolute need; the pain is intense and the rupture of the uterus imminent; failing vitality in mother or child, or both, after the head is engaged; when the head is deeply engaged and labor is not progressing; and in cases of placenta prævia with a head presentation. A high forceps operation is rarely indicated; there are cases in multiparæ where there is failure of engagement from uterine inertia, in which some might make the choice in favor of forceps against version, but if the nonengagement is the result of some resistance at the brim, it is usually a forlorn hope to try to overcome bony obstruction by the use of forceps.

The complaints of the patient and the comparisons of the relative between your skill and that of some other doctor are not indications for the use of forceps.

Drugs in labor should be used according to their indication, as in any other case, and never given as a routine practice. An anæsthetic, we may say, is necessary in the application of forceps, and is also very useful in normal labor when the head comes down on the perinæum, both to procure complete relaxation of that structure and to save the mother pain. Of the drugs in use for the promotion of uterine contractions, their name is legion, which is a bad sign of the utility of any. Ergot, especially, when given hypodermically, still stands at the head of the list; theoretically speaking, it should be a dangerous drug in parturition, as it produces contraction of the blood vessels, which is followed by relaxation, at which time we might expect great flowing; but practically we cannot say that any bad results follow its use. Its use is contraindicated until there is full dilatation of the os uteri. Quinine a few years ago had many supporters and is still used, and sugar is found to be, in half ounce doses, very useful in producing contraction.

As to the relative safety of the perinæum, with or without forceps, we may postulate that a head that can be delivered safely with forceps, can be delivered safely without forceps; and that a head that can just be safely delivered without a single centimetre to spare, will rupture the perinæum if room has to be made for forceps. The ordinary forceps has a blade one eighth of an inch thick and three eighths of an inch broad; four such blades should be considered in a small space. Another grave objection to their use at this stage, is that they are in the way of the physician, who may be called on to make an epiphysiotomy if rupture of the perinæum becomes imminent. For in these days few would prefer the necessary enlargement to be made into the important structure of the perinæum, when it can be made by choice into the lateral wall of the vulval outlet, with the advantage of an incised wound to coaptate away from all important structures and above the lochial discharge rather than below it.

After the child is born, the placenta gives a good deal of unnecessary trouble, because we have no certainty about what it is going to do; on the expulsion of the fœtus the uterus closes down hard over the placenta. The use of "Credé's" method only stimulates this contraction, as does also that vagabond method that everybody scorns and so many practise—the making of traction on the cord; during this period very little blood is lost, but as soon as the uterus relaxes, flowing may be quite free, ordinarily another wave of contraction sweeps from the fundus downward, and the placenta is expelled. We should keep clearly in our minds that we cannot draw the placenta out of the contracted uterus by the cord, but we can tear off the cord—a very undesirable accident. Nor can we express the placenta by any method from the contracted uterus; neither is there any very urgent need. If the patient is flowing freely it is more likely from a torn cervical or vaginal vessel than from the contracted uterus, even when the placenta is still retained. The placenta is usually expelled together with all clots of blood at the second or third uterine contraction.

If the uterus, after twenty or thirty minutes, is still unable to empty itself, the hand can be introduced with all aseptic precaution and the placenta detached. I was once called to assist in a case of this kind, and on introducing the hand into the uterus encountered bands of adhesion between the uterus and placenta so strong that it was impossible to break them with the fingers. This was a case where traction on the cord at the right moment would have produced inversion.

Post partum hæmorrhage is often very alarming, but is seldom of such a nature as to be fatal. The all important thing is to locate the point of hæmorrhage.

It is poor practice to drench the patient with drugs while a torn circular artery is spouting blood. Sometimes an exhausted uterus fails to contract, and so allows free flow from the placental site; or again in an atheromatous patient the vessels may be held open from a deposit of lime salts in their coats. In the first case ligation will meet the indications; or in a case where it is difficult to secure the vessel and the patient is exhausted, compression can be made by tampon. In failure of contractions ergot again comes in at the head of the list of drugs. Many new preparations are on the market, and adrenalin chloride is recommended, but is still under consideration. The most reliable methods are kneading, the hot uterine douche, the application of acetic acid, and tamponing.

In case of atheromatous vessels in the placental site, Kock recommended, many years ago, and Schauta also agrees with him, the inversion of the uterus clear outside the vagina, and then the application of a strip of bandage firmly around the whole mass in such a way that the placental site is below it. After six or seven hours, if there is no bleeding on removal of the bandage, the uterus can be restored. When all other means fail the removal of the uterus is indicated. In a case of severe hæmorrhage while any of these methods is in progress, compression should be made on the abdominal artery, to control as much as possible the loss of blood.

A habit that has survived the wreck of many other barbarous institutions is that of compelling the patient to lie on her back for a week or more after delivery. This is not only a needless cruelty, but a fruitful source of retrodisplacement.

At present, the more humane custom is gaining ground, of allowing the woman to take the most comfortable position, and very good results are obtained when the patient, after she is strong enough, practises the knee-chest position daily, in order that the uterine vessels may drain freely, and to prevent the now heavy uterus sagging into the hollow of the sacrum.

REPORT
ON THE CURRICULA OF AMERICAN MEDICAL COLLEGES.*

By GEORGE W. WEBSTER, M. D.,

CHICAGO,

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(*Concluded from page 150.*)

Further study of the statistics collected, but not included in this report for want of space and time, would readily disclose much useful information in regard to the relative time devoted to clinical teaching. This varies almost as widely as does the relative time devoted to each subject.

General Medicine.—Highest, Atlanta College of Physicians and Surgeons, 1,900 hours; lowest, Physio-Medical College of Texas, 78 hours. Average, 490 hours.

General Surgery.—Highest, Atlanta College of Physicians and Surgeons, 2,221 hours; lowest, Physio-Medical College of Texas, 78 hours. Average, 536 hours.

Orthopædic Surgery.—Highest, University of Nebraska, 780 hours; lowest, Long Island College Hospital, 13 hours. Average, 61 hours.

Obstetrics.—Highest, University of West Tennessee, 460 hours; lowest, Physio-Medical College of Texas, 52 hours. Average, 169 hours.

Pathology.—Highest, Chattanooga Medical College, 646 hours; lowest, Willamette University Medical Department, 48 hours. Average, 251 hours.

Anatomy.—Highest, University and Bellevue Hospital Medical College, 1,248 hours; lowest, Physio-Medical College of Texas, 126 hours. Average, 480 hours.

Histology and Embryology.—Highest, Ensworth Medical College, 540 hours; lowest, Physio-Medical College of Texas, 26 hours. Average, 211 hours.

Physiology.—Highest, Atlanta College of Physicians and Surgeons, 750 hours; lowest, University of Virginia, 56 hours. Average, 341 hours.

Chemistry.—Highest, University of Nebraska, 756 hours; lowest, Physio-Medical College of Texas, 78 hours. Average, 345 hours.

Bacteriology.—Highest, Chattanooga Medical College, 606 hours; lowest, Eclectic Medical College, New York, 20 hours. Average, 138 hours.

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* Submitted at the annual meeting of the National Confederation of State Medical Examining and Licensing Boards, at Atlantic City, N. J., June, 1904

Pædiatrics.—Highest, Illinois Medical College, 392 hours; lowest, University of Virginia, 18 hours. Average, 98 hours.

Physical Diagnosis.—Highest, Atlanta College of Physicians and Surgeons, 475 hours; lowest, Meharry Medical College, 20 hours, and Oakland College of Medicine and Surgery, 20 hours. Average, 97 hours.

Gynæcology.—Highest, Medical College of Ohio, 570 hours; lowest, University of Nebraska, 32 hours. Average, 181 hours.

Ætiology and Hygiene.—Highest, College Physicians and Surgeons, Chicago, 330 hours; lowest, Columbian University, 8 hours. Average, 46 hours.

Neurology.—Highest, University of Michigan, 327 hours; lowest, University of Tennessee, 10 hours. Average, 83 hours.

Mental Diseases.—Highest, Western Reserve University, 268 hours; lowest, Bowdoin College, 6 hours. Average, 46 hours.

Materia Medica and Therapeutics.—Highest, Hering Medical College, Chicago, 832 hours; lowest, Physio-Medical College of Texas, 52 hours. Average, 216 hours.

Pharmacology.—Highest, American Medical Missionary College, 330 hours; lowest, University College of Medicine, Virginia, 12 hours. Average, 60 hours.

Dermatology and Syphilis.—Highest, Barnes Medical College, St. Louis, 448 hours; lowest, University of Missouri, 10 hours. Average, 80 hours.

Laryngology and Rhinology.—Highest, Atlanta College of Physicians and Surgeons, 450 hours; lowest, Long Island College Hospital, 15 hours. Average, 85 hours.

Ophthalmology and Otology.—Highest, College of Homœopathic Medicine, University of Iowa, 432 hours; lowest, Meharry Medical College, 16 hours. Average, 124 hours.

Medical Jurisprudence.—Highest, National Medical University and Hospital, Illinois, 775 hours; lowest, College of Medicine, Syracuse University, 4 hours. Average, 36 hours.

Genitourinary.—Highest, Barnes Medical College, 448 hours; lowest, Meharry Medical College, 4 hours. Average, 74 hours.

Grand Totals.—Highest, Atlanta College of Physicians and Surgeons, 10,124 hours; lowest, Physio-Medical College of Texas, 958 hours. Average, 4,257 hours.

Average Number of Months.—Seven plus.

The idealism of the German university maintains that the object and aim of an education is to develop in a symmetrical manner the mental faculties, to enable one to live to the utmost, to enjoy being. It is a doctrine of being, rather than of doing, of idealism rather than of realism, of the theoretical rather than of the practical.

On the other hand, there is a very large class who insist on the social, and more especially the economic, utility of all human actions. They believe in the practical, the utilitarian, that which produces immediate results. They want men who do things.

The former argue that a man should devote 7-4 4-4-2 = 21 years of the best of his life to acquiring an education. Such a man, if he was always well, enjoyed good health in childhood, missed no time at school, and took no time for travel, would be ready to begin to earn his first fee at twenty-seven or twenty-eight years of age.

A system of education which demands that a man shall spend twenty-eight or thirty years of his life in preparation for active participation in its duties, that he earn his first fee at even twenty-five or twenty-eight years of age, seems in this eminently practical age, and as measured by organized society, to be impractical and impossible.

But there is no standard of ideals or idealism. Culture is a changing ideal and cannot be used as a permanent test of educational processes. I wish to show, first of all, that idealism as to what constitutes a satisfactory medical education has undergone substantial changes in the last hundred years or so.

Even in the so called reputable medical colleges, there is nothing which approaches agreement as to the entrance requirements to be enforced, and in many of the courses in medicine these requirements are something fearfully and wonderfully made.

The medical diploma of the medical college was shown in the sixties to have no value as an evidence of medical qualifications or of medical education on the part of its possessor.

This was recognized by the surgeon-general, when he found that, notwithstanding the fact that only graduates of regular colleges were admitted to examination, over 80 per cent. were rejected for incompetency. It was this which first led to the suggestion of having boards of medical examiners, but the jealousies and financial interests of the colleges were powerful enough to prevent this for a long time.

Even as late as 1870, Harvard Medical School required only twelve months of study for the medical degree, and many of the leading medical colleges required, at a much later period, only ten months.

Unfortunately, the question in the past has been, not what constitutes the very best preparation for the very best kind of life work, but, where can I get the largest number of degrees with the least work, the least expenditure of time, and a minimum of expense.

To-day it is not altogether a question of that culture and knowledge and idealism which will be a comfort and solace to men of wealth and leisure; we have living issues and we want men and modern methods.

Between the extremes of idealism, on the one hand, and pure commercialism on the other, is there not some common reasonable middle ground which is wise and conservative?

May we not agree upon certain principles, certain regions, even though some of the boundary lines remain at least temporarily in dispute? To-day, as never before, we are confronted by commercialism, the feverish pursuit of what "pays," as the one end and aim in life.

Uninfluenced by pecuniary reasons, unfettered by the influence or the arguments of the colleges themselves, especially the argument that they will suffer loss, we should decide what ought to be done; we should determine what constitutes a satisfactory curriculum, and this should be adopted and then enforced.

We should determine, as far as we may, what constitutes the ideal medical course, and then what kind of a foundation should there be under such a course—in other words, the character of the preliminary training.

Educators in general have given insufficient attention to the special requirements demanded by the student desiring to enter medicine as a career, and have not done their duty in aiding in the trend of special mental development necessary to the successful practice of medicine.

In this country there is an unmistakable rift between studies for culture and studies for vocation. The college course is pursued for culture rather than as a preparation for the professions.

In 1890 it was estimated by the special committee of the Board of Overseers of Harvard University that only 8 per cent. of the medical students of the whole country had taken a degree in arts or science.

I believe that the liberal degree has, in a sense at least, determined our educational standard; that it is the mark of the well educated man, irrespective of his calling, and that for those who are considering merely technical training rather than culture, there should be at least one year added to the medical course, a connecting link, and at present a weak one, between the high school and the medical school, and consisting of physics, general biology, and German or French, or both. Possibly the plan suggested by President Butler, of Columbia, would be even better than this. He says: "There should be a college course of two years in length, carefully constructed as a thing by itself, and not merely the first part of a three year or four year course, which will enable the intending professional students to spend this time as advantageously as possible in purely liberal studies."

An adequate, properly constructed medical curriculum should be so formulated as to give students a comprehensive knowledge of medicine in all its departments, and not an intricate special training in any one, as it is not the function of the medical school to prepare men for original research or to develop a series of medical specialists.

It should be so constructed as to give the student as many hours of work each day in the college as can be well done, say, from five to seven, leaving sufficient time for study, and it should then be extended over as many months as the multiplicity of subjects and the increase in the sum total of medical knowledge has made necessary, limiting each subject and measuring its time allotment in accordance with a conservative estimate of its relative value as an element of substantial medical education, as shown by the average time allotted to it by its teachers in the medical colleges of the United States.

It should be so constructed as to give the proper relative time to clinical and laboratory instruction, as well as to recitations and lecture work. Each student should do at least five hours a day of work in the college, and this should extend over thirty weeks of actual work, exclusive of holidays, thus making the term eight months, and the number of hours in the term or year, nine hundred.

To accomplish the same amount of work in six months, the student must do seven hours of college work a day, and this does not allow sufficient time for study, exercise, recreation, and rest.

I know of no way of determining the time allotment and estimating the relative value of each subject in the curriculum, except by an appeal to the consensus of skilled opinion of the teachers in each subject, as shown by the average time which is now devoted to it. For example, I have ascertained the exact number of hours devoted to the subject of anatomy in each of the 125 medical schools, modified as it must be in each college in accordance with the wisdom of the officers of the faculty. By adding the total number of hours and then dividing by the number of schools an average is obtained. This has been done with each subject in the curriculum, and the result is as follows:

	Average hours.		Average hours.
General medicine	490	Ætiology and hygiene	46
General surgery	536	Neurology	83
Orthopædic surgery	61	Mental diseases	46
Obstetrics	169	Materia medica and therapeutics	216
Pathology	251	Pharmacology	60
Anatomy	480	Dermatology and syphilis	80
Histology and embryology	211	Laryngology and rhinology	85
Physiology	341	Ophthalmology and otology	124
Chemistry	345	Medical jurisprudence	36
Bacteriology	138	Genitourinary	74
Pædiatrics	98		
Physical diagnosis	97		
Gynæcology	181		

The following table shows at a glance the averages which were shown last year, the standard adopted at that time, together with the average in each of the studies of the enlarged curriculum in 124 medical colleges.

Study.	Average of 43 Schools.	Standard Adopted.	Average in 124 Schools.
General medicine	544	500	490
General surgery	596	540	536
Orthopædic surgery			61
Obstetrics	177	150	169
Pathology	295	260	251
Anatomy	549	500	480
Histology and embryology	219	200	211
Physiology	276	250	341
Chemistry	375	340	345
Bacteriology	131	115	138
Pædiatrics	72	60	98
Physical diagnosis	61	55	97
Gynæcology	145	130	181
Ætiology and hygiene	33	30	46
Neurology	82	75	83
Mental diseases	27	25	47
Materia medica and therapeutics	118	110	216
Pharmacology			60
Dermatology and syphilis	64	50	80
Laryngology and rhinology	67	55	85
Ophthalmology and otology	106	95	124
Medical jurisprudence			36
Genitourinary			74

Let us now construct an ideal standard, to which we can at least soon conform. It should consist of at least the following:

1. The standard curriculum,[1] which is to be adopted as a minimum for the degree of M. D., shall consist of the following:

a. The course shall consist of four terms in four separate calendar years.
b. Each term shall consist of thirty weeks of work, exclusive of holidays and of at least five hours of college work each day, and thirty hours in each week, or 900 hours of actual work.
c. The entire course of four years shall consist of not less than 3,600 hours of actual work.
d. This should be a standard of *required work.* Any *elective* work should be *in addition* to the above.
e. The average time devoted to each subject in the curriculum should be approximately the average time now devoted to it as shown in this report.
f. Clinical work should constitute at least one fourth of the total number of hours in the four-year course.

This medical course should have the following foundation[2]:

a. Seven years in the primary school.
b. Four years in the high school, preference being given to the scientific, rather than the literary, course.
c. A special course of two years in biology, physics, and modern languages, or a college course in which the last two years shall have been modified to meet the demands of the medical student.

ADVANTAGES OF A STANDARD UNIFORM CURRICULUM.

The adoption of a standard uniform curriculum will be in the interests of an improved, as well as a higher, standard of medical education. It will add symmetry to the course. It will give to each subject that relative importance which rightfully belongs to it, and no more. It will enable students to receive due credit for work done in any recognized school which adopts and conforms to this standard, thus enabling them to take the first two years in institutions remote from large cities, going to the latter for the last two years of clinical instruction. It is the most important single step toward future inter-State reciprocity on a rational basis. It will result in closing up some inferior schools of low grade. It will serve as a basis for reform in State board examinations. In most State boards all studies have equal rank, the applicant being required to answer to the same number of questions in each subject, a manifest injustice to the applicant. For example, some boards ask as many questions on physical diagnosis, gynæcology, pædiatrics, and obstetrics, as they do in general medicine or general surgery, while the relative importance of these subjects and the relative time devoted to them is much smaller than to the major subjects.

A uniform standard will be set up for the whole country, instead of the heterogenous regulations of State authorities. Singleness of policy will be substituted for the present unfortunate diversity of practice.

It will unify and harmonize effort and will make possible the interchange of licensure, reciprocity.

It will enable students to receive credit for work done and to make their scientific and laboratory instruction in one place or State, and complete their clinical course in the large cities, where there are abundant clinical opportunities.

The medical degree will have a reasonably uniform standard of value, and will mean something to its holder.

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[1] This standard was unanimously adopted.

[2] This standard of preliminary entrance requirements was not adopted, but the committee was instructed to make a special report on this point next year.

We realize that quantitative standards are educational evils, but sometimes it is "any port in the storm."

We do not assume for a moment that what we suggest is perfection, that we have attained the ideal; we know that after the summit is reached, all roads lead downward. We only offer this as a working plan.

In this evolution of an ideal, or even a satisfactory, medical curriculum, I freely grant that there is no such thought in my mind as arriving at the ideal; there is no such thing as a stopping place, a resting place; but may there not be a halting place, where we may go forward as a unit, as a solid phalanx and not as stragglers, each one fighting by himself and for himself?

THE REGULATION OF THE X RAY TUBE.

By J. SHERMAN WIGHT, B. S., M. D.,

BROOKLYN, N. Y.

On the theory of J. J. Thomson, ions are electrified particles having charges of positive or negative electricity, and the process by which a gas is made into a conductor is the ionization of the gas. Ionization of the electric field close to the cathode is produced by the positive ions, or they strike against the surface of the cathode, communicating so much energy to the corpuscles contained in the layer of metal close to its surface that they are able to escape, just as they are able to escape from a metal when it is raised to incandescence. These are driven from it by the electric field, and soon acquire such velocities that they ionize the gas through which they pass, producing a supply of positive ions, which are attracted by the electric field up to the cathode, there to produce a fresh supply of negative ions. Wehnelt[1] describes an experiment in which he placed a solid obstacle in the Crookes's dark space, and it cast a shadow on the cathode, and from the region of the shadow there was no emission of cathode rays. This strongly supports the view that the emission of negative corpuscles is due to the impact of the positive ions.

When the cathode rays strike a surface there is a diffuse reflection of cathode rays, greatest in amount in the direction in which the angle of emergence is equal to the angle of incidence. The cathode rays are deflected from a straight path in tubes, the amount depending on the rate at which the intensity of the electric field diminishes as we recede from the cathode; thus, in soft tubes, the strength of the field diminishes rapidly, and if the cathode is a hollow spherical bowl, the rays will travel along the radii and come to a focus at its centre; and if this happens to be the situation of the platinum disc, it will be heated white hot and not be effective in producing Röntgen rays. As the potential rises and pressure becomes lower, deflection increases, and we should get with a concave cathode, not a solid pencil of rays, but their condensation into a hollow conical shell.[2]

By taking photographs of a card pierced with pinholes, and drawing the lines joining the photograph of a hole with the hole itself, and finding their points of intersection, it has been shown that the spot struck by the cathode rays is the place where Röntgen rays originate. When the direct or reflected rays strike the walls of the tube, the phosphorescent part of the glass is the origin of the Röntgen rays. These cathode rays impinging normally on the plate or glass are more effective in producing Röntgen rays. The Röntgen rays produced when the cathode rays strike against a plane area come off approximately uniformly in all directions. This is shown by placing a hemispherical photographic film so that its centre is at a point on the metal plate struck by cathode rays travelling in any direction; the Röntgen rays starting from the plate affect the film, and when the photograph is developed its intensity is found to be approximately uniform until we approach quite close to the line where the plane of the plate intersects the film.[3]

A great many Röntgen rays are absorbed in their passage through the glass wall of the tube. A trace of impurity in the gas produces surprisingly large effects in the cathode fall of potential. An auxiliary tube giving emanations ionizes the gas in the main tube and increases its electrical conductivity.

The regulation of the x ray tube requires:

1. A tube of glass as thin as is consistent with strength.
2. An auxiliary tube, attached to the main tube and sending emanations into it (the addition of some volatile salt may be of some advantage). This auxiliary tube should have a spark gap adjustment.
3. An adjustable cathode.
4. Change of voltage outside the tube.

30 SCHERMERHORN STREET.

Grace Hospital Training School, Toronto.—At the Grace Hospital Training School the following nurses have passed a successful final examination, and on the completion of their time are entitled to their diplomas: Annie Elizabeth Bonnar, Viola Chisholm, Caroline Schultz, M. L. Victoria Woods, Blanche Gertrude Hill, Mary Forbes, Margaret Cullen, Florence Beaton, Violet Emma Burnett, Anna Kingsmill Morris.

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[1] *Wied. Ann.*, LXVII, p. 421, 1899.

[2] Goldstein, *Wied. Ann.*, XV, p. 250, 1882.

[3] Campbell Swinton, *Proc. Roy. Soc.*, LXIII, p. 432, 1898.

REFLECTIONS ON THE FINANCIAL STATUS OF THE MEDICAL CAREER.*

By NATHANIEL G. PRICE, M. D.,

NEWARK, N. J.

In these days of rush and hubbub, of striving, struggling, and competing, the spirit of commercialism is the moving factor, the powerful vis a tergo; a pyramid of glittering gold is the goal of all this mad hurly burly. To be consistent with these tendencies, let us view the medical career from the financial standpoint. Does it offer any pecuniary benefits more luring than the other walks of life, for example, the practice of law or the business career?

Before answering this question it may not be amiss to consider the cost of a thorough initiatory medical training. These preparations extend from four to seven years; four years of study in one of our medical colleges, two years of apprenticeship in a hospital, and for those well favored one year of study abroad. Bearing in mind the cost of textbooks, tuition fees, special courses, board, clothing, and the numerous petty incidentals of a student's life, we may count $500 a low estimate of his yearly expenses, making, therefore, a total outlay of $3.500 for a thorough equipment of the young disciple of Æsculapius. In these calculations we have not included the income which the student could reasonably have earned in another career during the period corresponding to his novitiate, which would at least be equal to the sum above mentioned. Nor have we included the expenses of an academic course, frequently undertaken solely with the view of laying the foundation for the future medical career. Altogether, a tidy little fortune is invested in the student before he is prepared to enter the medical arena to compete with his bearded colleagues. Furthermore, if our spirit of inquiry leads us to delve into the sources of this capital, we shall frequently be astounded at the life of rigid frugality and petty privations entailed by it on the part of self sacrificing parents in behalf of their offspring. To be exact, therefore, we must often add to this outlay of cool cash, a heap of sighs, a horde of mortifications, a myriad discomforts.

Granting that the student has sufficient intelligence, industriousness, and applicability to undergo all his ordeals successfully; granting that he has already proclaimed himself at the service of ailing humanity, through the agency of a marble or wooden sign according to his means, or, rather, the means of his friends, what are his prospects of becoming a modern Crœsus? Has he in his possession the open sesame to dazzling wealth? Has he acquired the magnetic charm to dispel the frowns and attract the smiles of fickle Dame Fortune? Has humanity been waiting breathless for the coming of this medical Messiah as he is fondly led to expect through the kind but meaningless flatteries of his cherished friends? Far from it. He is doomed to a disappointment and disillusion proportionate to the vividness of his expectations. He is destined to a long and cheerless respite, a period of inactivity which robs him of his rosy view of mankind and imbues him with a spirit of pessimism. With Hamlet, the melancholy Dane, he may dolefully wail:

> "Oh, God! God!
> How weary, stale, flat, and unprofitable
> Seem to me all the uses of this world!
> Fie on it! O fie! 'Tis an unweeded garden
> That grows to seed; things rank and gross in nature
> Possess it merely."

It will take from three to four years before he will be able to support himself independently, and he is likely to be well on toward middle age before he will earn a fair competence. By this time his spirit of enjoyment will become so soured, his formerly light-hearted disposition so melancholy, that he will find but Lenten delight in this competence.

According to available statistics, it is estimated that the average yearly income of medical men in this country is $1,500. When we bear in mind the fact that it is contrary to the dictates of human nature honestly to admit failure, we may assume that even this low estimate is to a certain degree exaggerated.

Some will no doubt demur at the trials and tribulations above depicted, and will perhaps cite cases of rapid, even immediate, successes; yet such instances must be classified as exceptions which merely emphasize the rule. A genius is not expected to obey any rules, and one with unusual opportunities may be permitted to infringe upon some of them; for one is the protégé of Nature, the other the godson of Fortune.

Let us now compare the medical career with some of the other professions and pursuits, as, for example, the practice of law and the business career, and note whether these walks of life do not offer more powerful attractions, financially considered.

The profession of law offers some decided advantages over that of medicine.

First, the study of law does not interfere with the retention of a paying position on the part of the student, for his attendance is usually limited to two hours in the afternoon. A school teacher can, for example, instruct his pupils and at the same time pursue his legal studies. For the convenience of those whose occupation will not permit afternoon attendance, special evening classes have been established in most of the law schools. Thus, the student can maintain himself independently and at the same time make headway in the study of his chosen profession. With medicine no such compact can be made, for she is a jealous mistress who demands our full-hearted allegiance and brooks no half-hearted pleasantries. It is true that during the summer months the medical student may be able to earn a little money, if he is so fortunate as to obtain a position when the supply of applicants so greatly exceeds the demand; yet to lay the best foundation for his future career, it is more advisable that he either take a summer course of clinical teaching or employ his leisure hours in one of the dispensaries.

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* Read before the Newark Medical League, September 28, 1903.

Secondly, law serves frequently as an introduction or stepping stone to a wider and more lucrative field of operation. To the lawyer the portals of politics are cordially opened, and if he has a silvery tongue, spiced with some mentality, he is sure of talking himself into a position of prominence. This not only insures him a fat salary, but also swells the value of his legal services and inflates the number of his briefs. In addition to politics, it is not inconsistent with the practice of law to have an interest in a host of other pursuits and undertakings which the practice of medicine strongly interdicts. It is true nowadays some practitioners of medicine also interest themselves in politics, and although, rationally considered, this ought to be a wise procedure, tending as it does to broaden the mind of the physician and to improve the hygienic condition of the community at large, nevertheless it is for the present a dangerous experiment; the experimenter's prestige as a physician is likely to suffer by it.

Thirdly, the average income of the lawyer is considerably higher than that of the physician. He commands, as a rule, better fees for his services, and it is not an uncommon occurrence for the lawyer to obtain a fee in one individual case amounting to the average yearly income of the physician.

Fourthly, he is, comparatively speaking, rarely imposed upon, for he has it in his power at the very last moment to refuse to proceed with the case unless his demands are complied with. The client is perforce compelled to yield, for engaging another attorney (who must take a good deal of time to familiarize himself with the minutiæ) means another retaining fee and a likelihood of losing even a just contention. For this reason imposition is very seldom practised upon the lawyers; in fact, the opportunities and temptations for it are greater on the other side of the fence. How different is it with the good hearted but unpractical physician! If he has the temerity to refuse to continue the treatment of a case, another physician will obligingly step in and minister to the bodily wants of the patient at a few moment's notice, just as ably as the first one; besides, he will ask no embarrassing questions as a rule. So the pile of unpaid bills grows to huge proportions. A case in point was recorded recently in one of the daily papers. A physician, thirty years in practice, was celebrating the anniversary of his birthday, and as a jubilee offering he made a brilliant bonfire with the unpaid bills he had accumulated for twenty-five years, amounting to $42,000; he still retained in his possession bills for $10,000 for unpaid services he had rendered during the last five years of his practice. That this imposition on the good nature of physicians is a sad reality every medical man will testify, in language sacred or profane, or both; besides, it requires but a cursory perusal of the books in collecting agencies to make this fact evident.

Fifthly, the young lawyer is engaged for a case with less hesitancy and nice deliberation than is the young physician. People will sooner risk a part of their wealth than their future well being, or perhaps existence. If, therefore, he has a large circle of friends and acquaintances, the young lawyer may reasonably count upon their patronage, whereas the young physician's friends and acquaintances do him more harm than good; at least, in the first few years of his practice.

Finally, the practice of law is conducted in a broader arena; the lawyer's ability is judged by his logic, his power of persuasion, his shrewdness, his knowledge of law, by an audience in a court room usually composed of intelligent people, who can comprehend and follow the force of an argument. The physician's arena is a bed chamber; for an audience, he has one or two relatives and the neighbor next door; for a theme, a disease of which the patient and audience know nothing; in place of arguments he offers mysterious prescriptions, and instead of taking memoranda on the remarks of his "worthy opposing counsel," he takes his fee, if it be forthcoming. In other words, his field being smaller, his progress is necessarily slower, and since the laity cannot judge the physician's knowledge by his methods and prescriptions, they will judge him by external trivialities. A curl of the mustaches, the cut of the beard, a warm and prolonged handshake, a blithesome smile or a well stocked stable, often reveal to the lay mind unmistakable tokens of profound medical wisdom. It is for this reason that many medical gentlemen with thorough knowledge of their profession shamble ploddingly along, while those blessed with one of the above tokens of brilliancy rapidly roll forward on the path leading to financial success.

The practice of law at present, therefore, offers a better remuneration, a broader field of operation, and the other advantages enumerated. But in the course of a few years at the present outpourings from the numerous schools of law, the financial condition of this profession will become even more deplorable than it is in our profession, unless some drastic measures are adopted. A host of young men, wise or otherwise, some in truth as much adapted to the practice of law as a Fiji Islander to the exposition of Milton's *Paradise Lost*, yearly sacrifice remunerative positions in exchange for the learned and imposing title Doctor of Laws. The pitiable spectacle of lawyers congregated in front of the court houses in large cities, actually soliciting cases, serves as a gloomy augury of the conditions to be.

The business career offers some decided advantages over the medical career.

First, a costly preparatory training is not essential, a public school education being, generally speaking, sufficient foundation. On entering this field of usefulness the beginner has, therefore, at least ten years the start of his companion, who takes up an academic course with the view of pursuing the study of medicine afterward. By the time he has become a full fledged M. D., the one who had entered business will, in all likelihood, be fairly well established.

Secondly, larger fortunes are made in business than in the practice of medicine. The acquisition of a million dollars in the life time of a business man is, comparatively speaking, a common occurrence, whereas, with the practitioner of medicine, it is almost an unheard of achievement.

Thirdly, the business man can through the newspapers and magazines draw and retain public attention to his commodities, or to any other feature of his business; constant repetition usually engenders belief and conviction. With the medical man, having but a slim circle of patients, it is a process of tedious waiting. To be careful of his own interests he must remain patiently at home and chew the cud of bitter reflections, until, by a process of evolution, revolution, or convolution, he arises one morning to find himself "the fashion."

Lastly, the business man, if he deems it wise, may, without loss of pride or dignity, change his line of operation to one more profitable, or he may interest himself in a number of undertakings at the same time. The physician is shackled to his profession and he cannot break the fetters without suffering materially in the esteem of his friends. Besides, it is highly questionable whether at his age, with his peculiar training, his unpliability, he can compete successfully with those brought up from boyhood to that particular walk of life he might choose to enter. It is this uncertainty which no doubt urges many a physician patiently to bear those ills he has than fly to others that he knows not of.

Yet, in spite of these advantages of a business career, the prospects of financial success in the mercantile line of one with a small capital are not so rosy as they were some years ago. The vast combinations of wealth, stalking proudly under the name of trusts and corporations, are forming nowadays monopolies in their especial branches, and the attempt on the part of one with limited means to compete with one of these giants, spells " Ruin " with capital letters. Peeping into the future, it requires but little imagination to perceive mists and clouds looming above the horizon also of this area of activity.

A brief survery of some of the economic causes tending to make the financial condition of medical practice unwholesome, may lead us to formulating appropriate remedial measures for its betterment.

The *Journal of the American Medical Association*, of July 27, 1901, states: "Over 160 medical colleges turn out annually a crop of 6,000 graduates, or over 2,000 more than can be provided for;" in other words, overcrowding exists in the profession. This oversupply tends naturally to engender jealousies and active competition; in other words, causes the commercial spirit to assume ascendancy over the code of ethics. We cannot condemn a man who refuses to feed his hunger on unadulterated ethics. He will seek and find some crooked by-way which will lead him to the means of a livelihood. Such a man will usually resort to advertising his existence and marked medical capabilities, in this manner lowering the profession at large, but increasing his individual income. Advertising is, as a rule, a public confession of financial failure; it is inconceivable that a medical man will voluntarily lower himself in the esteem of his colleagues, unless urged by dire necessity.

Another factor is the large number of medical colleges, many of whose faculties are not overparticular as to the qualifications of their students, considering only their own personal greed or ambition. These by their luring advertisements entice young men from their appropriate path of life, and after a few years launch them with their degree of M. D. on suffering humanity. Dr. Philbrick states, in the *Journal of the American Medical Association:* "Medical colleges exist far in excess of any public need. Like the country store, which doles out inferior wares at every cross road, a so called 'medical college' is found in almost every town of generous size, and to obtain a medical degree is within the possibility, intellectual and financial, of any youth, however lacking in mental or moral fitness. In the majority of cases they possess few facilities for demonstration, are located in towns where there are not a sufficient number of dependents to furnish requisite clinical material, and generally have as instructors men of mediocre, or less, ability."

The abuse of medical charity is another evil which does incalculable harm to the practice of medicine. The writer does not contend that the deserving poor should not receive free medical treatment in their hour of suffering, but he does emphatically insist that those who are able to pay for medical services should not be permitted to evade such payments. To cheat the medical profession of its legitimate dues seems to many otherwise upright people a smart procedure, no doubt because the physician's stock in trade consists of intangible materials. Such people deem it a crime to steal an article worth a penny, but to steal dearly bought information, the physician's saleables, is not only permissible, but laudable. If we were to sum up the number of patients enrolled on the books of the various institutions of any large city, treating its patrons gratis, we should be forced to the conclusion that fully one half of the population are paupers—a manifest absurdity. To those who are not well informed on this subject, it would be a shock to see bejewelled ladies, dressed in fineries, drive up in their carriages to the portals of a high toned free dispensary; but such doings are quite stylish in the city of New York. It may be indignantly asked: "Why are such people treated in charitable institutions?" It is because many of the dispensaries are directly connected with medical colleges, and must therefore furnish sufficient clinical material irrespective of any other considerations; others again, formed by cliques of physicians for their mutual glorification, must endeavor, through the small profits on medications, to make the institution self sustaining, hence their motto is: "We want more." In other words, there are more hospitals, dispensaries, and clinics than are actually needed for the accommodation of those in poor circumstances, therefore lax supervision or no supervision at all is instituted as to the financial standing of their patients.

This leads to a twofold evil, besides the abuse of medical charity. First, the poor are robbed of their just rights to thorough examination and judicious treatment, for the physicians in charge of their special classes are compelled, because of the large number of patients and the limited time, to "run off the class;" secondly, the physicians themselves are deprived of the benefits they could derive, if it were possible for them to give close attention to each individual case.

Counter prescribing on the part of so called pharmacists tends also materially to injure the practice of medicine. Some druggists are so ignorant or unscrupulous that they prescribe for any ailment under the sun, without regard to consequences, so long as their exorbitant demands are complied with. Some even go so far as to engage in active genitourinary practice, justly to the detriment of their foolish dupes and the ultimate benefit of the physicians. Others pose as expert surgeons and are daunted by nothing short of a compound fracture.

Furthermore, the great number of illegitimate practitioners, quacks with their infallible nostrums, osteopaths, faith curists, magnetic healers, spiritual healers, Christian scientists, mind curists, and the host of other charlatans preying upon the ignorance and superstition of the people, do a world of harm to legitimate practice.

Besides, the market is filled with panaceas and proprietary remedies, labeled as specifics for all the ills known and unknown to humanity. The medical man is often called in to make a diagnosis of the complaint, and after he leaves the ignorant friends of the patient hurry out to purchase Dr. Nobody's prescription No. 99, the supposed specific for this particular ailment.

Finally, the laws of some of the States are too flexible; they are not sufficiently rigid in their exactment of appropriate academic and medical qualifications. Even in the State of Massachusetts, a State supposedly alive to the interests of its people, a pitiable law exists, which permits one to obtain a license to practice medicine and surgery without having graduated from a medical college. What a lamentable state of affairs! Imagine such a man, without any practical training, confronted with a difficult obstetrical case! What a beautiful bungle he will make of it!

In conclusion, the following remedies suggest themselves for the improvement of the financial aspect of medical practice:

First. The enactment of a national law, specifying a rigid, uniform course of academic and medical training, and also a uniform examination for those seeking a license to practise medicine and surgery. This license should, of course, entitle its holder to the privilege of practising in any State of the Union. Such a law would tend to raise the standard of requirements and, therefore, to limit the number of physicians, and at the same time to elevate the American physician in the estimation of the other countries.

Second. All medical colleges should be State institutions. This will do away with the cheap colleges controlled by mercenary private corporations and insure thoroughness, reliability, and uniformity.

Third. The laws to prevent illegitimate practice should be made so rigid and drastic as effectually to deter the various fake healers and curists from continuing their evil traffic.

Fourth. Hospitals and dispensaries should be under municipal supervision, and their number should be limited to the requirements of the community.

Fifth. All applications for free treatment should be rigidly investigated, so that only those who are entitled to it should receive its benefits.

Sixth. The placing on the market of highly lauded, but usually worthless, not to say dangerous, specifics, panaceas, and cure-alls, should be limited by careful tests, or, if possible, be entirely prohibited through appropriate legislation; for what is nectar to one is poison to the other.

These suggestions contemplate radical and therefore time consuming changes, but if they were strictly carried out, the grandeur, nobility, and holiness of the medical career would again appear in strong relief, like a beautifully tinted rainbow after the subsidence of a thunderstorm. The financial aspect of medical practice would assume a ruddier hue, the code of ethics would gain the mastery over the moribund commercial spirit, and good fellowship and concord would prevail in our much beloved profession.

◆

Therapeutical Notes.

Simple Treatment of Ingrowing Toenail.—L. Martel (*Loire médicale; Journal de médecine de Paris*, for June 19, 1904) considers an ingrowing toenail as causing a trifling wound, chronic on account of a foreign body at the edge of the nail and because of the difficulty of rendering the site aseptic. An important ætiological factor is the convexity of the nail, the flesh supporting the border gradually ulcerating and giving way. Shoes with pointed toes and high heels aggravate the condition and an hypertrophy of the nail ensues, rendering a cure more difficult.

The treatment consists in scraping the nail with a piece of glass in the middle and at each side till the matrix feels sensitive. Absorbent cotton or some similar substance may then be used for protection against the friction of the shoe. Martel reports that patients with shoes half split open on their arrival have departed with soul and sole at ease after this simple treatment, and that he has not in four years performed the usual operation for an ingrowing nail.

Tobacco in Intestinal Atony.—Torresi, of Urbisaglia, according to *Semaine médicale* for May 11, 1904, finds that strong doses of infusion of tobacco have no drawbacks when used as enemata in intestinal atony or occlusion. He uses 15 to 30 grammes, or one half to one ounce, of the leaves to a quart of water, the latter dose successfully in a case of postoperative intestinal paralysis. In 7 cases, Torresi had 5 successful results, the remaining 2 being in patients absolutely moribund.

The Salicylic Ion in Neuralgia.—According to *Semaine médicale*, for June 15, 1904, S. Leduc, professor of medical physics at the medical school of Nantes, treats neuralgia by the salicylic ion, introduced by electrolysis, according to the method recommended by Bergonié and Roques, of Bordeaux, in the treatment of rheumatism. The value of this method was particularly well demonstrated in a case of neuralgia of the left ophthalmic branch of the trigeminus. Morphine alone had afforded relief in this case. The salicylic ion produced freedom from pain for exactly thirty-six hours, whereas morphine had proved efficacious for a very limited time.

Leduc placed a large anode on one of the thighs, and over the left eye a tampon of cotton saturated with a two per cent. solution of sodium salicylate, covered by a compress of eight thicknesses of absorbent cotton, also saturated with the solution, the whole completely surrounding the painful area. A current of 20 milliampères was then established and kept up for half an hour. The skin is unaffected by the current.

Tincture of Iodine in Pulmonary Tuberculosis.—*Presse médicale* for May 21, 1904, recalls the fact that iodine is an excellent general tonic, stimulating the appetite, facilitating digestion, and arresting the vomiting caused by coughing after meals. It also stimulates nutrition and assimilation. The same journal quotes Deéarde, of Lille, who in *Echo médical du Nord* for July 21, 1903, gives his formula as follows:

℞ Tincture of iodine	20 grammes ($^{2}/_{3}$ ounce);
Potassium iodide	2 grammes (30 grains);
Glycerin	40 grammes ($1^{1}/_{3}$ ounce);
Syrup of bitter orange peel	50 grammes ($1^{2}/_{3}$ ounce);
Water, enough to make	1 litre (1 quart).

M. Tablespoonful before luncheon and dinner.

The potassium iodide helps dissolve the iodine.

Muscular Cramps.—*Revue médico-pharmaceutique*, for April 15, 1904, gives the following formula:

℞ Sydenham's laudanum	of each . . . equal parts.
Chloroform	
Oil of hyoscyamus	

M. Liniment. If relief is not soon experienced, sodium bromide should be administered internally.

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THE LATE SURGEON GENERAL HAMMOND.

We rejoice that at last justice has been done to the memory of the late Surgeon General William Alexander Hammond. The *Journal of the Association of Military Surgeons of the United States* has been giving its readers a series of interesting editorial sketches of the men who have held the office of surgeon general of the army. The eleventh article, which appears in the August number, is devoted to Dr. Hammond, and it amply sets forth the greatness of the man and confounds his detractors. It is not alone because Dr. Hammond was the founder of the *New York Medical Journal* that this tribute gives us pleasure, but also because several years of intimacy with him gave us the conviction that he had been most unjustly treated. When our own obituary notice of Dr. Hammond was prepared, we naturally felt that his close connection with our journal made it incumbent on us to keep well within the bounds of moderate praise, lest the known fact of that connection might make it appear to some of our readers that we were unduly influenced by admiration of the journal's founder; it is doubly grateful to us therefore to note the high appreciation of him now shown in a publication manifestly unswayed by prejudice in his favor.

No chief of an army medical service ever planned or did more for the welfare of the service itself and for the officers and enlisted men of the army, for the development of military medicine in general, or for the glory of his country in the annals of medicine than was conceived and accomplished by Surgeon General Hammond at a time when all the power of an ordinary mind might well have been engrossed in purely administrative work. We were in the gloomiest period of a war of unprecedented magnitude, a fratricidal strife that threatened to end in our practical extinction as a nation; yet Hammond found time to plan great hospitals, to lay the foundation of the Army Medical Museum and the Army Medical School, to provide for the history of the war from the medical point of view, and to direct professional study of the diseases and injuries incident to warfare. In the midst of this great work he was removed from office—for virtually no reason at all, as every fair-minded and well informed person must now admit. That he was not crushed by the blow, but rose to rare eminence in civil practice and in medical literature and eventually achieved an honorable reinstatement, is evidence enough of the man's greatness.

It may interest our readers to know that at the time of his death Dr. Hammond was under engagement to prepare for the *New York Medical Journal* an account of the circumstances under which his famous "calomel order" was issued, an order for which he suffered much unjust criticism, coupled with no little abuse. This injustice, as well as the malicious detraction that followed him into civil life and was not wholly silenced by his death, he bore with the equanimity displayed only by the great. Justice to his memory has been tardy, but it has now become complete.

BACKACHE.

As a matter of course, this very common symptom of diseases ranging from the trivial to the dangerous is not made the subject of separate consideration in the textbooks of medicine; what there is to read about it is scattered through the chapters devoted to the various affections in which it figures as a more or less constant phenomenon. A writer who signs himself "F." has recently given us a somewhat sketchy account of the diagnostic significance of backache and of the measures that he has found useful in alleviating it (*Journal des praticiens*, July 2nd). Of course, he eliminates those pains in the back that accompany actual disease of that region, though he deals with the entire dorsal and lateral portions of the trunk as regards the one symptom of pain. "F." does not seem to have encountered the multitudes of patients with backache as we meet with them in America who attribute the ailment to "kidney trouble." The commonest form of backache with us involves a region decidedly lower than the kidneys in situation, and we are generally able to inform its subjects at the start that their pain has no connection with those organs. Barring the occasional effects of that protean disease influenza, most of the backaches that we meet with are due either to affections of the lumbar muscles or to reduced conditions of the general strength, especially to impoverishment of the blood or to that depreciated state which, for want of a better name, we term neurasthenia. Those that are of muscular origin usually yield readily to local applications of dry heat or to the passage of the induced electrical current. The others are remediable only by overcoming the general conditions on which they depend.

It is erroneous, we think, to regard pain in the back as in any special sense an expression of uterine disease, though affections commonly termed uterine are apt to be accompanied by those depraved states of the blood or that depreciated efficiency of the nervous system that are prone to give rise to habitual pain in the back. Such conditions often aggravate pelvic disease, if they do not give rise to it, or they may be among its results, and accordingly the one or the other is to be looked upon as fundamental from the point of view of treatment, though both must usually be overcome before the resulting backache will disappear.

The French writer whose article we have mentioned is in no wise responsible for the views that we have here expressed, but we would show our appreciation of the service rendered by any competent writer who deals with a symptom as he has dealt with backache.

THE NASCENT DRUG.

It has long been generally held that certain chemical elements having medicinal virtues were more energetic in the nascent state than under other circumstances. Especially, perhaps, has this been thought of such elements as iodine, hydrogen, and oxygen. By the nascent state we understand that of an element at the instant of its liberation from a compound. We do not remember to have heard any satisfactory reason assigned for the supposed augmentation of potency, and now (but not now for the first time, it appears, since he points to researches of his dating back to 1877) there comes along a man of science, Dr. D. Tommasi (*Bulletin médical*, July 9th), who declares that it is not the nascent state in itself that heightens the chemical activity of a body, but the heat that is disengaged at the time of its liberation.

Tommasi holds that certain compounds are "endothermic," that is, they absorb and imprison heat at the time of their formation, and give it out again when they are broken up into their chemical constituents. In a foot note he qualifies this statement, rather unnecessarily, it seems to us, by remarking that, properly speaking, it is not the compounds themselves that are "endothermic," but the reactions necessary to their formation. The disengagement of this latent heat, he says, accounts for the chemical energy of nascent hydrogen, for example. In its ordinary free state hydrogen displays no very decided affinities, but in its nascent state it shows a pronounced reducing power, transforming ferric into ferrous salts, changing arsenous and sulphurous acids into arsenated and sulphureted hydrogen, and converting blue into white indigo. All this, he says, it does by reason of the heat set free, and he indicates the number of calories liberated when hydrogen is recovered from a series of its compounds.

If, says Tommasi, we attach therapeutic importance to the property possessed by certain peroxides, notably those of sodium and magnesium, of decomposing with the disengagement of oxygen on contact with the gastric juice, that importance depends on the heat liberated, and not on the nascent state *pèr se*. In the article referred to he gives no proofs of the truth of his statements, but perhaps they are to be found in his previous publications, to which he refers the reader for further details. They are his

Traité d'électrochimie, his *Traité des piles électriques,* and his *Formulaire physicochimique.* Whether it is the heat disengaged or the nascent state itself that may heighten the therapeutic activity of a substance is perhaps of little practical importance, but it is well to be right in our interpretation of the phenomenon.

THE MANAGEMENT OF "RIGID OS" IN LABOR.

A young friend asked me, the other day, "What do you do for 'rigid os?'" "Nothing," I answered, "except wait." Knowing the man, I replied accordingly, and yet in the large proportion of cases it is the proper thing to do, whether the obstetrician is old or young, beginner or expert. The exceptional case is so distinctly sui generis, and due to a single factor or to several combined, that any cut and dried plan of management is likely to be unsatisfactory. As a matter of fact, non-dilatability of the uterine outlet in labor is one of the curiosities of obstetrics. Like many of the other emergencies of delivery, it troubles the younger practitioner more often than the older, presenting itself less and less frequently as bedside experience increases.

Tardy dilatation, or torpor, of the os and true stenosis are obviously two quite different conditions. Either is largely restricted, clinically, to primiparæ, and unusual after the mouth of the uterus has been once fully stretched by the passage through it of a full term child. In multiparæ it may be explained by a cicatrix resulting from a former delivery or reparative operation, or by disease acquired in the interim of pregnancy. Of the two conditions, the first is that which is most common, manifesting itself as a perversion of function rather than an arrest of it; the second, while being very exceptional, is anatomical only.

Tardy relaxation of the uterine outlet is found in the labors of two types of patients—the plethoric, muscular woman, in whom the circular muscles of the cervix oppose equal resistance to the pull of the longitudinal muscles of the contractile portion, and the delicate, hothouse girl, in whom neither local nor general muscular energy is to be looked for. As would be expected in two such contrasted persons, the dynamic force of each uterus varies widely: in the first, labor is strenuous, she wears out both herself and her attendants in apparently effective work, and yet no definite progress is being made in dilatation; in the second woman pains are infrequent, feeble whenever present, and labor drags along to the exhaustion of nervous energy and morale.

It has seemed to me that tardy relaxation of the os is more likely to occur in young women who have a menstrual history of dysmenorrhœa associated with the clear, watery form of leucorrhœa indicative of endotrachelitis. Whether this dysmenorrhœa is due to congenital anomalies of structure or to acquired causes, which we vaguely call functional, is immaterial to the present purpose. But the facts that dysmenorrhœa is often cured by pregnancy and that the so called "rigid os" is generally restricted to the first delivery may bear out the statement made above. *En passant,* I believe that the vomiting of early pregnancy is more to be expected in women who have suffered with dysmenorrhœa than in those for whom menstruation is painless. The treatment of tardy relaxation, or what seems in certain cases to be mere torpor, of the os is either temporizing or active, the choice of either depending upon the kind of patient, previously indicated.

I. Temporizing Treatment.—For the strong, energetic woman the general line of management should be depressant rather than stimulant. An emetic will often do surprising good. (Making the patient swallow a lock of her hair was a favorite expedient in these cases with one of the pioneers in medicine in the State of Maine.) Very hot normal salt douches, repeated every two hours or oftener, are of great service, the time-honored enema of bromide and chloral is the resource of many practitioners, but best of all I like to give a full dose, a quarter to half a grain, of morphine and one one hundred and fiftieth of a grain of atropine, hypodermically. The effect of the hypodermic is often surprisingly quick, complete relaxation generally following within two hours or even sooner. Reports are increasing in number of the good effects of cocaine in these conditions. I have known a tampon saturated with a twenty per cent. solution to relax a resisting cervix in a few minutes when all other routine treatment had failed entirely. There seems to be no general absorption of the drug, when thus applied to the os, even in these massive doses, but I should prefer to reserve them for such cases as had withstood less heroic measures. I have had no experience with inunctions of belladonna or atropine to the cervix; it seems a crude practice in this more scientific age, and such ointments, as ordinarily dispensed, are certainly open to the objection of being non-sterile.

For the lethargic, anæmic woman, of that kind who think motherhood is always a misfortune and never an honor, "rigid os" is a synonym for uterine apathy. Here the management should begin with temporizing, though later it may require to be more active. Mental stimulus is commonly more indicated than bodily. All distracting, well meant interference of friends should be checked; conservation of the body as well as of the mind is imperative, but it is unwise to confine the patient to bed, certainly through the day, except during short periods for evident weariness or change of environment. In these cases I am in the habit of using hypodermics of strychnine, one thirtieth of a grain, every three or four hours, supplemented occasionally by a single dose of ten grains of quinine, the latter salt undoubtedly intensifying uterine contractions when already existing. The coal tar derivatives are unquestionably analgetics, but the problem is not how to lessen pain in the abstract, but how to strengthen pains in the concrete. Antipyrine, phenacetin, and their congeners should be restricted to the sthenic class of women, for whom in this particular condition their depressant action is desirable. An occasional hot douche is beneficial for its local stimulant effect.

Beyond all else, professional encouragement is of the utmost importance. "Everything is all right," cannot be told her too often. Assure her that tedious labor is very common among young women with their first children, and tell her that you have carried many women successfully through just such confinements as this is, particularly her friend, Mrs. So and So. These cases demand almost as much patience from the obstetrician as from the woman, and their conduct has made or marred the future of many a young physician.

II. Active Treatment.—Here selection of the special method of dilatation depends much upon the personal bias of the attendant for or against operation. So far as mechanical dilators are concerned, I much prefer the hand to any other instrument. It is always under the control and sense of the operator, and its results, so far as injuring the cervical sphincter is a factor, are more favorable than with other agents. Under full anæsthesia rigidity yields to manual pressure, using either the Harris or Edgar method of dilatation; of course, more slowly than with metallic dilators, but more effectively than under the elastic hydrostatic pressure of rubber bags. The advantages of the latter are decidedly weakened by their unreadiness and difficulty of sterilization, and Barnes's bags have the important defect that they are likely to push aside the presenting part from the outlet, though this particular action is not a characteristic of the Champetier de Ribes apparatus or of the later American inventions. The Bossi dilator and its recent modifications are as yet too radical for general use, but in the hands of the expert are undoubtedly valuable. Finally, careful, tentative traction against the resistant tissues with the forceps should be attempted, though its usefulness is restricted to the last half of complete opening. And while the obstetrician is doing all for his patient, in this emergency of her life, which he thinks best, he must

> "Arm the obdured breast
> "With stubborn patience as with triple steel."

STANLEY P. WARREN.

THE ÆTIOLOGY OF INFECTIOUS DISEASES.

According to a daily newspaper, the surgeon general of the Marine Hospital Service is reported recently to have said: "After the brilliant discoveries by Pasteur and Koch, it was thought that the presence of the pathogenic microbe organism was like the bite of a venomous snake, surely poisonous. But now we know that there are other conditions besides the presence of the microbe necessary to produce the disease." Surely the doctrine so tersely expressed by the late Dr. King Chambers, of London, in his *Lectures Chiefly Clinical*, delivered and published away back in the first half of the last century, that "for the act of poisoning to occur two things are necessary—first, a poison, and, secondly, a person apt to be poisoned," and reiterated again and again in various ways under the parable of the seed and the soil, etc., can never have been so universally lost sight of as the surgeon general's reported words would seem to imply! Doubtless, more attention has been given of late to the "influence of the soil" in the production of disease than was the case a few years ago; but with all the advanced science of the bacteriologists, the evidence of "predisposing causes" accumulated by observant clinicians, though it may have fallen under a cloud, has never been entirely obscured.

SMALLPOX IN PHILADELPHIA.

We are glad to congratulate Philadelphia on being absolutely free of smallpox for the first time in three years. The credit is due to the indefatigable efforts of the department of health, under Dr. Martin, in enforcing vaccination upon an unwilling foreign population in the face of difficulties that only he and his associates can properly appreciate.

THE LATE SIR JOHN SIMON.

While it is chiefly as an active sanitarian that Sir John Simon will be remembered, there are doubtless many of our readers who will never forget his masterly chapter on inflammation in Holmes's *System of Surgery*. His work, too, in contention with the antivaccinationists, many years ago, ought never to be forgotten.

A DANGER IN THE GYROMELE.

An Iowa physician has lately informed us of a serious mishap that befell him in the use of this ingenious instrument, that, namely, of its breaking, the terminal portion being left in the stomach. Such an instrument ought always to be tested as to its condition before it is employed.

RATIONAL MEDICINE IN CHINA.

We have always rated the work of the medical missionaries in China very high, and we are glad to see it announced that the Dowager Empress has given a sum of money for the establishment of an institution for teaching medicine, the management to be confided to the missionaries.

DEATH FROM RHUS POISONING.

Rhus poisoning is often a most grievous affliction, but it rarely proves fatal. A case of death attributed to it is reported in the *Bulletin of the Health Department* of Chicago for the week ending July 23rd. The patient, a man forty-two years old, had suffered intensely from the poisoning for two months.

News Items.

Society Meetings for the Coming Week:

MONDAY, *August 1st.*—New York Academy of Sciences (Section in Biology); German Medical Society of the City of New York; Morrisania Medical Society, New York (private); Brooklyn Anatomical and Surgical Society (private); Corning, N. Y., Academy of Medicine; Utica, N. Y., Medical Library Association; St. Albans, Vt., Medical Association; Providence, R. I., Medical Association; Chicago Medical Society.

TUESDAY, *August 2nd.* Elmira, N. Y., Academy of Medicine; Ogdensburgh, N. Y., Medical Association; Syracuse, N. Y., Academy of Medicine; Hudson, N. J., County Medical Society (Jersey City); Androscoggin, Me., County Medical Association (Lewiston); Medical Society of the University of Maryland (Baltimore).

WEDNESDAY, *August 3rd.*—New York Academy of Medicine (Section in Public Health); Harlem Medical Association of the City of New York; New York Genito-urinary Society; Medical Society of the County of Richmond, N. Y. (New Brighton); Bridgeport, Conn., Medical Association.

THURSDAY, *August 4th.*—Brooklyn Surgical Society; Society of the Physicians of the Village of Canandaigua, N. Y.; Atlanta Society of Medicine.

FRIDAY, *August 5th.*—Clinical Society of the New York Postgraduate Medical School and Hospital; the Manhattan Clinical Society.

SATURDAY, *August 6th.*—Miller's River, Mass., Medical Society.

NEW YORK.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending July 23, 1904:

	Week end'g July 16.		Week end'g July 23.	
	CASES.	DEATHS.	CASES.	DEATHS.
Measles	269	13	201	7
Diphtheria and croup	309	41	275	25
Scarlet fever	89	7	88	3
Smallpox	..	..	2	..
Chickenpox	16	..	29	1
Tuberculosis	380	134	299	168
Typhoid fever	60	10	65	13
Cerebrospinal meningitis	..	23	..	22
Totals	1,123	228	959	239

Funds for the Board of Health.—At the meeting of the Board of Aldermen on July 26th, the sum of $243,000 was appropriated for the expenses of the board of health of the city.

High Infant Death Rate.—Notwithstanding the comparatively low range of temperature this season, the death rate among the infant population has been higher this summer than for the corresponding period of last year. While the matter is under investigation, no specific reason has been discovered for this condition of affairs.

A New Hospital Meeting Down Town.—Dr. Steven Cook, president of the board of police surgeons, has recommended the establishment of a hospital in the vicinity of the Fifth Precinct Station in Oak Street. This would be in the centre of a district east of Broadway and south of Canal Street, which is now insufficiently supplied with hospital facilities. A hospital at the place indicated would also furnish an excellent base for an ambulance service covering the congested quarters in the vicinity of the bridge terminals.

A Pest of Mosquitoes.—Numerous and very strenuous complaints of the unusual number of mosquitoes in the southern part of Brooklyn have directed the attention of the health department to this subject, and at the regular Tuesday morning conference held at the office of Health Commissioner Darlington, this week, the mosquito plague at Coney Island was discussed with a view to securing some abatement of the nuisance. The commissioner has determined, so it is reported, that an effort shall be made to at least diminish the number of mosquitoes by sprinkling the marshes between Coney Island and Brooklyn with crude petroleum, though it is not expected that any permanent or adequate relief will follow until the work of draining the marshes and filling in, which is now going on, has been completed.

First Aid Hospitals in the Bronx.—The health department has installed hospital tents in Van Cortlandt, Pelham, Crotona, and Bronx parks with the view to giving immediate aid to injured persons, so as to avoid the long delays which have hitherto followed the summoning of medical aid from established hospitals. Owing to the distance at which these parks lie from any of the hospitals, a delay of from three quarters to an hour or more generally occurs when an accident in any of these parks requires medical attention. The temporary hospitals consist of tents of brown canvas about fifteen feet long and seven feet wide. Each tent is equipped with a complete set of surgical instruments and supplies for immediate relief, an operating table occupies the centre of the room, and cots and chairs are also provided. Three attendants are attached to each of the tents to take turns at service, so that some one is always ready and enabled to afford immediate relief in case of minor accidents. Results particularly in Pelham and in Bronx parks have been very satisfactory, a number of cases having been treated which required no further treatment than that which could be rendered at the temporary stations.

PHILADELPHIA.

Philadelphia Health Report.—*The Report on Contagious Diseases, compared with that of the previous week, is as follows:*

	Week end'g July 16.		Week end'g July 23.	
	CASES.	DEATHS.	CASES.	DEATHS.
Smallpox	1	..	..	..
Diphtheria	35	7	41	4
Scarlet fever	36	2	43	1
Typhoid fever	68	10	65	11
Consumption	..	64	..	52
Cerebrospinal fever	..	..	..	..
Totals	140	83	149	68

The Medical Society of the Woman's Hospital of Philadelphia was organized June 30th at a meeting of the medical staff. Dr. Mary W. Griscom was elected president for the ensuing year.

Presbyterian Hospital Improvements.—The Presbyterian Hospital in Philadelphia is about to begin the erection of a four story maternity pavilion on its property at Thirty-ninth Street and Powelton Avenue.

German Hospital Improvements.—The German Hospital in Philadelphia will, in the near future, make some extensive alterations and improvements in its buildings, at Girard and Corinthian Avenues.

Changes in the Faculty of the University of Pennsylvania.—Dr. Elisha H. Gregory, Jr., assistant professor of anatomy, has resigned. Dr. Colin C. Stewart. assistant professor of physiology, has resigned. Dr. Edward C. Ludholz, formerly assistant demonstrator of physiology, has been elected demonstrator of physiology.

The Weather in Philadelphia.—The past week has been a very trying one to the people of Philadelphia. The maximum temperature on Saturday, July 16th, was 93° and the humidity 75. On Sunday, July 17th, the temperature was 89° and the humidity 53. On July 18th, the temperature was 89° and the humidity 82. On July 19th, the temperature was 96° and the humidity 58. On July 20th, the temperature was 87° and the humidity 44. During this period there were two deaths and twenty-seven prostrations from the combined influence of heat and moisture.

Personal Notes.—Dr. Wilmer Krusen sailed for Europe on the *Friesland,* July 16th.

Dr. J. B. Shaw, of Delaware Water Gap, Pa., died suddenly on July 19th. He had just reached the home of one of his patients who had been injured by a mowing machine. Dr. Shaw was president of the Monroe County Medical Society.

Dr. A. J. Atkinson, of Lewistown, Pa., died on July 18th, at the age of 83 years. Dr. Atkinson was a surgeon in the army during the civil war.

Dr. Byron C. Pennington, of Atlantic City, N. J., is seriously ill. Dr. Pennington is president of the Atlantic County Medical Society, and was active during the recent meeting of the American Medical Association in June.

Robert M. Smith, superintendent of the Philadelphia General Hospital, died July 20th, after an illness of three days.

A Decision on the Question of Sunday Ice Selling.—We recently noted an attempt on the part of the Sabbath Association to prevent the delivery of ice on Sunday. One of the icemen, who was fined by the magistrate, appealed to the Court of Common Pleas. In his opinion, whereby he reversed the judgment of the magistrate, the judge said:

> The question left open for determination is whether the sale and delivery of ice on the first day of the week, commonly known as Sunday, is a violation of the law.
>
> The act of April 22, 1794, 3 S. L. 177, p. 1, provides that if any person shall do or perform any worldly employment or business whatsoever on the Lord's Day, commonly called Sunday, he shall for every such offense forfeit and pay $4. In recognition of the principle that the Sabbath was made for men, and not man for the Sabbath, works of necessity and charity are excepted from the implied prohibition of the statute.
>
> The question before us resolves itself into the inquiry whether the sale of ice under the circumstances above detailed is to be regarded as falling within either of the two classes of the exception.
>
> While it is possible to conceive of circumstances under which the distribution of ice must well be considered an act of charity, as, for example, where it is given away gratuitously, or sold at cost, not for purposes of advertisement, but out of a humane desire to relieve the sick or make

life more comfortable for the poor, we can hardly adopt the view that the act complained of in this case is to be included in that category.

We are, however, disposed to regard ice as one of the necessities of life. For the preservation of many articles of food, such as butter, milk, fish, and meat, its use, particularly during the months of summer, when the heat of our climate is almost tropical, is absolutely essential. For the successful treatment of various diseases, notably brain fever and typhoid fever, ice is indispensable. We have no hesitation, therefore, in pronouncing its delivery a work of necessity, even when supplied at a price profitable to the vender and in the course of the vender's regular employment or business.

GENERAL

Statement of Mortality in Chicago, Ill., for the Week Ending July 23, 1904, compared with the preceding week and with the corresponding week of 1903. Death rates computed on United States Census Bureau's estimated mid-year populations of 1,932,315 for 1904 and of 1 873,880 for 1903:

	July 23, 1904.	July 16, 1904.	July 25. 1903.
Total deaths, all causes	538	416	513
Annual death rate per 1,000	14.54	11.25	14.28
By sexes—			
Males	290	243	286
Females	248	173	227
By ages—			
Under 1 year	151	84	143
Between 1 and 5 years	61	31	63
Over 60 years	81	81	55
Important causes of death—			
Acute intestinal diseases	118	53	108
Apoplexy	9	12	9
Bright's disease	33	34	29
Bronchitis	4	4	4
Consumption	66	44	57
Cancer	19	17	19
Convulsions	7	7	15
Diphtheria	4	6	9
Heart diseases	26	34	28
Measles	2	2	5
Nervous diseases	21	24	23
Pneumonia	25	25	36
Scarlet fever	1	1	5
Suicide	17	13	5
Smallpox	1	..	1
Sunstroke	17	..	2
Typhoid fever	9	4	5
Violence (other than suicide)	32	30	36
Whooping cough	3	3	7
All other causes	114	103	110

"All other causes" include 3 deaths from tetanus, of which 1 was due to injuries from a toy pistol on July 4th.

The Monmouth Memorial Hospital, of Belmar, N. J., will be the beneficiary of an elaborate beach fête to be given in the new casino by the ladies of the Belmar Club in the second week of August.

Chicago Medical Exhibit at the World's Fair.—The College of Physicians and Surgeons of Chicago, a department of the University of Illinois, has a unique exhibit in the south balcony of the Palace of Education and Social Economy. The exhibit differs from those of the German medical institutions, in the fact that the anatomical and pathological specimens are portions of real bodies instead of wax casts.

Physicians as Saloon Keepers.—In our issue of July 23rd, we mentioned the fact that Kentucky physicians, who dispense whiskey and charge therefor, must take out a Federal license or suffer the consequences. We failed to note that this interpretation of the law applies to all physicians in the United States and, unless alcoholic liquors merely form part of a prescription, they must not be charged for or else a license to sell liquor must be obtained.

Toronto, Canada, General Hospital.—The new medical house staff for the Toronto General Hospital came on duty on July 14th, and this year a new system was introduced. Instead of the whole of the present staff of ten house surgeons retiring, as has hitherto been the custom, three of the existing staff—namely, Dr. Arthur B. Wright, Dr. N. Maclaren, and Dr. W. A. McCanley, will remain until January next, and will be known as senior house surgeons. There will be fourteen of the latter, and, in addition, six others, who will neither board nor reside in the hospital. The effect of this new departure will be that in future there will not be at one and the same time a complete exodus of experienced men with their places filled by qualified, though inexperienced, men. Next year three of these house surgeons now appointed will be chosen to remain for six months longer in the same way as is to be done now.

Home for Incurables, Atlanta, Ga.—This home was formally opened on July 18th by prayers, and an address by Mayor Howell. The history of the home shows what can be done by a band of devoted women whose hearts responded to the ever present appeal of human suffering. The home was organized by the Atlanta Circle of King's Daughters in January, 1901, and was inaugurated in a small and old frame building at 46 Church Street, where, until the recent completion of the beautiful new building, the work of housing and providing for the incurable sick was tirelessly carried on. Since the opening of the home more than 100 patients have been cared for, of whom about thirty have passed away while in the hospital. At present there are eleven inmates in the new building, which can accommodate as many as fifty with comfort.

The Mississippi Valley Medical Association will hold its thirtieth annual meeting, under the presidency of Dr. Hugh T. Patrick, of Chicago, Ill., at Cincinnati, Ohio, October 11th, 12th, and 13th, with headquarters at the Grand Hotel, on the first floor of which will be located the meeting places and exhibits. The 1904 meeting bids fair to excel previous ones in point of interest, attendance, and scientific work. The annual orations, one of the chief features of these delightful meetings, will be delivered by Dr. William J. Mayo, of Rochester, Minn., in Surgery, and Dr. C. Travis Drennen, of Hot Springs, Ark., in Medicine. Those desiring to contribute papers are requested to forward their title, with short abstract, to the assistant secretary, Dr. S. C. Stanton, Masonic Temple Building, Chicago, Ill., as early as possible, that the programme committee may assign them places. Reservation of rooms should be made early, either to the hotel direct, or through the chairman of the committee of arrangements, Dr. B. M. Ricketts, Cincinnati. The usual reduced railroad rates will be in effect. Henry Enos Tuley, M. D., secretary.

Medical Society of the Missouri Valley.—The seventeenth annual meeting of this association will be held Thursday and Friday, August 25th and 26th, at Council Bluffs, Ia. An entertaining programme is being prepared, and the adoption of a new constitution and by-laws, placing this society in line with the American Medical Association, will make this one of the most important meetings in its history. The committee on arrangements extends a cordial invitation to the profession, and announces an excursion to Manawa Park on Thursday evening, where a smoker will be given for the entertainment of the visitors. Headquarters and meeting place at Grand Hotel. Initiation fee to the society, one dollar; annual dues, one dollar. Following is the preliminary programme:

The Clinical Importance of the Reflexes, by Dr. H. Douglas Singer, of Omaha; Paper, by Dr. A. L. Wright, of Carroll; Congenital Dislocation of the Hip, by Dr. J. W. Cokenower, of Des Moines; Recurrent Dislocation of Shoulder Joint and Its Treatment, by Dr. A. D. McKinnon, of Lincoln; High Forceps Operations, by Dr. Mary Strong, of Omaha; Temperature, Its Significance and Treatment, by Dr. A. E. King, of Blockton; Treatment of Prolapse of Rectum, by Dr. A. C. Stokes, of Omaha; Two Gallbladder Cases Presenting Some Unusual Conditions, by Dr. Harry Everett, of Lincoln; Some Recent Progress in the Surgery of the Large Intestine, by Dr. J. E. Summers, Jr., of Omaha; The Ocular Manifestation of Syphilis, by Dr. W. L. Kenney, of St. Joseph; Affections of the Lacrymal Apparatus with Deformities Repaired by Paraffin Injections, by Dr. Flavell B. Tiffany, of Kansas City; Paper, by Samuel C. James, of Kansas City; Is It Mental Trauma? by Dr. S. Brover Burnett, of Kansas City; Tinea Trichophytina, by Dr. R. C. Moore, of Omaha; Treatment of Diabetes, by Dr. LeRoy Crummer, of Omaha.

Two Neglected Important Causes of Sickness.—At the regular quarterly meeting of the Michigan State Board of Health, at Lansing, July 8, 1904, Dr. Baker, special committee on the subject, reported the results of an investigation of the prevalence in Michigan of gonorrhœa and syphilis, during the first half of 1904, as follows: Of the regular weekly card reports, made by representative physicians in general practice relative to sickness from twenty-nine prominent diseases, twenty-seven per cent. of all the reports stated the presence of gonorrhœa, and twenty-two per cent. stated the presence of syphilis. The reports were received from 29 cities, 82 villages, and 3 townships. The average number of weeks gonorrhœa was reported from each of the cities was 6.4, and of syphilis 5.8. In each village the average number of weekly reports of gonorrhœa was 3.7, and of syphilis 2.5. In each township the average number of weekly reports of gonorrhœa was 2.3, and of syphilis 0.7. Arranging the twenty-nine diseases in the order of their greatest reported prevalence, during the twenty-four weeks, only five diseases exceeded gonorrhœa and only nine exceeded syphilis in the apparent sickness therefrom. Much of the success of this investigation was due to the fact that the name of any individual having either of these diseases was not required; therefore the reports were probably complete.

The American Association of Obstetricians and Gynæcologists will held its seventeenth annual meeting at the Hotel Monticello, St. Louis, Tuesday, Wednesday, Thursday, and Friday, September 13, 14, 15, and 16, 1904, under the following administration: President, Dr. Walter Blackburn Dorsett, of St. Louis; vice-presidents, Dr. Aaron B. Miller, of Syracuse; and Dr. William D. Haggard, of Nashville; secretary, Dr. William Warren Potter, of Buffalo; treasurer, Dr. Xavier O. Werder, of Pittsburgh; executive council, Dr. Edwin Ricketts, Dr. Walter B. Chase, Dr. A. Vander Veer, Dr. Lewis S. McMurtry, Dr. L. H. Dunning, and Dr. Rufus B. Hall. The Hotel Monticelio has been selected for the headquarters of the association, the management of which should be addressed concerning rooms and rates. The following list of papers has been offered:

[NOTE.—All papers read at the meeting in full or by title become the sole property of the association, and cannot be published, except in the official manner.] President's Address, by Dr. Walter B. Dorsett, of St. Louis; Retrodisplacements as a Cause of Sterility; Report of Pregnancies Following the Alexander Operation, by Dr. Herman E. Hayd, of Buffalo; title to be announced, by Dr. J. Henry Carstens, of Detroit; Cyst Adenoma of the Pancreas, by Dr. L. H. Dunning, of Indianapolis; Some Clinical Reasons for Advising Early Operations for Fibroid Tumors of the Uterus, by Dr. Rufus B. Hall, of Cincinnati; Operative Treatment for Relief of Painful Menstruation in Virgins, by Dr. W. A. B. Sellman, of Baltimore; The Relative Merits of Bag and Metal Dilatation, of Cervical Incisions, and of Cæsarean Section in Cases of Accouchement Forcé, by Dr. E. Gustav Zinke, of Cincinnati; title to be announced, by Dr. J. J. Gurney Williams, of Philadelphia; Pseudomembranous Tuberculous Peritonitis, by Dr. H. W. Longyear, of Detroit; The Treatment of Acute Perforated Gastric Ulcer, by Dr. Henry Howitt, of Guelph; Shall We Remove all Fibroid Tumors of the Uterus Upon Diagnosis? by Dr. Thomas B. Eastman, of Indianapolis; Scar of Sigmoid Mesentery the Cause of Spastic Obstruction of the Bowels; with Report of Three Cases, by Dr. Hugo O. Pantzer, of Indianapolis; Surgical Treatment of Cicatricial Atresia of the Vagina, by Dr. Charles G. Cumston, of Boston; title to be announced, by Dr. John D. S. Davis, of Birmingham; The Advantage of Limiting Artificial Interference in Obstetric Practice, by Dr. A. P. Clarke, of Cambridge; Uterine Myomas with Specimens, by Dr. Joseph H. Branham, of Baltimore; Use of Antistreptococcic Serum in Septicæmia and Scarlatina, with Case Histories, by Dr. A. G. Hamilton, of Springfield, Neb.; An Unusual Case with Many of the Symptoms of Appendicitis, by Dr. Magnus A. Tate, of Cincinnati; Conservation of the Natural Resistance of the Patient in Surgical Work, by Dr. Robert T. Morris, of New York; title to be announced, by Dr. J. E. Sadlier, of Poughkeepsie; Skeleton of an Ectopic Fœtus Removed by Vaginal Cystotomy, by Dr. William D. Haggard, of Nashville; title to be announced, by Dr. L. S. McMurtry, of Louisville; title to be announced, by Dr. Charles A. L. Reed, of Cincinnati; Infantile Intestinal Diverticula, by Dr. J. W. Hyde, of Brooklyn; Emergency Operations in Abdominal Surgery with Cases, by Dr. Edwin Ricketts, of Cincinnati.

American Electrotherapeutic Association.—The fourteenth annual meeting of the American Electrotherapeutic Association will be held at the Inside Inn, St. Louis, Mo., September 13, 14, 15, and 16, 1904. The scientific sessions will be held only in the mornings, leaving the afternoons free in which to visit the attractions of the fair. It is believed that a large proportion of the members of the association will be present this year, as the World's Fair offers many attractions in itself; and in addition to the convention of our association, there will also be held in St. Louis, from the 8th to the 17th of September, the annual convention of the American Röntgen Ray Society and the convention of the International Electrical Congress. These events will make St. Louis a point of great interest at the time of the convention. As the convention is to be held at the Inside Inn, it is very desirable that all the members should have their quarters in this hostelry; hence if members have not already engaged their rooms, it would be wise for them to write and do so at once on the reservation blank contained in the descriptive pamphlet of the Inn sent them two months ago.

The preliminary programme to date, subject to amplification and revision, appears below:

Some Observations on the Medical Uses of the Constant Current, by Dr. Daniel Roberts Brower, of Chicago; The Therapeutic Application of the Continuous Current, by Dr. Truman Abel Pease, of Norwood, N. C,; Exhibition of a New Current Controller and Discussion of the Methods of Therapeutic Control of Street Main Currents, by Dr. George Betton Massey, of Philadelphia; The Cataphoric Treatment of Cancer, by Dr. Amedee Granger, of New Orleans; Clinical Reports of Some Interesting Cases Treated by Electricity, by Dr. Samuel Fairweather Wilson, of Montreal; Clinical and Experimental Effects of Electrical Currents of High Potential and Frequency, by Dr. John Holcomb Burch, of Baldwinsville, N. Y.; Therapeutic Action of High Frequency Currents, by Dr. Walter Henry White, of Boston; Electrotherapy of the Psychic and Sympathetic Neurone Centres, by Dr. Charles H. Hughes, of St. Louis; The Physiotherapy of Neurasthenia, by Dr. T. Rivière, of Paris, France; The Value of the Röntgen Ray in the Diagnosis of Fractures, by Dr. Mihran Krikor Kassabian, of Philadelphia; Diagnosis of Calculi, by Dr. Russell Herbert Boggs, of Pittsburgh; Further Researches in the Treatment of Tuberculosis, by Dr. Jefferson Demetrius Gibson, of Denver; A Case of Hyperidrosis of the Axillæ Cured by the X Ray, by Dr. George H. Stover, of Denver; Violet Light Baths; their Physiological and Therapeutic Effects, by Dr. Ernest Albert-Weil, of Paris, France; The Use of the Ultraviolet Light in Therapeutics, by Dr. Albert Eugene Stern, of Indianapolis; Locomotor Ataxia Successfully Treated with Ultraviolet Rays, by Dr. Joseph Monroe Liebermann, of New York; Some Aspects of Phototherapy, by Dr. Charles Rea Dickson, of Toronto; Phototherapy in Chronic Diseases, by Dr. John Harvey Kellogg, of Battle Creek, Mich.; The Importance of Associating Other Physical Measures with Electricity in Therapeutics, by Dr. William Benham Snow, of New York.

The members of the committee on arrangements are: C. H. Hughes, M. D., chairman; A. V. L. Brokaw, M. D.; John Young Brown, M. D.; C. G. Chaddock, M. D.; Pinckney French, M. D.; Marc Ray Hughes, M. D.; B. M. Hypes, M. D.; L. H. Laidley, M. D.; and W. G. Moore, M. D., all of St. Louis. These gentlemen have arranged social features and amusements for the ladies who will accompany members, which will appear in the completed programmes which will be distributed at St. Louis. Any further information can be obtained by writing to the secretary or the chairman of the committee on arrangements.

International Electrical Congress of St. Louis, September 12-17, 1904.—We are informed that under the auspices of the Louisiana Purchase Exposition, an international electrical congress will be held in St. Louis during the week September 12th to 17th.

The congress will be divided into two parts—namely:

(1) A chamber of government delegates appointed by the various governments of the world, invitations to which were issued at the beginning of the year from the United States Government. The transactions of the chamber of delegates will relate to matters affecting international questions of electrical units, standards, and the like.

(2) The congress at large, divided into eight sections, as follows:

General Theory:
  Section A, Mathematical,
    Experimental.
Applications:
  Section B, General Applications,
  Section C, Electrochemistry,
  Section D, Electric Power Transmission,
  Section E, Electric Light and Distribution.
  Section F, Electric Transportation,
  Section G, Electric Communication,
  Section H, Electrotherapeutics.

Our readers will be interested in section H—the Electrotherapeutic Section.

The president of the committee of organization is Professor Elihu Thomson, of Lynn, Mass. The vice-presidents are: B. J. Arnold, Professor H. S. Carhart, Professor W. E. Goldsborough, C. F. Scott, Dr. S. W. Stratton.

The chairman of section H is Dr. W. J. Morton, of New York, and the secretary is Mr. W. J. Jenks, of New York.

Three hundred and forty-three invitations were issued some months ago to well known workers in electricity, inviting papers for the congress. One hundred and sixty-eight of these invitations were issued to persons residing in countries outside of North America. As a result of these invitations, 105 American and 59 foreign specially prepared papers are promised to the congress. Of these, 5 foreign and 15 American papers are in secton H, as follows:

Section H.

Electrotherapeutics: Chairman, Dr. W. J. Morton; secretary, Mr. W. J. Jenks.

Name of Author and Title of Paper.

Professor M. Benedict, Radiology in the Pathology of the Brain; Dr. J. Bergonie and M. le docteur G. O'Farrill, Some Improvements in Generator Apparatus of High Frequency Currents; Professor S. Schatzky, The Tonic Theory as Biological Basis for the Therapeutic Action of Electricity; Professor S. Schatzky, Experimental Researches on the Treatment of Tuberculosis by Constant Current; Dr. J. Rivière, Physicotherapy of Neurasthenia; Dr. Carl Beck, Recent Advances in Röntgen Ray Science; Dr. Russell H. Boggs, Diagnosis of Calculi by X Rays; Dr. G. G. Burdick, Radiations in Therapeutics; Dr. Margaret A. Cleaves, The Nature of the Changes Established in Living Tissue by the Action of Oxidizable Metals at the Anode; Dr. Charles R. Dickson, Some Observations Upon the Treatment of Lupus Vulgaris by Phototherapy, Radiotherapy, and Otherwise; Dr. Emil H. Grubbe, X Rays and Radioactive Substances as Therapeutic Agents; Dr. T. Proctor Hall, The Principles of Electrotherapeutics; Dr. J. H. Kellogg, Electrotherapeutics; Professor Jacques Loeb, The Control of Life Phenomena by Electrolytes; Dr. John Williams Langley, The Purification of Water for Drinking by Electricity; Dr. G. Betton Massey, The Cataphoric Diffusion of Metallic Ions in the Destructive Sterilization of Cancer and Tuberculous Deposits; Dr. W. J. Morton, Artificial Fluorescence of the Human Organism as a Means of Treating Disease; Dr. C. S. Neiswanger, Static Electricity in Chronic Nephritis; Dr. Clarence E. Skinner, A Large Fibrosarcoma Treated by X Radiance; Dr. William Benham Snow, Static Electricity in Therapeutics.

Up to the 30th of June, 1787 applications to the congress had been received, of which about 1,300 have paid their subscriptions of $5.00 each. Of these, 291 are from countries outside of North America. The following societies will cooperate with the congress at St. Louis, by holding simultaneous conventions and joint sessions:

The American Institute of Electrical Engineers,
The American Electrochemical Society,
The American Physical Society,
The American Electrotherapeutic Association,
The Association of Municipal Electricians.

The following societies will cooperate with the congress by appointing delegates:

The National Electric Light Association,
The Associaton of Edison Illuminating Companies,
The Société Internationale des Electriciens,
The Schweizerischer Electrotechnischer Verein.

It is expected that various other European societies will also cooperate.

Fully 14,600 invitations have been issued to persons interested in electricity all over the world, inviting them to join the congress. It is expected that the Transactions of the congress will attain two or three large volumes. Persons interested in electricity and who desire to join the congress should apply to the general secretary, Dr. A. E. Kennelly, Harvard University, Cambridge, Mass.

Each member of the congress is entitled to receive one set of the transactions. It is intended to issue the transactions of the congress, when printed, to libraries and non-members for $10.00 per set.

Pith of Current Literature.

ZENTRALBLATT FUER INNERE MEDIZIN.

June 11, 1904.

1. Quantitative Determination of Indol in the Fæces, By W. VON MARACZEWSKI.

1. **Determination of Indol.**—Von Maraczewski measured the daily output of fæces, its moisture and nitrogen, its indol and hydrobilirubin contents (the latter by extraction by alcohol, forty c. c. to from one to three grammes of fæces), in a patient whose diet consisted solely of bread and milk. The urine was similariy examined for nitrogen, indican, combined sulphates, and hydrobilirubin. During constipation and while there were frequent movements, the examinations were made, but there was no increase in indol and indican during the former condition. An addition of sugar to the diet increases the indol output in the fæces by three-fold, but there is no change in the amount of indican. Occasionally, there is an increase of indican in the urine with a very small output of indol in the fæces.

June 18, 1904.

1. Is Beri Beri a Disease Sui Generis? By VON UCHERMANN.

1. **Beri Beri.**—Von Uchermann, as chairman of the Norwegian commission to investigate cases of beri beri occurring in Norwegian ships, concludes that the disease is allied to scurvy and is dependent upon the diet. Beri beri occurring on ships is not an infectious, but an intoxicating disease, due to the eating of preserves, in the same way as Asiatic beri beri is caused by the ingestion of rice. It would seem that the two forms of the disease are identical and are of an intoxicating character. There is no essential difference between the toxic action of rice poisoning and that produced by other albuminous substances of the animal or vegetable kingdom, such as preserves.

BERLINER KLINISCHE WOCHENSCHRIFT.

June 13, 1904.

1. Gonorrhœal Stomatitis in Adults, By JUERGENS.
2. Treatment of Renal Inflammations (*To be continued*), By G. KOEVESI, and W. ROTH-SCHULZ.
3. Oxygen Exchange in Basedow's Disease and Acromegaly, By H. SALOMON.
4. Thiosinamine in Gastrointestinal Diseases, By R. BAUMSTARK.
5. Specific Treatment and Vaccination in Tuberculosis (*Concluded*), By E. MARAGLIANO.

1. **Gonorrhœal Stomatitis.** — Juergens describes the case of a man who recently had had a gonorrhœa, who developed, upon the gums and inside the cheeks, a severe diffuse inflammation. It was characterized by a dirty gray deposit which could be easily removed and which had a pronounced tendency to bleed. It required seven weeks to bring about a cure. Bacteriological examination showed spirochetæ and fusiform bacilli, and a diplococcus on culture, which had all the biological properties of the gonococcus.

3. **Metabolism in Basedow's Disease.**—Salomon examined a number of patients with unquestioned Basedow's disease as to the amount of oxygen they used, and found it decidedly increased. He considers this a useful diagnostic sign in suspicious or undeveloped cases. The same thing was noted in four cases of acromegaly which was not influenced by the administration of hypophysis cerebri.

4. **Thiosinamine.**—Baumstark, in five cases of carcinoma of the gastrointestinal tract, used hypodermics of thiosinamine in a twenty per cent. solution of glycerin and water, without any effect. The results in seven cases of benign stricture of the tract were mainly negative, and the author utters a caution against placing too much confidence in the drug.

5. **Vaccination in Tuberculosis.**—Maragliano states his belief that specific treatment is possible in tuberculosis, and that it is possible to render human beings immune against the disease. He describes his experiments minutely, and speaks of the properties of his serum which benefits the general condition of tuberculous patients and acts upon the local lesion, especially in early cases. He reports 2,899 cases, in some of which a cure has lasted from seven to nine years at the present time. Maragliano says one should not expect too much from serum treatment and not much more than from other well recognized methods of treatment. He then describes his method of producing immunity. Recently, he has attempted an actual vaccination by evoking a peripheral focus of tuberculosis without living tubercle bacilli to bring about actively the protective agency.

June 20, 1904.

1. Prevention of Cysticercus Disease, By J. HIRSCHBERG.
2. Destruction of the Drum Membrane by Lightning Flash, By H. BUERKNER.
3. Goldspohn's Operation, By R. KOSSMANN.
4. Test of the Motor Function of the Stomach (*To be concluded*), By H. ELSNER.
5. Treatment of Kidney Inflammations (*To be concluded*), By G. KOEVESI, and W. ROTH-SCHULZ.
6. Artificial Baths, By S. WEISSBEIN.

1. **Cysticercus Disease.**—Hirschberg speaks of the gradual diminution during recent years of the number of cases of cysticercus of the eye. In the last decade, among 65,000 cases of eye disease, he has seen not one. Cysticercus in other parts of the body has diminished in like manner. This improvement Hirschberg attributes to the hygienic measures adopted by the government in the inspection of slaughter houses, as well as to the control exercised in the importation of diseased hogs to Germany. *Tænia solium* is also said to have become much less common since the government inspection of meat was inaugurated.

2. **Drum Injury.**—Buerkner reports the case of a lad who was struck by lightning, and in whom a hole the size of a pea was subsequently found in the drum membrane of the left ear. There was

permanent tinnitus and occasional exudation in the middle ear. Recovery finally ensued except for the tinnitus.

3. **Goldspohn's Operation.** — Kossman describes this operation as a modification of the Alexander operation for the relief of backward displacements of the uterus, in which the inguinal canal is purposely opened, in order to destroy existing adhesions, etc. He has frequently performed the operation and recommends it in cases in which vaginal fixation is not indicated.

4. **Gastric Motor Function.**—Elsner recommends a method for the testing of the motor function of the stomach. One hour after the test meal, he estimates not only the total quantity of the remnant of the meal, but at the same time the quantity of solids left behind. The author describes in detail the method by which he has developed a formula for judging of the solid contents. He says that in conditions in which there is diminished or total absence of hydrochloric acid, the quantity of the solids left after the test meal cannot alone be regarded as a criterion of the motor activity of the stomach.

6. **Artificial Baths.**—Weissbein recommends an apparatus for giving baths of carbonic acid gas in the home. By means of the same apparatus, oxygen or air baths can be administered.

LYON MEDICAL

May 15, 1904.

1. The Cattle Plague in Egypt, By LORTET.
2. The Recent Discussion of Vaccine Before the *Société médicale des hôpitaux*, By CHATIN.
3. Angeioma of the Vastus Internus, By CORNELOUP.

1. **Egyptian Cattle Plague.**—Lortet wishes the French Government to take immediate cognizance of the present cattle plague, the Khedive having addressed him on the subject. He seems to find some connection between this plague and the cholera of 1903, which killed 100,000 people; with the bubonic plague of the same year, which claimed 800 victims; with the epidemic of trypanosomiasis in 1904, which killed 400,000 negroes; and with the chicken cholera of this year, which practically destroyed all the domestic fowl of lower and middle Egypt. The Boers tried immunizing injections of the bile of infected animals, which either saved other animals or apparently killed them instantly. Serums have been tried so far without result, but Lortet advises the study of the pyrosomes found in the red corpuscles of infected cattle.

3. **Angeioma of the Vastus Internus.**—Corneloup mentions a case of this rare disease in a man, aged thirty-eight years, who fell from a carriage twenty years ago and bruised the internal surface of the thigh just above the knee. Three years later the tumor became visible, but was annoying only after considerable exertion. Operation disclosed the nature of the swelling, which was excised without difficulty. The remarkable point was the absence of pain, for very small muscular angeiomata are known to cause the most exquisite suffering.

GAZZETTA DEGLI OSPEDALI E DELLE CLINICHE.

April 24, 1904.

1. A Rare Arrangement of Cooper's Fascia at the Level of a Direct Hernia of the Bladder, By L. VACCARI.
2. Fracture of the Left Hypocondyle, By S. PASCOLETTI.
3. Alopecia Areata Following an Injury, By V. RAMAZZOTTI.
4. Intravenous Injections of Corrosive Sublimate in Puerperal Infection, By G. FABIO.

3. **Baldness Following an Injury.**—Ramazzotti reports the case of a young man, twenty-six years of age, who developed alopecia areata as the result of a blow upon the head. Two weeks after the injury a patch of baldness, of the size of a cent. appeared at the point where the blow had hit. Three months later this patch was 6.5 cm. in diameter, and entirely devoid of hair. The treatment consisted in the application of a mixture, consisting of Fioravanti's balsam and spirit of camphor. of each 50 parts, together with tincture of pyrethrum and ammonia, of each 3 parts. The author considers this case to be proof of the trophic theory of alopecia areata.

4. **Injections of Corrosive Sublimate in Puerperal Infection.**—Fabio reports a case of puerperal infection of a severe type in which he used intravenous injections of mercuric chloride with excellent results. In discussing the mode of action of the sublimate in these cases the author admits that it is impossible that these very small doses of mercuric chloride which may be introduced into the circulation can have an antiseptic action against severe infections. Recent studies seem to prove that mercuric chloride thus used excites the powers of defense and stimulates resistance of the body, attracting a large number of white cells. In this manner corrosive sublimate assists the body to combat infection.

May 1, 1904.

1. Concerning the Radioactivity of the Mineral Mud and of the Waters of Abano, By DE GIOVANNI.
2. The Importance of Serum Agglutination in the Early Diagnosis of Primary Tuberculosis of the Middle Ear, By A. DE SIMONI.
3. Contribution to the Study of the Cerebral Regions Caused by Gunshot Wounds, By A. AMANTINI.
4. A Case of *Tænia Nana*, By V. NICOLO.

1. **Radioactivity of Mineral Waters.**—De Giovanni discusses the sources of therapeutic action in mineral waters. He thinks that, in the case of mineral waters, the principle which has long since been endorsed by Van Helmont, Boyle, etc., holds good—namely, that the therapeutic virtues of a substance are dependent not only upon the chemical elements which constitute it, but also upon the molecular structure of these elements and upon the " dynamic state " in which they are found. In order to test this, he first used the mineral mud of Abano in the manner in which it is used ordinarily, and then passed a weak galvanic current through it before applying it. In the course of these experiments he found that electric currents which could not be felt by the

patient, when applied directly upon the skin, were very distinctly perceptible, sometimes even with discomfort, when they passed through the mud. Vincentini studied the radioactivity in the muds of Abano, and found it very distinctly developed. He also found this activity to be even more intense in the solid residues of the Abano springs. Nasini confirmed these observations. The present author's comment is that radioactivity is another evidence of a peculiar dynamic state of the substances found in the muds and waters of Abano, and it is in virtue of this dynamic state that they exercise their healing powers.

2. **Early Diagnosis of Tuberculous Otitis.**—De Simoni recommends the employment of the serum agglutination reaction in the early diagnosis of tuberculous disease of the middle ear. He bases his reasoning upon the great usefulness of this reaction in the diagnosis of pulmonary tuberculosis, and the necessity for an early detection of tuberculous trouble in the ear. The test consists in obtaining a small quantity of blood serum from a puncture in a finger of the patient by means of a sterilized pipette, and of testing the agglutinating powers of this serum upon certain specially prepared cultures of the tubercle bacillus, known as "homogeneous cultures," prepared according to the method of Arloing. A known number of drops of this culture is added to a known number of drops of the serum, and the mixture is shaken in a tube and allowed to stand at room temperature for from four to six hours. If a flocculent deposit takes place, the reaction is positive; if the contents of the tube remain unchanged the reaction is negative, and if the sediment is scanty and the cloudiness slight, the reaction is uncertain. A hanging drop preparation of the mixture may also be examined, after preliminary staining, in order to confirm the presence of agglutination. The author has performed this test in twenty cases of middle ear disease, and thinks that it is of great use in determining whether the malady is tuberculous or not.

RIFORMA MEDICA.

May 15, 1904.

1. Contribution to the Study of Septicæmia Due to the *Micrococcus Tetragenes*, By U. BACCARANI.
2. Babinski's Reflex, By S. CERAULO.
3. The Definition of the Area of the Heart by Means of Palpation, G. BASSI.
4. Contribution to the Study of Splenopexy, By A. CECCHERELLI.
5. Vesicular Mole and Eclampsia. By G. RAINERI.

1. **Septicæmia Due to Tetragenes.**—Baccarani publishes his observations upon this rare form of septicæmia, which was first described, in 1892, by Mya and Trambusti, and which is due to the *Micrococcus tetragenes*. About twenty cases of this infection are on record up to the present time. The present case occurred in a woman, aged thirty years, who entered complaining of chills, general malaise, a slight cough, and weakness. She had the general appearance of sepsis, and a soft systolic murmur at the insertion of the third costal cartilage. There was an irregular febrile movement. Then the temperature fell by lysis on the fourth day of the disease, and after that continued irregularly. A puncture of the spleen was made, and cultures prepared with the material obtained. The *Micrococcus tetragenes* was identified in these cultures. Injections of these growths into guinea pigs killed the animals within a few days and the general lesions of sepsis were found on autopsy. Six days after the splenic puncture, the serum of the patient gave an agglutination reaction with cultures of the tetragenes in dilutions of one part to fifty.

2. **Babinski's Reflex.**—Ceraulo defends the phenomenon of Babinski against the recent attacks upon this diagnostic sign; Babinski's phenomenon, consisting in the dorsal flexion of the toes, particularly of the great toe, when the heel is hit with a handle of a mallet or when the external margin of the sole is stimulated. Its presence indicates some pathological condition, usually a lesion of the brain or spinal cord, and it is found normally only in the first months of life. The value of this phenomenon in diagnosis has been generally acknowledged; but, in 1899, Cohn and Giudiceandrea and more recently Audenino, of Turin, attempted to discredit the importance of this reflex and declared that they had met with it in a considerable proportion of healthy persons. The present author examined 101 individuals of both sexes, from 21 to 73 years of age, whose nervous system was perfectly normal, and found Babinski's reflex only in one case, in which there was a marked alcoholic intoxication. In 57 children born at term, of healthy mothers, and whose ages varied from four months to seven years, he found the reflex in 31 cases, all of which were in children under two years. Of twelve patients with simple nervous affections (hysteria, epilepsy, etc.) only one showed this reflex. Finally, in a series of twenty cases with lesions of the nervous system he found the phenomenon of Babinski to be constantly present in a well marked form. This series included thirteen cases of old hemiplegias due to central lesions; two cases of chronic myelitis, three cases of tabes dorsalis, one case of disseminated sclerosis, and one case of spastic paraplegia.

3. **Definition of the Heart Area by Means of Palpation.**—Bassi says that works on diagnosis do not pay any attention to the palpation of the heart, except at its apex, and pleads for a more extended application of this simple method for the delineation of what he calls the cardiac area of palpation. He submits two illustrations which show that this area of palpation is very closely parallel, but a trifle smaller, than the area of relative dulness on percussion. He begins the palpation of the heart by determining the position of the apex. In palpating the other points of the heart he applies the thumb of the left hand vertically, and after some practice he says that he is able to define the "area of palpation" very closely by simple touch.

ROUSSKY VRATCH.

May 15, 1904.

1. Fatigue in Writing and in Playing Musical Instruments (*Concluded*), By I. V. Zabloudoffski.
2. On the Use of Suprarenal Preparations in the Diseases of the Stomach and Intestines, By F. G. Ianovski.
3. A Case of Chronic Intussusception, By N. I. Klopotovski.
4. Syringomyelia (*Concluded*), By Khanutina.
5. On the Technics of Kjeldahl's Method of Nitrogen Determination, By A. F. Hegersdedt.

1. **Writers' and Pianists' Cramp.**—Zabloudoffski recommends the use of a special penholder for persons who are subject to writer's cramp. This penholder is provided with a support shaped something like an anchor, with the horizontal bar under the middle third of the penholder, and the shank between the second or third finger, while the base of the support was held in the palm of the hand. The position of the hand in using the penholder in this manner was simply in the form of the fist with the penholder gliding along the paper supported between the fingers and lying over the first phalanges and knuckles. In the worst cases of writer's cramp, in which the fingers could not be bent into a fist without pain, and in which the pen could not be dipped into the ink well without discomfort, the author suggests the use of a holder by means of which a pencil may be directed with ease. This consists of two wooden balls connected by a short rod, the larger of the balls is held in the left hand, the rod is directed horizontally and the smaller ball is held in the right hand, which leans upon the paper. Into an opening of this smaller ball a short pencil is fitted, and is held between the first and second fingers of the right hand, while the ball rests in the palm of this hand. The left hand directs the right by pushing upon the larger ball connected by means of the short rod with the remainder of the apparatus. The measures which are to be adopted in preventing fatigue during writing consist in attention to the position of the writer, the proper relation of his body to his arm, the selection of the proper writing materials, and finally in the more extensive use of stenography and typewriting. The means which the author recommends in the treatment of pianists' cramps are: "Less exaggerated value should be placed upon the technics of piano playing in the concert hall; a more humane consideration for the performer on the part of the composer, who must not always write for a musical 'overman;' a more careful adaptation of tasks to the powers of the player in teaching music, and especially to the length and width of the fingers and to the reach of the outspread hand."

May 22, 1904.

1. On the Poisonous Properties of the Secretion of the Skin Glands in Toads, By N. P. Kravkoff.
2. Cysts and Pseudocysts of the Pancreas. A Case of Traumatic Hæmorrhage Into the Cavity of the Lesser Omentum (*To be concluded*), By A. U. Dvouzhilny.
3. The Treatment of Diseases of the Lacrymal Canal by Electrolysis, By A. V. Lotine.
4. On the Formation of Sugar in the Isolated Liver During the Passage of Ringer-Locke's Fluid Through the Vessels of This Organ. Preliminary Communication, By K. S. Ivanoff.
5. A Case of Sarcoma of the Clavicle, By M. M. Kriukoff.

1. **A Poisonous Substance in the Skin of Toads.**—Kravloff found that the wart-like prominences on the skin of toads contain a poisonous principle. This substance is contained in the secretion of the skin glands of these animals, and over the temples they have large masses of these glands forming hillocks. The saliva of the toad does not contain any poisonous substance. A popular notion is that a toad, when caught in the hand, can squirt out its poison, but this is not so, although under the influence of compression and of muscular movements some of the secretion is pressed out of the skin-glands of this animal. Cases of poisoning with "toad poison" have been recorded in the Middle Ages. Ambroise Paré relates how some men were poisoned by wine in which they had steeped some leaves which had been gathered in a garden where numerous toads were crawling. This poisonous substance, when taken internally, gives rise first to signs of irritation,—burning and swelling of the mucous membranes. In the eye it causes acute conjunctivitis. An interesting fact noted by Vulpian is that while toad poison is very toxic for all other animals, it does not affect toads, even when given in very large doses.

Casali isolated an alkaloid-like substance from toad poison which he called bufidine (from bufa, a toad). Bufidine, like digitaline, gives a green color with pure hydrochloric acid. Fornara isolated from toad poison an extract which had all the properties of the poisonous secretion in increased degree, and called it "phrynin." The exact chemical nature of toad poison is, however, stilll unknown. The present author experimented with a series of toads from which he isolated phrynin and determined the action of this substance on various animals. Locally phrynin has an intense irritant effect followed by anæsthesia. Thus, the leg of a frog smeared with phrynin can be amputated painlessly after a few minutes. Weak watery solutions of phrynin produce local anæsthesia without any signs of irritation, when introduced subcutaneously, or into the eye. Digitaline possesses this property in a much weaker degree, but strophanthine and other substances of the digitaline group induce anæsthesia as readily as phrynin. The general toxic effects of phrynin are intense, and in dogs it produces a toxic action on the heart and vessels in doses of 0.00003 gramme per kilogramme. Its action on the heart is practically the same as that of digitaline, and it is possible that phrynin will find important therapeutic indications.

3. **Electrolysis in Diseases of the Lacrymal Canal.**—Lotine reports a number of cases of disease of the lacrymal passages in which he successfully employed electrolysis applied by electrolytic probes, of his own invention, which were insulated along the greater part of their length by a coating of the

same material as that used to cover elastic bougies. The particular portion of the probes thus insulated could thus remain in the canaliculus and the lacrymal sac, while the non-insulated part could occupy the lacrymal duct. The technics was as follows: After dilating the canals and finding the stricture, the insulated probe, connected with the negative pole, is introduced into the strictured portion of the lacrymal duct. Then the positive pole, wrapped in cotton moistened in salt solution, is held in the patient's hand or introduced into the corresponding cavity of the nose. The rheostatic resistance is gradually decreased for half a minute until the current measures from four to five milliampères. The probe is then moved along the strictured portion, and the electrolysis is continued for about five minutes as a rule. The size of the probe used at first should correspond to that of the ordinary sound which just passes the stricture. Later the size of the electric probe may be increased.

5. **Sarcoma of the Clavicle.**—Kriukoff reports a very rare localization of sarcoma, occurring in a girl, aged twelve years, who had noticed, about nine months previously, a small tumor over the right clavicle. On admission the tumor measured 28 by 32 centimetres in diameter, and 55 cm. in circumference, was very dense, and the skin was adherent and immovable over it. The tumor and the remainder of the clavicle were removed and the patient made a good recovery. The internal carotid had to be ligated, but this was not followed by any unfavorable results. A slight wound of the subclavian vein, inflicted accidentally during the operation, healed without any further trouble.

BOSTON MEDICAL AND SURGICAL JOURNAL.

July 21, 1904.

1. A Case of Moral Insanity with Repeated Homicides and Incendiarism and Late Development of Delusions, By HENRY R. STEDMAN.
2. The Ætiology and Modern Methods of Treatment of Chronic Urethritis, By CHARLES M. WHITNEY.

1. **Moral Insanity.**—Stedman places moral insanity among the insanities of degeneration. The term should be exclusively reserved to designate a congenital, primary, constitutional, and permanent mental condition affecting the moral nature and unassociated with evident intellectual impairment. The case reported is fresh in the minds of most newspaper readers: J. T., a trained nurse, was arrested, in 1901, on the charge of murdering one of her patients by poison. Subsequent investigation showed that the woman had committed in all about 20 homicides. She had also started four fires. Nearly all her victims were killed by morphine while under her professional care. J. T. was found guilty at her trial and sent to the State insane asylum for life. The author gives a detailed account of the woman's family and personal history and of the gradual development of her mental degeneration after her confinement to the asylum.

2. **Chronic Urethritis.**—Whitney considers a case of urethritis chronic when the discharge continues after from ten to twelve weeks of rational treatment. The treatment advocated is the one usually employed, that is: (1) Diagnosis of the part of the genitourinary tract involved. For this the author resorts to the four-glass method. (2) Irrigations, deep instillations, and local applications, through an endoscope when possible. (3) Mechanical emptying of the urethral follicles and glands of their pus-infected contents by over dilatation of the urethra and massage. (4) Massage of the prostate and seminal vesicles. Treatment as a whole is not very satisfactory. Many subjects refuse either to get well or to stay well after an apparent cure has been obtained.

MEDICAL RECORD.

July 23, 1904.

1. Notes on Some Uncommon Forms of Nervous Diseases, By L. PIERCE CLARK.
2. The Modern Tuberculosis Dispensary, By S. A. KNOPF.
3. Dietetics in Summer Diarrhœa, By BENJAMIN EDEL HELPRIN.
4. Clinical Notes on the Mammary Gland, with Report of Four Cases of Somewhat Unusual Interest, By THOMAS H. MANLEY.
5. Fallacies in Vital Statistics, By F. L. WACHENHEIM.
6. A Few Quotations from Shakespeare Showing His Acquaintance with Medical and Other Sciences, By J. W. WAINWRIGHT.

1. **Uncommon Forms of Nervous Disease.**—Clark reports in all five cases. We give them by title only. (1) Multiple Neuritis with Intact Reflexes. (2) Myoclonus. (3) Paradoxical Pseudohypertrophy in Infantile Cerebral Hemiplegia. (4) Facial Hemiatrophy. (5) Myasthenia Gravis. A discussion follows the report of each case.

2. **The Tuberculosis Dispensary.**—Knopf describes the plant and the method of running the recently established Clinic for Pulmonary Communicable Diseases of the Health Department of the City of New York. As this institution had only been in operation for a month and a half at the time the author's paper was written, it is as yet not possible to say how much good will be accomplished. From the thorough manner in which the work has been started much good may be anticipated. In the first month and a half 794 patients applied for treatment. The author promises that at some future date he will publish an account of the results that will then have been obtained.

4. **The Mammary Gland.**—Manley reports four cases of mammary gland affections: (1) Protracted Lactation of Twenty-four Years' Duration. The patient was married at seventeen and was delivered ten months later of a seven months' old child. She had two stillborn children subsequently. Apparently, the drain from the prolonged lactation starved the uterus of the nourishment requisite for the production of a full termed child. (2) Lacteal Fistula. (3) Adenofibroma of the Breast. The author, taking this case as a text, protests against removal of the entire breast in cases of nonmalignant new growths and in doubt-

ful cases. (4) Primary Scirrhus in the Axillary Nodes.

5. **Fallacies of Vital Statistics.**—Wachenheim's paper is devoted to showing how little vital statistics are to be relied upon. What the author thinks of the government tables may best be seen from the following quotation: "The basis of all vital statistics must be an accurate estimate of the total population. Unforunately, in the United States, the decennial enumeration is rarely made with anything approaching true correctness; repeatedly, as in 1870 and 1890, the government tables have been thoroughly vitiated by gross negligence on the one hand, and positive fraud on the other. The census of 1890 may, indeed, be justly regarded as a statistical calamity, the ambitious scope and gigantic scale of its vital reports giving a painfully misleading impression as to their real value; the intentional and unintentional errors of said enumeration have caused many of its tables of mortality to be just so much waste paper, a positive impediment to scientific progress."

MEDICAL NEWS.

July 23, 1904.

1. Some Surgical Aspects of Obstetrics. By William S. Stone.
2. Myelogenous Leucæmia with Disappearance on the Splenomegaly and the Myelocytes. By Charles E. Simon, and D. G. J. Campbell.
3. A Visit to Gheel, By Smith Ely Jelliffe.
4. Personal Experience in the Treatment of Typhoid Fever, By Carter S. Cole.
5. Extrauterine Pregnancy—Some Observations in a Case Ruptured by Examination, By W. L. Wallace.
6. A New Brace for the Shoulder Joint, By Leonard W. Ely.
7. The Early Diagnosis of Pott's Disease. By Frank P. Vale.

1. **Obstetrics.**—Stone considers almost wholly lacerations of the cervix and their treatment. Some lacerations of the cervix cannot be avoided. As a rule these cases do not give much trouble, and heal readily, provided infection does not take place. Severe injuries, those that most often require either immediate or subsequent attention, are very often produced by: (1) Premature rupture of the membranes. (2) Application of the forceps and all operations requiring rapid dilatation of the cervix. (3) Meddlesome attempts to hasten the dilatation manually in normal cases. The author is a strong advocate of the immediate repair of serious cervical lacerations. He answers the arguments of the advocates of delay and holds that the necessary procedures for a primary repair are practically free from contraindications.

2. **Myelogenous Leucæmia.** — Simon and Campbell assert that there are only four cases recorded of myelogenous leucæmia, in which there has been a disappearance of the splenic tumor as well as of the myelocytes. These are the cases of McCrae, Senn, Plehn, and Kohn. The three cases reported by Brown, Bryant, and Crane as cured have been observed so recently that they must for the present be excluded. The authors, after reviewing all these cases, assert that it is far from being established that either arsenic or the x ray exerts a positive curative action. In the case reported by the authors the patient's condition has remained good for one year.

4. **Typhoid Fever.**—Cole summarizes his beliefs regarding the treatment of typhoid fever as follows: (1) Fever is a necessary part of the disease and varies according to the week in which it occurs. (2) We cannot change the type, although we may control the fever. (3) The use of coal tar products for the reduction of temperature is seldom, if ever, desirable, but the use of water externally and internally is a necessary part of the treatment of the disease. (4) Nutrition must be liquid and must be adapted to the individual case. (5) Medication plays a very small part in the management of the disease, and is only used to meet special indications.

5. **Extrauterine Pregnancy.**—Wallace reports three cases of extrauterine pregnancy; in one, rupture occurred as a consequence of examination. The author lays much stress on the value of intravenous saline injections. These injections should be of moderate amount, or the patient may be literally drowned by them. The author's practice is to give about 1,000 cubic centimetres of saline injection directly into the veins, and to leave about a pint of the solution in the abdomen and inject one quart into the rectum.

7. **Pott's Disease.**—Vale believes that Pott's disease, in its early stages, is often overlooked. He strongly urges that more frequent use be made of the x ray for diagnostic purposes.

AMERICAN MEDICINE.

July 23, 1904.

1. The Diagnosis and Treatment of Hæmorrhoids, By J. Coles Brick.
2. Œdema, By S. J. Meltzer.
3. Metabolic Changes Caused by External Hæmorrhage, By William J. Gies.
4. Two Cases of Vincent's Angina, and One of Noma, in Which the Organisms Characteristic of the Former Affection Were Found, By Randle C. Rosenberger.
5. Primary Ulceration of the Tonsil. Together with Some Remarks on Tonsillar Ulceration in General. By Thomas J. Harris.
6. Brain Injury, By Henry S. Wieder.

1. **Hæmorrhoids.**—Brick writes more or less of a textbook article on piles and their treatment. The different methods of treating hæmorrhoids are discussed in sequence and the author's preferences are noted. There are three methods of radical treatment worthy of note: (1) Injection with some preparation of carbolic acid; (2) ligation; and (3) the clamp and cautery. The author prefers the last method. After completing this operation in the usual way he is in the habit of dilating the rectum and tearing apart the ribbons of cauterized tissue. If, when this is done, an artery spurts, it is caught and ligated.

3. **Metabolic Changes Due to Hæmorrhage.**—Gies records a series of experiments performed on dogs, for the purpose of determining what in-

fluence is exerted on proteid metabolism by hæmorrhage. The experiments seem to warrant the following conclusions: (1) The organism contains at all times more blood than is normally needed. (2) After hæmorrhage there is a slight and temporary increase in nitrogen elimination. (3) The catabolic effects of hæmorrhage are cumulative, as was shown by successive bleedings. (4) Probably for the first few hours after a hæmorrhage has occurred, there is subnormal metabolism. This is followed by a greatly stimulated metabolism. The author's work has brought to light many other facts, but lack of space forbids their enumeration.

4. **Vincent's Angina.**—Rosenberger has no doubt that Vincent's angina is a distinct, clinical, and pathologic entity, due to an infection by the symbiotic fusiform bacillus and spirillum of Vincent. The disease is probably more frequent than is supposed, but it is often overlooked, since the causative organisms cannot be cultivated and can only be recognized in smears. Clinically the lesions resemble those of mild diphtheria or the mucous patch of syphilis.

5. **Primary Ulcerations of the Tonsils.**—Harris reviews in detail the various ulcerative lesions that may be observed affecting the tonsils. The author lays stress on the following points: (1) The great value of a bacteriological examination in all membranous or ulcerative conditions of the tonsil. (2) The occurrence of several primary forms of ulceration of the tonsil, bacterial in origin, which can be, and doubtless have been, mistaken for the graver conditions due to diphtheria or syphilis. (3) The almost irreparable harm which may result to the patient from a false diagnosis of the latter disease.

6. **Brain Injury.**—Wieder reports two cases of brain injury: (1) Loss of one quarter of the brain substance with consciousness and ability to talk retained until death. The patient's head was injured on the right side, and the loss of brain substance involved the right hemisphere and part of the frontal lobe on the injured side. (2) Fracture of the skull with porencephalia. In this case it is probable that the accident which produced the fractured skull had nothing to do with the condition of porencephalus. It is likely that this latter condition had been in existence for some time and was accidentally discovered when the skull was trephined for the fracture.

LANCET.

July 9, 1904.

1. Cases of Appendicitis, By A. A. Bowlby.
2. Deaths in Childbed (Milroy Lectures, III), By W. Williams.
3. On Diabetic Neuritis (*Concluded*), By F. W. Pavy.
4. Pathological Suggestions: (1) The Preparation of Microscopic Slides for Blood Films; (2) the Possible Application of Formalin Gelatin as an Antiseptic and Disinfectant Protective Skin; and a Trypanosome-like Organism Found in Association with Some Chronic Pathological Affections of the Mouth, By A. E. Wright.
5. The Treatment of Congenital Equino-Varus During Early Infancy, By E. L. Evans.
6. An Examination of Apparatus Proposed for the Quantitative Administration of Chloroform, By A. D. Waller, and J. H. Wells.
7. Note on the Concentration of Chloroform Vapor in Air Drawn from Beneath a Skinner's Mask, By W. L. Symes.
8. The Medicinal Peroxides Hopogan and Ektogan. By M. Frenkel.
9. On the Frequency of Aseptic Necrobiosis or Red Degeneration of Fibromyomata of the Uterus. With a Report of Two Cases, By F. E. Taylor.
10. Adenomyoma of the Uterus, By S. J. M. Cameron, and A. Leitch.

1. **Appendicitis.**—Bowlby reports several illustrative cases of appendicitis and the lessons to be drawn from the same. Apparently causeless attacks of pain coming on at night are very suggestive of appendicitis. Again the pain may be very general and indefinite; in a very large number of cases there is no pain in the iliac fossa and tenderness may even be absent. The explanation of the attacks of pain, passing away so suddenly, is that there is a distention of the appendix by secretion, and that when this gets out after having been blocked up, the whole of the symptoms rapidly subside. Fæcal contents, kinking, or stricture will be found to be quite sufficient to account for the blocking up of the appendix. Whatever is the pathology of catarrh of the intestine in general, is the pathology of catarrh of the appendix. If an adult has had a very violent and prolonged attack of such severity as to threaten his life, the probability is that there may be no necessity to operate for the removal of the appendix, because it is very likely to have been destroyed. In some such cases there is a definite history of the passage of pus by the bowel. It is the frequently recurring attacks, often of slight severity, which are liable to go on recurring and to get worse. In many cases of acute appendicitis there is pain on urination; it will be found in these cases that the inflammation has spread to the pelvis. There may even be a pelvic abscess.

2. **Deaths in Childbed.**—Williams, in the third of the Milroy lectures, discusses the various precautionary measures adopted in general obstetrical practice, and considers in full the Midwives Act, which became law in England and Wales in 1902. Its chief objects are to secure the better training of midwives and to regulate their practice.

4. **Pathological Suggestions.**—Wright states that the difficulty often met with in making blood smears on glass slides is due, not to the presence of grease, but to the slide being too smooth. The finely roughened surface which is essential for the preparation of perfect films may be obtained by rubbing the surface of the slide with the finest grade of emery paper. He calls attention to the fact that solutions of gelatin set into a firm insoluble jelly on the addition of commercial formaldehyde. Such a preparation, immediately

after mixture, can be used with most excellent results as an application to a moist surface. Painted on, it forms a tenacious, elastic, and insoluble skin, admirably adapted to the arrest of hæmorrhagic oozing. It is also antiseptic and rapidly devitalizes pyogenic microorganisms. Pain is avoided by using first a film of simple gelatin, adding the formaldehyde gelatin when the former has dried. He also describes a trypanosomalike organism found in association with some chronic pathological affections of the mouth—pyorrhœa alveolaris, etc.

6. **Chloroform Administration.**—Waller and Wells discuss the various methods of quantitative administration of chloroform. They conclude: 1. Chloroform is not an uncertain agent. The effects it produces are proportional to the mass in which it acts. 2. For ordinary anæsthesia of the human subject the chloroform inspired should be between one and two per cent. 3. Death by chloroform is in the great majority of cases death by simple overdose. 4. In the three forms of apparatus professing to deliver graduated amounts of chloroform the delivery under laboratory conditions is practically what it professes to be. The choice of apparatus is a matter of clinical convenience.

BRITISH MEDICAL JOURNAL.

July 9, 1904.

1. Remarks on the Prevention of Ventral Hernia as a Sequel to Abdominal Section, By E. S. Bishop.
2. A Clinical Demonstration on the Radical Cure of Hernia, By M. Collier.
3. Traumatism and Hernia, By W. Sheen.
4. The Surgical Anatomy of the Normal and Enlarged Prostate, and the Operation of Suprapubic Prostatectomy, By J. W. T. Walker.
5. Chloride of Ethyl and a Method of Administering It, By N. Porritt.
6. A Modification of Hammond's Splint for the Treatment of Certain Fractures of the Mandible, By J. Crombie.

1. **Postoperative Hernia.**—Bishop discusses the occurrence of ventral hernia following abdominal section, and states that the action of the recti muscles has little to do with it, the really important structure being the so called deep fascia of the abdomen. This is really the broad flat combined tendon of the external and internal oblique and transversalis muscles. When it is divided each set of muscles pulls its segment of tendon further and further away from its fellow of the opposite side. So that, after abdominal section, the essential thing is to unite the tendons of the oblique and transversalis muscles in such a complete manner as once more to restore their mutual antagonism and to keep them firmly united long enough for firm organic union to take place between them. The only tissues as to the union of which the surgeon need interfere are the peritonæum, the fascia, and the skin. The union of the skin and peritonæum is simple, but in the case of the tendon some suture material must be used which shall be strong enough to resist the combined pull of the muscles, and also any extraordinary strain, such as vomiting, etc. And this material must remain strong and firm for a month or six weeks—and yet be absorbed in the end. The author describes several methods of accomplishing this end—chromicized catgut, wire, removable silk sutures, etc.

2, 3. **Hernia.**—Collier states that there are seven classes of cases of inguinal hernia where a true cannot be relied on, and an operation is indicated. These are the cases in which the hernia is: (1) irreducible; (2) strangulated; (3) not controlled by a truss; (4) associated with ectopia testis; (5) the cause of unfitness for the public service; (6) in incompetent and ignorant people; and (7) very large, hampering the movements of the patients. and seriously threatening personal comfort. The operation for the radical cure of hernia is perfectly safe if done by a skilled, experienced surgeon. In the hands of the unskilled operator the testis may be seriously injured, atrophy and sloughing sometimes occurring. In twenty-five per cent. of the cases the hernia returns and requires a second operation or the assistance of a truss before eight years. A truss should be recommended in preference to an operation up to the fourth year of age, and in some cases longer. Favorable cases with small sacs, sound tissues, and well formed abdominal walls, if allowed to rest for at least two or three months after operation, will not require a truss. But where other conditions obtain, a broad flat truss should be worn after operation. The same applies to all patients, who after operation will have to perform heavy and arduous work. Stress is laid on the importance of the avoidance of straining at stool after the operation. The act of defecation should be performed with the extremities and trunk all flexed at an acute angle—*feræ naturæ.* The civilized position adopted by reason of the modern watercloset is responsible for a large percentage of ruptures. A perfect ligature for the operation has yet to be found: kangaroo tendon and Chinese silk are most in use.

Sheen discusses the causal relation of traumatism to hernia, and states that certain conditions must be fulfilled before the trauma can be considered as the cause of the hernia. These are: (1) The trauma must be of a certain character, either a sudden general muscular contraction compressing the abdominal contents, as in heavy lifting or resisting a blow, or possibly a general abdominal squeezing as in a buffer injury. A localized blow on one part of the abdomen (e. g., from the end of a stick) cannot cause a hernia. 2. The hernia must be quite small at first. 3. It must appear immediately after the accident. 4. The development of the hernia must be accompanied by acute pain and tenderness at the site of the hernia and by the formation there of a small tender lump. 5. The symptoms must be so acute as to compel the patient at once to leave his work and seek medical aid. He sums up thus: Granting the existence of a preformed sac, oblique inguinal hernia may occur suddenly as the result of a single trauma, such trauma being usually an abdominal "strain." It is doubtful whether the preformed sac is congenital or acquired.

AMERICAN MEDICAL ASSOCIATION.

Fifty-fifth Annual Session, Atlantic City, June 7, 8, 9, and 10, 1904.

SECTION ON NERVOUS AND MENTAL DISEASES.

Third Day, Morning Session, June 9th.

The meeting was called to order by the temporary chairman, Dr. Howell T. Pershing, of Denver, Col.

A Dynamometer for Measuring Perspiration.—This paper was read by Dr. H. E. Wetherill, of Philadelphia, in which he described in some detail the electrical, chemical, hydroscopic, and volumetric methods of measuring perspiration, and commented on the value of such work in exophthalmos, diabetes insipidus, uræmia, fevers, etc., stating that he believed the diagnostic value would advance as the numerical statistics increased. He then exhibited several charts illustrating the different methods and showed the completed instrument.

Minor or Borderline Psychoses was the subject of a paper read by Dr. Frank P. Norbury, of Jacksonville, Ill., in which, after giving a report of several cases, he considered in detail the symptoms, such as imperative conceptions, obsessions, hallucinations, illusions, delusions, paramnesia, amnesia, perversion of sexual feelings, and emotional changes. The treatment should be by isolation, rest, and careful symptomatic treatment, especially during the period of evolution of the nervous symptoms; the convalescence should be carefully guarded and a prolonged stay under the care of the physician was imperative. He concluded by stating that: 1. The disease was rare in acute alcoholism, but might appear in adolescents of neurotic type; 2, it was more frequent after adolescence and up to forty or fifty years of age; 3, it might occur in both continuous drinkers and periodic delinquents; 4, the prognosis was variable, depending on inherited frailties and moral developments; 5, early treatment was advisable and was successful in a majority of cases.

Psychic Force.—This paper was read by Dr. Brooks F. Beebe, of Cincinnati, O. The author considered at considerable length, the nature, source, development, and mode of expenditure thereof, referring particularly to the influence of one mind upon another and of the mind upon the body. Following this he remarked upon the various phases of its use in therapeutics, stating that he believed it might be made to play a great rôle in the healing art. In conclusion, he urged that the physicians acquire greater knowledge of this subject and make a wider use thereof, both in their treatment of disease and their influence on mankind.

Dr. Arthur Conklin Brush, of Brooklyn, N. Y., referred to the importance of the mental influence of the physician over the patient, especially in hysteria, in which he felt that it was imperative that the will of the physician should prevail.

Dr. Howell T. Pershing, of Denver, Col., felt that the mind should be studied in relation to the bodily condition of the patient.

This paper was further discussed by Dr. W. J. Herdman, of Ann Arbor, Mich.; Dr. James H. McBride, of Pasadena, Cal.; Dr. Albert E. Sterne, of Indianapolis, Ind.; Dr. F. W. Langdon, of Cincinnati, Ohio; Dr. Richard Dewey, of Wauwatosa, Wis.; Dr. Angell, of Rochester, N. Y.; Dr. Searcy, of Alabama; Dr. David I. Wolfstein, of Cincinnati, Ohio; Dr. Theodore Diller, of Pittsburgh, Pa., and closed by Dr. Beebe.

Have Drug Habits a Pathological Basis?—This paper was read by Dr. Albert E. Sterne, of Indianapolis, Ind., who considered the subject under three heads: 1, Hereditary; 2, acquired; 3, effect upon the system or true pathology. The author went into the development of the habit, discussing particularly the hereditary and acquired influences, stating that frequently the physician, on account of his knowledge of drugs, was the easiest victim. He recommended that measures be taken to prevent the begetting of offspring by such habituees, and drew a comparison between the pathological changes in chronic alcoholism and other drug habits, referring to the fact that the habitual user of alcohol showed more effect than the person using it only periodically.

Dr. Pressey, of Toledo, Ohio, felt that the drug habit was due to the situation of the patient, his vitality, nerve force, etc., and that the factor of heredity *per se* played but a small rôle.

Dr. Richard Dewey, of Wauwatosa, Wis., remarked as to the possibility of the chemical union of the alcohol with the nerve cells, and referred to an article published by a Russian writer a few years ago, who professed to demonstrate the chemical union of morphine with the nerve cells.

Dr. S. M. Crowell, of Charlotte, N. C., remarked on the meagre knowledge of the profession on the pathology of alcoholism and the various drug habits, which he believes to be widely different one from another, and felt that there was a wide field for research in this direction.

Dr. Sterne, in closing, referred to the pathology of the condition and the possibility of the chemical union of the nerve cells with alcohol.

Upon motion of Dr. Smith Ely Jeliffe, of New York, which was unanimously carried, the chairman was instructed to appoint a committee to investigate systematically the pathological effects of the drug habits. In accordance therewith, the chairman later appointed the following:

Dr. Smith Ely Jeliffe, of New York, N. Y.; Dr. Brooks F. Beebe, and Dr. Albert E. Sterne, of Cincinnati, Ohio.

A Case of Locomotor Ataxia with Tremor Resembling Paralysis Agitans.—Dr. John H. W. Rhein, of Philadelphia, reported the case of a patient who had developed syphilis thirteen years before he came under his care, at which time he had a tremor resembling that of paralysis agitans accompanied by the usual symptoms of locomotor ataxia, but lacking the other characteristic symptoms of Parkinson's disease. At the autopsy the characteristic pathological lesion of locomotor ataxia with signs of a general arteriosclerosis were revealed; the lateral columns when stained with carmine being unaffected.

Should Inebriates Be Punished by Death for Crime?—Dr. T. D. Crothers, of Hartford, Conn., referred to the difficulties of physicians as witnesses in such cases. He believed that the alcoholism produced a poisoning of the entire body and that many of the crimes were committed in an automatic state. He believed that the inebriate should not be punished for crime. He stated that out of 100 inebriates executed last year over 70 per cent. had previously been convicted and punished for minor crimes.

Dr. Brooks Beebe, of Cincinnati, Ohio, felt that there was no doubt in the minds of the medical profession as to the irresponsibility of the inebriate for crime, and believed that punishments should not be inflicted in such cases.

Dr. S. M. Crowell, of Charlotte, N. C., referred to the value of an institution for treatment and care of the chronic inebriates rather than the workhouse, and stated that a bill was in course of preparation to be presented to the legislature for the establishment of such an institution in Charlotte.

Dr. Albert E. Sterne, of Indianapolis, Ind., felt that the fact that the inebriate was willing to be repeatedly committed for drunkenness was sufficient evidence of his mental incapacity, and referred to the fact that a movement was on foot to establish an institution for the treatment of inebriates in Ohio.

Third Day, Afternoon Session, June 9th.

The meeting was called to order at 2.15 p. m. by the temporary chairman, Dr. Howell T. Pershing, of Denver, Col.

Some Interesting Autopsy Findings in Epilepsy.—This paper, by Dr. B. Onuf, of Sonyea, N. Y., consisted of a report of the autopsy findings in fifteen patients who had died at the Craig Colony. He remarked on the frequent difficulty in obtaining pathological findings in these cases, and commented on the fact that this had been somewhat remedied in New York by the passage of a law permitting an autopsy to be made, provided the relatives were notified. He stated that he had secured good results in the preservation of the bodies by means of an injection of 12 per cent. solution of formalin. He generally took a photograph of the brain before and after stripping the meninges, several of which photographs he exhibited. He stated that he believed the most information would be secured from the study of the nerve fibrils. He then exhibited a chart, showing in detail the results of the autopsies, giving in each case the age at onset and duration of epilepsy, the approximate number of attacks during life, distinguishing *petit mal* and *grand mal;* heart lesions (there being only one case which did not show some valvular lesion); gross lesions of the cerebral hemispheres, optic thalamus, axis and cerebellum. Nine out of the fifteen subjects died of pneumonia. In conclusion the author urged careful examination of the auditory and ocular conditions as well as careful physical examination.

Dr. W. G. Spiller, of Philadelphia, did not deem it advisable to strip off the pia before studying the brain in order to photograph the same, as he believed this also should be carefully studied, and he also believed that the clinical and aural symptoms should receive careful attention. He remarked that this same method of hardening had recently been used by an ophthalmologist with good success.

Dr. B. Onuf, in closing, remarked that the pia when removed from the brain was marked and afterwards carefully studied, and that most of the cases reported were of advanced epilepsy with marked mental changes.

A Large Tumor of the Frontal Lobe.—This paper, by Dr. Philip King Brown, of San Francisco, and Dr. W. W. Keen, of Philadelphia, was read by Dr. Keen. It consisted of the report of the case of a young lady who, in March, 1903, had bilious attacks followed by paralysis of the left, and later of the right, external rectus muscles; but there was no change in sensation. In June or earlier there developed a complete bilateral anosmia, and by the middle of July a progressive loss of vision and mental dullness, progressive ophthalmoplegia and beginning left exophthalmos. Mercury and potassium iodide were administered with no effect, and there developed tenderness and pain of the left forehead and temple, followed by complete blindness. The diagnosis of a tumor of the left frontal lobe was made; and an operation by means of a large osteoplastic flap of the frontal region was performed on August 5th. At this time the tumor, which was of the sarcomatous variety, and which had perforated the skull at several points and broken into the frontal sinus and ethmoidal cells was found to be so large that its removal was impossible and only a portion was removed to diminish the pressure. The patient recovered from the operation, but local infection through the nose took place, followed seven weeks later by coma and death.

A Brain Tumor With Progressive Blindness as Its Most Prominent Feature, With Microscopic Report.—This paper, by Dr. W. C. Kendig and Dr. David I. Wolfstein, of Cincinnati, Ohio, was read by Dr. Wolfstein, the case being that of a traveling salesman, aged fifty-eight years, single, giving a history of syphilis and alcoholism. The diagnosis of possible paresis had been made, but the autopsy proved it to be one of brain tumor. Following this was given a full pathological report of the condition of the brain.

Dr. Theodore Diller, of Pittsburgh, reported a case of brain tumor in which the bone was eroded and there was protrusion thereof; also a case operated on by Dr. McKenna, in which the bone was thickened and there was the same protrusion. He also referred to the fact that Sir Victor Horsley performed operations of this character without the use of sutures in the dura mater.

Dr. Charles K. Mills, of Philadelphia, referred to the fact brain tumors of varying density and size might occur without producing headache, and that even those of large size might occur without producing any of the classical symptoms, or only one, such as optic neuritis or optic atrophy. He then commented on the diagnosis between brain tumors and other similar conditions, and in conclusion urged early operation, believing that, when the diagnosis was in doubt, an exploratory operation was justifiable.

Dr. Albert E. Sterne, of Indianapolis, Ind., referred to the case of a station master who suddenly complained of pain in the left frontal region, accompanied by a delusion that he had made mistakes in his work and was to be arrested. He went south on a vacation, during which time he grew worse, and on his return was admitted to the sanitarium and operation was planned for the next day. Before this time, however, he had two convulsive seizures, in the last of which he died; the autopsy, which was reported in detail, showed infiltrating tumor of the brain.

Dr. F. W. Langdon, of Cincinnati, reported in detail the clinical history of the case referred to in Dr. Wolfstein's paper, including the ocular and clinical symptoms for a number of years previous to his death.

Dr. F. X. Dercum, of Philadelphia, referred to two cases, one of which was a sarcoma, in which had been observed a little pain over the occiput, but no other headache.

Dr. W. G. Spiller, of Philadelphia, referred to the frequent difficulty of early diagnosis, and reported several cases, among them being one of tumor over the pons, extending down into the spinal cord, and another in which there was thickening of the bone over the tumor, due to infiltration of the tumor.

Dr. B. Onuf, of Sonyea, N. Y., referred to the cases of optic neuritis in which accurate localization of the tumor could not be made, and raised the question as to whether it would be advisable to wait until a certain diagnosis could be made or to remove the pressure by operation at once.

Dr. Charles K. Mills, felt that as a rule it would be better to do the operation at once than to wait.

Dr. David I. Wolfstein, in closing, stated that he believed the optic neuritis in the case reported by himself and Dr. Kendig was probably due to pressure on the optic nerve.

Dr. W. W. Keen, in closing, stated that while it prolonged the operation a little to insert sutures, yet it was only for a few minutes, and he believed it was advisable to do so, in order to prevent adhesions. He again urged the necessity for early operation, which also applied to those cases of optic neuritis in which the tumor was not located, and cited cases in which the symptoms, such as headache, had been improved by the opening of the skull, although the tumor was not removed.

Hysterical Delirium; Report of Four Cases.—This paper was read by Dr. Theodore Diller, of Pittsburgh, Pa. The first of these cases was in an unmarried girl. twenty-one years of age, admitted to the hospital in a condition of mutism, who several weeks before had been jilted by her lover; she developed a temperature of 105° F.; which lasted for four weeks, and was followed by a condition of delirium. When she left the hospital she stated she had no memory whatever of what had occurred.

The second case was that of a young Russian girl who, on coming to the city expecting to marry her lover, and finding the engagement was broken off, developed delirium followed by typhoid fever. The author believed that the depression had rendered her system especially susceptible to the typhoid germ.

The third case was of a young woman, aged twenty-nine years, who, after several years of an unhappy married life, during which time she had suffered from persistent headaches and neurasthenia, for which she took a semirest cure and was doing apparently well, fell into a state of delusion, from which, however, she afterward entirely recovered.

The other case was that of a woman, aged fifty, who had four fissures of the anus extending through the mucous membrane which, under treatment, improved. Some time after this she developed a similar fissure which did not improve, and she became quite delirious and subject to screaming attacks. The author remarked that insanity as an expression of hysteria was apt to pass unrecognized as such, when the patient was seen by two sets of observers—those outside and those inside of the asylum, as neither saw the case in its entirety.

Dr. Howell T. Pershing, of Denver, Col., reported the case of a young school girl who first became unduly anxious about her school work, followed by talking nonsensically, afterwards becoming delirious, and continuing in this state ten or twelve weeks, after which she made a full recovery, and had very little recollection of what had occurred.

Dr. F. X. Dercum, of Philadelphia, stated that cases of hysterical delirium were usually of short duration, and he felt that the rise of temperature in one of Dr. Diller's cases rather indicated an infection, and that the convulsion in another might be from an epileptic attack.

Dr. Diller referred to the fact that the convulsions in one of these cases had occurred for the first time in the patient's life immediately preceding the delirium, which he did not view as an indication of epilepsy.

The Relation of States of Apprehension to Cardiac Disease.—This paper was read by Dr. W. Rush Dunton, Jr., of Baltimore, Md., who stated that he had studied twenty-five women of the most recent admissions to the Shepherd Hospital. Of these five showed apprehension to a marked degree, three of whom had cardiac lesions; and of the remaining cases five had more marked cardiac lesions, but had never shown any sign of apprehension. Out of twenty cases examined at the Johns Hopkins Hospital, eleven patients showed apprehension, in three of whom there were various heart lesions and dyspnœa.

Officers of the Section for the ensuing year were elected as follows: Chairman, Dr. James H. McBride, of Pasadena, Cal.; secretary. Dr. David I. Wolfstein, of Cincinnati, Ohio; delegate to house of delegates, Dr. F. W. Langdon, of Cincinnati, Ohio.

The section then adjourned.

New Hospital for Chester, S. C.—At a meeting of citizens of the town on June 30th the Chester Hospital Association was organized for the purpose of founding and maintaining a charity bed in the Magdalene Hospital, opened up here in March by Dr. S. W. Pryor, who has made a generous proposition in this good work. The Reverend J. S. Moffatt was elected president, the Reverend Charles R. Hyde vice-president, and W. H. Hardin secretary and treasurer. An encouraging sum was subscribed by those in attendance to inaugurate the work.

Letters to the Editor.

CHICAGO, ILL., *July* 8, 1904.

To the Editor,

Sir: We have our prominent hospitals, whose training schools graduate nurses of the highest culture in their professional vocation. But here, as in New York and Philadelphia, we find that hospitals actually exist which "turn loose" female nurses who are as unfit to properly and scientifically nurse a sick human being as an infant is unfit for the task of constructing a twenty story skyscraper.

These hospitals, and there are many, are truly to be found in nearly every large city in the country. Their staff usually is composed of men of great learning and intelligence, yet these men are, on the whole, absolutely distinct from the business management of the institution. It is undoubtedly true that the institution uses them as a cloak for its nefarious intrigues, a hidden fact to these men. Would that I could tell the names of these institutions, but, lest one incite enmity, I must desist.

In these grades of hospitals, it is true that the interne demonstrates what he knows in anatomy and physiology. All things being equal, I dare say that if a man of years of experience were put in place of the internes, the nurses would naturally comprehend more than they do under the tuition of the interne.

And, furthermore, as for nurses doing menial work around the hospitals, that is a fact easily to be observed by any one on a tour of inspection. Such circumstances have actually been observed as a nurse scrubbing or mopping the floor one minute and the next handling the sterilized instruments or materials.

As to the expense and money connected with the supply of clothes, etc., the writer thinks it unnecessary to discuss them; and, lastly, there can be no other expression more fitting than "graft" when Dr. Lydston mentions the fact that undergraduates are sent out to care for patients, and the fee for nursing the patient is transferred to the institution's coffers.

And this is no hidden fact, for there are hospitals here and elsewhere that advertise the statement directly or indirectly that undergraduates can be secured by patients at an expense of twelve to fifteen dollars a week. R. L. LARSEN.

NURSES' TRAINING SCHOOLS.

CHARLESTON, S. C., *July* 16, 1904.

To the Editor,

Sir: I read with interest Dr. G. Frank Lydston's "signed editorial" in reference to our nurses' training schools, and thought that his criticisms were eminently correct. I am, however, disappointed in what he says in a letter to you, and from which you quote in the editorial on Our Nurses' Training Schools in the issue of your *Journal* of July 9th. Dr. Lydston says: "It would not be fair nor gracious for me to mention any institution specifically, but I do not hesitate to say that certain training schools are using inexperienced undergraduate nurses in private nursing in the furtherance of hospital 'graft.' I am glad to know that New York and Philadelphia are so free from the evils I have attacked." It seems to me that it is the duty of every physician, not only to expose, but to publicly denounce, any training school that is not properly and faithfully training its pupils, who must sooner or later be placed in positions which are only less responsible than those of the physicians themselves. General charges accomplish nothing, and sentiment and gracious feelings have no place in such cases, for those who are working "in the furtherance of hospital graft" deserve no consideration when they themselves are utterly careless of the consequences of their miserable and contemptible greed for money.

Whether two or three years are sufficient time in which to prepare a nurse for her work is a matter about which there is probably a considerable difference of opinion. I am inclined to think that a woman who has a good common school education (can write and speak correctly) and average mental capacity will, with other requisites (love and interest for her work), make a competent nurse after two years of careful and conscientious training. I agree with you that in some schools too much time is spent in attempting to teach them subjects which are not necessary for the proper performance of their work. This must displace important practical work and, perhaps, have a tendency to make them wiser in their own conceit and inclined to criticise the physicians under whom they may serve. There must be some drudgery in this work, and, as there is a right and wrong way to do even this, they should make up their minds to take what comes, in order that they may know every detail. We cannot do without the trained nurse, but let us see to it that she is a proper person to receive training, and that she is trained by conscientious and qualified teachers who value not only their own reputations, but those of the pupils whom they may send forth to practise this important and honorable calling. CHARLES W. KOLLOCK.

Book Notices.

Röntgen Ray Diagnosis and Therapy. By CARL BECK, M. D., Professor of Surgery in the New York Postgraduate Medical School and Hospital, etc. With 322 Illustrations in the Text. New York and London: D. Appleton & Co., 1904.

Dr. Beck has for several years been known to the medical profession in this country as doing excellent skiagraphic work. His present book contains a remarkably good collection of x ray pictures of fractures, dislocations, tumors, and deformities, together with useful directions for taking such pictures and a more complete discussion of the surgical aspect of the subject than we have seen in any other x ray book.

The book contains hardly anything upon dental skiagraphy, and the subject of x ray technics, construction, and manipulation of the apparatus, is but briefly considered. There are paragraphs upon radium and upon Finsen therapy. The chapters on Röntgen therapy are excellent, and the methods and results are accurately described. Possibly the author is a little oversanguine about x ray treatment of hypertrichosis, as the final results in many such cases are disappointing.

We should regard the book as useful to the man who has a first class x ray outfit and knows how to use it, and also to the general physician and surgeon who does not care to use the x ray himself and who will be aided in the diagnosis and treatment of many cases, especially of fractures, and in the interpretation of radiographs which he may cause to be taken in his cases. Some of the most recently devised accessory apparatus is described and illustrated, among them the compressive cylinder of Albers Schoenberg, the orthodiagraph of Hirschmann and others, and the author's osteoscope. The book terminates with a bibliography of the Röntgen ray.

Beiträge zur Klinik der Tuberkulose. Unter Mitwirkung der Herren Dozent Dr. Arnsperger, Professor Dr. Bettmann, Hofrat Professor Dr. Fleiner, Dozent Dr. Gaupp, Professor Dr. Hammer, Dozent Dr. Hegener, Professor Dr. V. Hippel, Dozent Dr. Jacoby, Professor Dr. Jordan, Professor Dr. Jurasz, Professor Dr. Magnus, Dozent Dr. Marschall, Dozent Dr. Nehrkorn, Professor Dr. Petersen, Professor Dr. Schottlander, Professor Dr. Schwalbe, Dozent Dr. Simon, Dozent Dr. Soetbeer, Professor Dr. Starck, Dozent Dr. Volker, Profesor Dr. Vulpius. Herausgegeben von Dr. Ludolph Brauer, Professor an der Universität Heidelberg. Band II. Heft 3: Vargas-Suarez, Dr. J., Ueber Unsprung und Bedeutung der in Pleura-Ergüssen vorkommenden Zellen. Mit 1 Tafel. Koppen, Dr. A., Ueber die probatorische Tuberkulininjektion. Kohler, Dr. F., Zur Tuberkulindiagnostik nebst Bemerkungen, zu Schules Aufsatz, "über die probatorische Tuberkulininjektion." Servaes, Dr. C., Bemerkungen über die Gefährlichkeit der probatorischen Tuberkulinimpifung. Schule, Professor Dr., Entgegnung auf vorstehende Abhandlungen. Würzburg: A. Stuber, 1904. Price, M. 2.50.

The United States has at this moment no periodical devoted exclusively to the subject of tuberculous diseases. (The one which was published by Dr. Karl von Ruck, in Asheville, N. C., has ceased to exist.) For a number of years Germany, France, England, Belgium, and some of the Latin American countries have had periodicals devoted exclusively to the subject of tuberculosis, and particularly to sanatorium matters. To devote a periodical entirely to the clinical aspect of tuberculosis was a relatively new departure.

These *Beiträge* seem to have met with remarkable success. The reviewer has learned to appreciate the value of the articles. The number under review contains an article on the cells of pleural effusions, by Vargas-Suárez, and articles by Köppen, Köhler, Servaes, and Schüle on tuberculin injection for diagnostic purposes. We have not the space to review them in detail; it may suffice to say that we can recommend the *Beiträge* to any one sufficiently familiar with German to read and understand it. Of particular interest in this present number is the controversy between the advocates and opponents of the diagnostic value of tuberculin. Professor Schüle categorically opposes its use in Volume II, No. 1, and in the present number Köhler advocates it most enthusiastically.

A Textbook of Physiology. By Isaac Ott, A. M., M. D., Professor of Physiology in the Medico-chirurgical College of Philadelphia. With 137 Illustrations. Bound in extra cloth. Philadelphia: F. A. Davis Company. Pp. 583. (Price, $3.00 net.)

A book of this type is exceedingly useful for students, inasmuch as it contains but little that is debatable on the subject of physiology, but it must always be supplemented either by laboratory work or by practical demonstration, in order to furnish students with a well rounded view of the subject. As the writer states in the preface, the illustrations have been selected from various authorities who have written on the subject, and most of them are old friends and satisfactory. Some, however, are very poor and imperfectly reproduced. The type is clear and of good size, and the binding fair for a book of this character.

BOOK AND MAGAZINE NOTES.

McClure's Magazine for July is a number particularly interesting to physicians. Besides the articles we have already noted, by Miss Myra Kelly, a daughter of a member of the profession, and by Clara Morris on her experience with the moxa, the current issue has a story, by Richard F. Woods, called The Ringing of the Bell. This is a powerful imitation of the work of Poe and, if not convincing to the materialistic physician, will interest him, while certainly containing a multitude of thrills for the average reader.

BOOKS, PAMPHLETS, ETC., RECEIVED.

Diseases of the Nose and Throat. By D. Braden Kyle, M. D., Professor of Laryngology and Rhinology, Jefferson Medical College, Philadelphia; Consulting Laryngologist, Rhinologist and Otologist, St. Agnes's Hospital. Third Edition, Thoroughly Revised and Enlarged. With 175 Illustrations and 6 Chromolithographic Plates. Philadelphia, New York, London: W. B. Saunders & Co., 1904. Page 669. [Cloth, $4.00; Sheep or Half Morocco, $5.00.]

A Text Book of Mechanotherapy. (Massage and Medical Gymnastics) for Medical Students, Trained Nurses, and Medical Gymnasts. By Axel V. Grafstrom, B. Sc., M. D., Attending Physician to the Gustavus Adolphus Orphanage, Jamestown, N. Y. Second Edition, Revised, Enlarged, and Entirely Reset. 12mo of 200 Pages, Fully Illustrated. Philadelphia, New York, London: W. B. Saunders & Co., 1904. [Cloth, $1.25.]

Proceedings of the Academy of Natural Sciences of Philadelphia, 1904.

Studies from the Department of Neurology, Publications of Cornell University Medical College. Vol. I, New York city, 1904.

Anleitung zum chemischen Arbeiten für Mediciner. Von Dr. F. Rohmann, ausserordentlicher Professor an der Universität Breslau. Zweite Auflage. Mit 32 Abbildungen im Text. Berlin: S. Karger, 1904.

New York Eye and Ear Infirmary Reports. Vol. XI. The Knickerbocker Press (G. P. Putnam's Sons), 27 and 29 West Twenty-third Street, New York

Ninth Annual Report of the Board of Managers of the Rome State Custodial Asylum, at Rome, N. Y., for the Year Ending September 30, 1903. Adopted at Annual Meeting, December 7, 1903. Transmitted to the Legislature January 27, 1904. Albany: Oliver A. Quayle, 1904.

Materia Medica for Nurses. By Emily A. M. Stoney, Superintendent of the Training School for Nurses in the

Carney Hospital, South Boston, Mass. Second Edition, Thoroughly Revised. Philadelphia, New York, London: W. B. Saunders & Co., 1904. [Cloth, $1.50 net.]

Bureau of Health. Annual Report, Philadelphia, 1903. First Annual Message of JOHN WEAVER, Mayor of the city of Philadelphia, with the Annual Reports of the Director of the Department of Public Health and Charities and Chief of the Bureau of Health, for the Year Ending December 31, 1903. Issued by the city of Philadelphia, 1904. Philadelphia: Dunlap Printing Company, 1904.

Unconscious Therapeutics; or the Personality of the Physician. By ALFRED T. SCHOFIELD, M. D., M. R. C. S., etc., and Honorary Physician to Friedenheim Hospital, etc. Philadelphia: P. Blakiston's Son & Co. [Price, $1.50.]

First Report of the Tenement House Department of the City of New York. Vol. I. January 1, 1902-July 1, 1903.

Pestbazillen im Pestserum. Reflexionen über Isotherapie. von Dr. VON NIESSEN WIESBADEN. Mit zwei Lichtdruck-Tafeln. Hamburg: Gebrüder Ludeking, 1904. [Preis, Mk. 1.50.]

Transactions of the American Röntgen Ray Society. Fourth Annual Meeting, Philadelphia, Pa., December 9 and 10, 1903.

A System of Practical Surgery. By Professor E. VON BERGMANN, M. D, of Berlin; Professor P. VON BRUNS, M. D., of Tübingen, and Professor J. VON MIKULICZ, M. D., of Breslau. Vol. III. Translated and Edited by WILLIAM T. BULL, M. D., Professor of Surgery, College of Physicians and Surgeons, Columbia University, New York, and JOHN B. SOLLEY, M. D., New York. Surgery of the Extremities. New York and Philadelphia: Lea Brothers & Co., 1904.

Modern Ophthalmology. A Practical Treatise on the Anatomy, Physiology, and Diseases of the Eye. By JAMES MOORES BALL, M. D., Professor of Ophthalmology in the St. Louis College of Physicians and Surgeons. With 417 Illustrations in the Text and Numerous Figures on 21 Colored Plates, nearly all Original. 820 Pages, Extra Large Royal Octavo. Philadelphia: F. A. Davis Company, Publishers. [Price, Extra Cloth, $7.00 net; Half Morocco, $8.50 net.]

Cleft Palate and Hare Lip. The Earlier Operation on the Palate. By EDMUND OWEN, M. B.; F. R. C. S., Surgeon-in-Chief to the French Hospital, Consulting Surgeon to St. Mary's Hospital and to the Hospital for Sick Children, Great Ormond Street, London. London: Baillière, Tindall, and Cox, 1904.

To Windward. By HENRY C. ROWLAND (M. D.). New York: A. S. Barnes & Co., 1904. [Price, $1.50.]

The Fat of the Land. By JOHN WILLIAMS STREETER (M. D.). New York: The Macmillan Company, 1904. [Price. $1.50.]

Medical Diagnosis. Special Diagnosis of Internal Medicine. A Handbook for Physicians and Students. By Dr. WILHELM V. LEUBE, Professor of Medicine, and Physician-in-Chief to the Julius Hospital at Würzburg. Authorized Translation from the Sixth German Edition. Edited, with annotations, by JULIUS L. SALINGER, M. D., Late Assistant Professor of Clinical Medicine in the Jefferson Medical College, and Physician to the Philadelphia Hospital. With Five Colored Plates and 74 Illustrations in the Text. New York and London: D. Appleton & Co., 1904.

Diseases of the Intestines and Peritonæum. By Professor Dr. HERMANN NOTHNAGEL, Professor of Special Pathology and Therapy, University of Vienna. Edited, with additions, by HUMPHREY D. ROLLESTON, M. D., F. R. C. P., Physician to St. George's Hospital, London; Formerly Examiner in Medicine in the University of Durham, etc. Authorized Translation from the German, under the Editorial Supervision of ALFRED STENGEL, M. D., Professor of Clinical Medicine in the University of Pennsylvania. Philadelphia, New York, London: W. B. Saunders & Co., 1904. [Cloth, $5.00; Half Morocco, $6.00.]

Tuberculosis and Acute General Miliary Tuberculosis. By Dr. G. CORNET, of Berlin. Edited, with additions, by WALTER B. JAMES, M. D., Professor of the Practice of Medicine in the College of Physicians and Surgeons (Columbia University), New York. Authorized Translation from the German, under the Editorial Supervision of ALFRED STENGEL, M. D., Professor of Clinical Medicine in the University of Pennsylvania. Philadelphia, New York, London: W. B. Saunders & Co., 1904. [Cloth, $5.00; Half Morocco, $6.00.]

Obstetrical and Gynæcological Nursing. By EDWARD P. DAVIS, A. M., M. D., Professor of Obstetrics in the Jefferson Medical College, Philadelphia, and in the Philadelphia Polyclinic; Obstetrician to the Jefferson and Polyclinic Hospitals, etc. Second Edition, Revised. Philadelphia, New York, London: W. B. Saunders & Co., 1904. [Polished Buckram, $1.75.]

Transactions of the American Pædiatric Society. Fifteenth Session, held at Washington, D. C., May 12, 13, and 14, 1903. Edited by WALTER LESTER CARR, M. D. Reprinted from Archives of Pædiatrics, 1903.

Manuel d'orthopédie vertébrale. Par le Dr. A. CHIPAULT (de Paris). Paris: A. Maloine, 1904.

The Ophthalmic Year Book. A Digest of the Literature of Ophthalmology, with Index of Publications for the Year 1903. By EDWARD JACKSON, A. M., M. D., Emeritus Professor of Diseases of the Eye in the Philadelphia Polyclinic; President of the American Academy of Ophthalmology and Otolaryngology, etc. With 45 Illustrations. Denver, Col.: The Herrick Book & Stationery Company, 1904.

Die Buchführung in Apothekenbetriebe nach einfachem System, angewendet auf mittlere und kleine Apotheken. Ein Leitfaden zur Erlernung der Apothekenbuchführung für Apotheker und Studierende der Pharmazie. Von Dr. JOSEF BARBER, Apotheker und Gremialvorsteher in Czernowitz, und VALERIAN SCHESTAUBER, Lehrer der kommerziellen Facher an der k.k. Staatsgewerbeschule in Czernowitz und ständig beeideter Sachverstandiger für das Buch-und-Rechnungsfach beim k.k. Landesgerichte daselbst. Wien und Leipzig: A. Hartleben, 1904. [Price, M. 3.]

Epilepsy and Its Treatment. By WILLIAM P. SPRATLING, M. D., Superintendent of the Craig Colony for Epileptics at Sonyea, N. Y., etc. Handsome Octavo Volume of 522 Pages, Illustrated. Philadelphia, New York, London: W. B. Saunders & Co., 1904. [Cloth, $4.00.]

Lectures on Clinical Psychiatry. By Dr. EMIL KRAEPELIN, Professor of Psychiatry in the University of Munich. Authorized Translation from the German. Revised and Edited by THOMAS JOHNSTONE, M. D., Edin., M. R. C. P., Lond., Member of the Medicopsychological Association of Great Britain and Ireland. New York: William Wood & Co., 1904. [Price, $3.50.]

The Elements of Kellgren's Manual Treatment. By EDGAR F. CYRIAX, M. D., Edinburgh, 1901; Gymnastic Director, Stockholm, 1899. New York: William Wood & Co., 1904. [Price, $4.00.]

Miscellany.

The Feeding and Care of Children After the First Year.—The following is the author's summary of a paper on this subject, by Dr. Rowland G. Freeman, in the *Archives of Pædiatrics* for June: *Summary.*—Systematic examinations of all children under our charge should be undertaken at regular intervals, and should include the level of the shoulders and hips, the spine, eyes, ears, and throat. During the second year a child should be fed five times a day; the diet at the beginning including only milk, gruel, and orange juice, to which later may be added an egg, soup, bread and butter, and at the end of the year meat. Beef juice should be used only as a tonic. During the third year but three meals should be given, with an extra bottle of milk at 10 a. m.; the articles of food being continued with the addition of certain vegetables and simple desserts. After the third year but three meals a day should be given, including the same articles of food, and throughout childhood about one quart of milk should be taken daily, and the evening meal should consist only of cereal and milk and bread and butter. Both the variety and amount of food must be carefully restricted. Children during the second year should sleep twelve hours at night and have a morning and afternoon nap each day, and throughout childhood should continue to sleep twelve hours at night with one nap during the day. Provision for the exercise of children should be carefully planned. At first by the use of the nursery fence and baby jumper, and later by systematic walks for short distances at a time, and still later by bicycling, horseback riding, and tramps in the country. Throughout childhood they should be kept as much as possible out of close and crowded rooms. When in the house the room should receive ventilation from out of doors and they should be kept in the absolute open air several hours each day.

E Pur Si Muove, Even in England.—The supply of pure ice in this country, says the London *Lancet*, for domestic purposes is not so abundant or available as it should be, and it is absurd that practically the only shop where it may be obtained is that kept by the fishmonger, who keeps it, not for purposes of consumption, but for cooling fish. The fishmonger's shop does not always represent an environment—that is, sanitarily speaking—satisfactory; yet when ice is wanted in sickness or in health the only tradesman that can be found to supply it is the fishmonger, and his supply is usually limited. It seems ridiculous that in the English summer the demand for ice should not be sufficient to warrant the establishment of a special agency for its supply.

We feel sure that if such a scheme could be organized it would be widely appreciated, and would succeed as soon as the public realized how much better and healthier it is to have their food and beverages kept cool during the days of a hot and seasonable summer. As it is, they have to be content with semiliquid butter and mawkish lukewarm beverages which should be cold, especially those which are aerated. A cheap and abundant supply of pure ice for domestic purposes would give the housekeeper a chance of keeping a cool storeroom, in which meat, poultry, eggs, and other perishable articles of food could be preserved. Not only would waste of food be so prevented, but the ravages of the putrefying agencies of hot weather would be checked and the food saved from becoming unwholesome if not positively dangerous. In fact, we imagine that nobody will deny the very great advantages derived from keeping certain foods cold in the summer and preserving them in a state fit for consumption and attractive to the eye and palate; and yet practically no steps are taken to supply such an important and very evident need.

Ophthalmology According to Newspapers.—In a heartrending account of the troubles of a little blind girl a New York paper of June 24th explains the loss of sight by the statement that, at the age of seven years, the child was obliged to have her eyes removed to prevent a cataract from reaching the brain. This cataract must have been a veritable Niagara in strength to have induced such a prognosis and so radical an operation.

Official News.

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending July 23, 1904:

Baily, Howard H., First Lieutenant and Assistant Surgeon. Assigned to duty at Plattsburgh Barracks, N. Y.

Bevans, James L., First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Barrancas, Fla., and ordered to Fort H. G. Wright, N. Y., for duty.

Brown, Henry L., First Lieutenant and Assistant Surgeon. Assigned to Columbus Barracks, Ohio.

Ford, Clyde S., Captain and Assistant Surgeon. Promoted captain and assistant surgeon, to rank from June 16, 1904.

Ford, Clyde S., Captain and Assistant Surgeon. Relieved from duty at Fort H. G. Wright, N. Y., and ordered to Fort Barrancas, Fla., for duty.

Freeman, Paul F., First Lieutenant and Assistant Surgeon. Assigned to duty at Fort Slocum, N. Y.

Humphreys, Harry G., First Lieutenant and Assistant Surgeon. Assigned to duty at Fort Totten, N. Y.

Public Health and Marine Hospital Service:

Official List of the Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the Public Health and Marine Hospital Service for the fourteen days ending July 21, 1904:

Allen, G. C., Pharmacist. Granted leave of absence for thirty days from July 13th.

Amesse, J. W., Assistant Surgeon. Department letter of March 26, 1904, granting Assistant Surgeon Amesse leave of absence for two months and fifteen days, amended to read two months and eleven days from May 1st.

Bahrenburg, L. P. H., Assistant Surgeon. Relieved from duty at Chicago, Ill., and temporary duty at Evansville, Ind., and directed to proceed to Delaware Breakwater Quarantine and report to the Medical Officer in Command for duty and assignment to quarters. July 9, 1904.

Bailhache, Preston H., Surgeon. Granted seven days' leave of absence from July 17, 1904, under paragraph 189 of the regulations.

Billings, W. C., Passed Assistant Surgeon. Department letter of March 28, 1904, granting Passed Assistant Surgeon Billings leave of absence for two months and three days, amended to read one month and twenty-eight days.

Brown, B. J., Jr., Acting Assistant Surgeon. Granted leave of absence for twenty-one days from July 8th.

Clark, Taliaferro, Passed Assistant Surgeon. Relieved from duty at Ellis Island, N. Y., and directed to proceed to Philadelphia, Pa., and report to Medical Officer in Command for assignment to exclusive duty in connection with examinations of aliens. July 19, 1904.

Cleaves, F. H., Acting Assistant Surgeon. Granted leave of absence for twenty-three days from July 8th.

Collins, G. L., Assistant Surgeon. Relieved from duty at Ellis Island, N. Y., and directed to proceed to Reedy Island Quarantine and report to the Medical Officer in Command for duty and assignment to quarters, relieving Assistant Surgeon W. K. Ward. July 12, 1904.

Glover, M. W., Assistant Surgeon. Granted leave of absence, on account of sickness, for seven days. July 13, 1904.

Goldsborough, B. W., Acting Assistant Surgeon. Granted leave of absence for three days from July 13th.

Gregory, G. A., Acting Assistant Surgeon. Granted leave of absence for seven days from July 5th.

Grubbs, S. B., Passed Assistant Surgeon. To proceed to Moss Point, Miss., for special temporary duty. July 12, 1904.

Guiteras, G. M., Surgeon. Granted leave of absence for seven days from July 14th.

Harris, B. Y., Acting Assistant Surgeon. Granted leave of absence for thirty days from August 1st.

Hobdy, W. C., Passed Assistant Surgeon. Granted leave of absence for twenty-four days from July 26th.

Keatley, H. W., Acting Assistant Surgeon. Granted leave of absence for two days from July 8, 1904, under paragraph 210 of the regulations.

Korn, W. A., Assistant Surgeon. Relieved from duty at Philadelphia, Pa., and directed to proceed to Perth Amboy, N. J., for duty. July 12, 1904.

Macdowell, W. F., Pharmacist. Granted leave of absence for thirty days from August 8th.

Mead, F. W., Surgeon. Granted leave of absence for one month from August 1st.

Ramus, Carl, Passed Assistant Surgeon. Relieved from duty at San Francisco, Cal., and directed to proceed to Honolulu, T. H., and report to Chief Quarantine Officer for duty, relieving Assistant Surgeon R. L. Wilson. July 15, 1904.

Roberts, Norman, Assistant Surgeon. Relieved at New Orleans, La., and directed to proceed to Evansville, Ind., and assume temporary charge, relieving Assistant Surgeon L. P. H. Bahrenburg. July 9, 1904.

Ryder, L. W., Pharmacist. Granted leave of absence for thirty days from August 15th.

Savage, W. L., Acting Assistant Surgeon. Granted leave of absence for thirty days from August 1st.

Stansfield, H. A., Passed Assistant Surgeon. Relieved from duty in the Hygienic Laboratory and directed to report to the chairman of the Isthmian Canal Commission for duty on the Isthmus of Panama. July 13, 1904.

Steger, E. M., Assistant Surgeon. Relieved from duty at Ellis Island, N. Y., and directed to proceed to New Orleans, La., and report to Medical Officer in Command for duty in connection with the examination of aliens, relieving Assistant Surgeon A. M. Stimson. July 12, 1904.

Stevenson, J. W., Acting Assistant Surgeon. Granted leave of absence for ten days from July 10th.

Stimson, A. M., Assistant Surgeon. Upon being relieved at New Orleans, La., by Assistant Surgeon E. M. Steger, to proceed to Washington, D. C., and report to the Director of the Hygienic Laboratory for duty. July 12, 1904.

Stoner, J. B., Surgeon. To proceed to Ocean City, Md.; Chincoteague, and Wachapreague, Va., for the physical examination of certain keepers and surfmen of the Life Saving Service. July 9, 1904.

Tappan, J. W., Acting Assistant Surgeon. Granted leave of absence for thirty days from July 10th.

Tappan, J. W., Acting Assistant Surgeon. Department letter of July 6, 1904, granting Acting Assistant Surgeon Tappan leave of absence for thirty days from July 10th, amended to read thirty days from August 24th.

Todt, W. C., Acting Assistant Surgeon. Granted leave of absence for fourteen days from July 15th.

Walker, R. T., Acting Assistant Surgeon. Granted leave of absence for four days from July 26th.

Ward, W. K., Assistant Surgeon. Upon being relieved at Reedy Island Quarantine by Assistant Surgeon G. L. Collins, to proceed to Washington, D. C., and report at the Bureau for instructions preliminary to assignment to duty in the office of the United States Consul at Bridgeton, Barbadoes, British West Indies. July 12, 1904.

Watters, M. H., Pharmacist. Granted leave of absence for twenty-five days from August 15th.

Weldon, W. A., Acting Assistant Surgeon. Granted leave of absence for thirty days from July 8th.

White, J. H., Surgeon. Granted extension of leave of absence for three days from July 18th.

Wilson, R. L., Assistant Surgeon. Upon being relieved at Honolulu, T. H., by Passed Assistant Surgeon Carl Ramus, to proceed to Washington, D. C., and report to the Director of the Hygienic Laboratory for duty. July 15, 1904.

Promotion.

Assistant Surgeon H. A. **Stansfield** commissioned as passed assistant surgeon to rank as such from June 4th.

Boards Convened.

Board convened to meet at Washington, D. C., July 11, 1904, for the physical examination of an officer of the Revenue Cutter Service. Detail for the board—Assistant Surgeon General G. T. **Vaughan**, chairman. Assistant Surgeon A. J. **McLaughlin**, recorder,

Board convened to meet at the marine hospital, Baltimore, Md., July 12, 1904, for the physical examination of an officer of the Revenue Cutter Service. Detail for the board—Assistant Surgeon C. W. **Wille**, chairman. Acting Assistant Surgeon J. G. **Evans**, recorder.

Board convened to meet at the Marine Hospital, Stapleton, N. Y., July 18, 1904, for the physical examination of an officer of the Revenue Cutter Service. Detail for the board—Passed Assistant Surgeon A. C. **Smith**, chairman. Passed Assistant Surgeon J. B. **Greene**, recorder.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the week ending July 15, 1904:

Smallpox—United States.

Place.	Date.	Cases.	Deaths.
California—San Francisco	June 26-July 3	1	
Florida—General	July 2-9	8	1
Illinois—Chicago	July 2-9	11	
Illinois—Danville	July 2-9	5	
Kentucky—Covington	July 2-9	2	
Massachusetts—Fitchburg	July 2-9	1	
Massachusetts—North Adams	July 2-9	1	
Michigan—At 79 places	June 25-July 2	Present.	
Missouri—St. Louis	July 2-9	3	
Nebraska—Omaha	July 2-9	2	
Nebraska—South Omaha	July 2-9	2	
New York—Niagara Falls	July 2-9	1	
New York—New York	July 2-9		1
Ohio—Cincinnati	June 23-July 8	6	1
Ohio—Zanesville	June 4-July 2	7	
Pennsylvania—Philadelphia	July 2-9	1	
Pennsylvania—Williamsport	July 2-9	1	
Wisconsin—Milwaukee	June 25-July 8	9	

Smallpox—Foreign.

Place.	Date.	Cases.	Deaths.
Brazil—Rio de Janeiro	May 22-June 5	291	103
China—Shanghai	May 14-June 14		10
Cuba—Havana	June 18-25		1
		Source of infection probably imported to case.	
Great Britain—Birmingham	June 18-25	1	
Great Britain—Bristol	June 25-July 2	7	
Great Britain—Glasgow	June 24-July 1	20	1
Great Britain—London	June 18-25	16	1
Great Britain—Manchester	June 18-25	2	
Gt. Britain—Newcastle-on-Tyne	June 18-25	12	1
Great Britain—Nottingham	June 11-18		6
India—Calcutta	June 4-11		1
India—Karachi	June 5-12	2	2
Java—Batavia	May 14-28	6	
Mexico—City of Mexico	June 12-26	12	5
Russia—Moscow	June 11-18	18	4
Russia—Odessa	June 18-25	1	
Russia—Warsaw	June 11-18		22
Straits Settlements—Singapore	May 7-14		1
Turkey—Beirut	June 4-11	Present.	
Turkey—Constantinople	June 19-26		4

Yellow Fever.

Place.	Date.	Cases.	Deaths.
Brazil—Rio de Janeiro	May 22-June 5	6	2
Mexico—Coatzacoalcos	June 11-25	2	
Mexico—Merida	June 19-25	7	2
Mexico—Tehuantepec	June 19-25	2	1
Mexico—Vera Cruz	June 25-July 2	5	1

Cholera.

Place.	Date.	Cases.	Deaths.
India—Bombay	June 7-14		2
India—Calcutta	June 4-11		7
India—Madras	June 4-10		1
Turkey in Asia	June 6	361	210

Plague.

Place.	Date.	Cases.	Deaths.
Africa—Cape Colony	May 21-28	1	
Africa—Natal	June 2	Present.	
Brazil—Bahia	July 9	5	2
Brazil—Rio de Janeiro	May 22-June 5	3	1
Chile—Arica	July 10		1
Chile—Antofagasta	May 1-31		52
Egypt	May 28-June 4	14	8
		Including 4 cases, 1 death, in Alexandria, and 1 case in Port Said.	
India—Bombay	June 7-14		63
India—Calcutta	June 4-11		36
India—Karachi	June 5-12	21	22
Mauritius	April 8-May 5	3	3
Peru—Trujillo	July 10		1

The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the week ending July 22, 1904:

Place.	Date.	Cases.	Deaths.
Smallpox—United States.			
Colorado—Denver	May 28-June 4	1	
Colorado—Denver	July 2-9	2	
Dist. of Columbia—Washington	July 9-16	1	
Florida—Jacksonville	July 9-16	1	
Georgia—Macon	July 2-9	2	
Illinois—Chicago	July 9-16	10	
Illinois—Springfield	July 11-18	5	
Iowa—Clinton	July 2-9	1	
		Imported from St. Louis	
Louisiana—New Orleans	July 9-16	3	
		Traceable to importation.	
Michigan—Detroit	July 9-16	1	
Michigan—At 71 localities	July 2-9	Present.	
Missouri—St. Louis	July 9-16	3	
New Hampshire—Manchester	July 9-16	3	
New York—Buffalo	July 9-16	1	
New York—Niagara Falls	July 9-16	1	
Pennsylvania—Philadelphia	July 9-16	1	
Pennsylvania—Steelton	July 9-16	1	
Tennessee—Memphis	July 9-16	1	
Wisconsin—Milwaukee	July 9-16	2	
Smallpox—Foreign.			
Austria—Prague	June 18-July 2	7	
China—Shanghai	June 11-18		8
Great Britain—Birmingham	July 2-9	1	
Great Britain—Bradford	June 18-July 2	7	
Great Britain—Edinburgh	June 25-July 2	2	
Great Britain—Glasgow	July 1-8	19	2
Great Britain—Liverpool	July 2-9	1	
Great Britain—London	June 25-July 2	10	1
Great Britain—Manchester	June 25-July 2	1	
Gt. Britain—Newcastle-on-Tyne	June 25-July 2	8	2
Great Britain—Nottingham	June 18-July 2	22	
India—Bombay	June 14-21		13
India—Calcutta	June 11-18		2
Italy—Palermo	June 18-July 2	2	1
Japan—Kobe	June 11-25	2	
Mexico—City of Mexico	June 26-July 10	5	6
Russia—Moscow	June 18-25	10	7
Russia—St. Petersburg	June 25-July 2	13	4
Turkey—Alexandretta	June 18-25		1
Turkey—Beirut	June 18-July 2	Present.	
Yellow Fever.			
Colombia—Barranquilla	June 23-29		1
Costa Rica—Limon	July 2-9	1	
Ecuador—Guayaquil	June 8-29		21
Mexico—Coatcoalcos	July 2-9	1	
Mexico—Vera Cruz	July 2-9	2	1
Cholera.			
China—Shanghai	June 11-18	Reported.	
India—Calcutta	June 11-18		9
India—Madras	June 11-17		1
Persia—Keem	June 18	Present.	
Turkey in Asia	June 13	342	230
Plague.			
Africa—Cape Colony	June 4-11	1	
Africa—Transvaal	To June 26	146	96
Australia—Brisbane	May 23-June 1	4	
Australia—Sydney	May 27	1	
Chile—Antofagasta	May 24-31		12
China—Amoy	June 4	Present.	
Egypt*	June 11-18	30	10
India—Bombay	June 14-21		55
India—Calcutta	June 11-18		31
India—Karachi	June 12-19	8	8

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* Including 5 cases 1 death in Alexandria and 1 case in Port Said.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending July 23, 1904:

BLACK, W. H., Acting Assistant Surgeon. Detached from the Navy Yard, New York, and ordered to the Naval Station, New Orleans, La.

BOGERT, E. S., JR., Surgeon. Ordered to continue duty at the Naval Academy.

CATHER, D. C., Assistant Surgeon. Appointed assistant surgeon, with rank of lieutenant, junior grade, from July 9, 1904.

CURTIS, L. W., Surgeon. Detached from the *Buffalo* and ordered home to await orders.

DE VALIN, C. M., Passed Assistant Surgeon. Detached from the *Albany* and ordered home to await orders.

GRIEVE, C. C., Assistant Surgeon. Detached from the Naval Station, Cavite, P. I., and ordered to the Naval Station, Guam, L. I.

MCDONELL, W. N., Acting Assistant Surgeon. Detached from the *Glacier* and ordered to the *Marcellus*.

MCMURDO, P. F., Acting Assistant Surgeon. Detached from the *Gloucester* and ordered to the Navy Yard, League Island, Pa.

PARKER, E. G., JR., Passed Assistant Surgeon. Detached from the *Wheeling* and ordered to the *Buffalo*.

SUTTON, R. L., Assistant Surgeon. Detached from duty with the Marine Battalion on the Isthmus of Panama and ordered to the Naval Hospital, New York, for treatment.

Births, Marriages, and Deaths.

Married.

BRYANT—BIXBY.—In San Francisco, California, on Tuesday, July 12th, Dr. Ernest Bryant and Miss Susan Bixby.

DU BELL—LAVERTY.—In Philadelphia, Pennsylvania, on Wednesday, July 13th, Dr. Amos Keeler Du Bell, Jr., and Miss Madge Elizabeth Laverty.

LUETSCHER—TUMBLESON.—In Baltimore, Maryland, on Saturday, July 16th, Dr. John Arthur Luetscher and Miss Charlotte Elizabeth Tumbleson.

MCDONALD—HARDIE.—In Milwaukee, Wisconsin, on Friday, June 17th, Dr. James W. McDonald and Miss Bertie Grace Hardie.

THOMPSON—PALMER.—In Lapeer, Michigan, on Tuesday, July 12th, Dr. A. H. Thompson and Miss Hattie A. Palmer.

VOEBEL—STEVENS. In Ilchester, Maryland, on Thursday, July 14th, Dr. Benjamin H. Voebel and Miss Jessie E. Stevens.

Died.

BELL.—In Kansas City, Missouri, on Wednesday, July 13th, Dr. James Buchanan Bell, in the eighty-second year of his age.

FISH.—In Denver, Colorado, on Tuesday, July 12th, Dr. Hamilton Fish.

FITZGERALD.—In Glens Falls, N. Y., on Sunday, July 17th, Dr. David J. Fitzgerald, in the forty-seventh year of his age.

HANSCOM.—In Minneapolis, Minnesota, on Saturday, July 16th, Dr. W. H. Hanscom.

HILL.—In Lewiston, Maine, on Sunday, July 17th, Dr. E. H. Hill, in the sixty-first year of his age.

HOBART.—In Elizaville, N. Y., on Friday, July 15th, Dr. Gideon C. Hobart, of Brooklyn, in the sixtieth year of his age.

HOLT.—In Lowell, Massachusetts, on Tuesday, July 19th, Dr. Edward B. Holt, in the fiftieth year of his age.

JACOB.—In New York, on Monday, July 18th, Dr. Isidor Herman Jacob.

JOHNSON.—In Haverhill, Massachusetts, on Saturday, July 16th, Dr. Otis H. Johnson, in the sixty-fourth year of his age.

LAMBERT.—In New York, on Sunday, July 17th, Dr. Edward W. Lambert, in the seventy-fourth year of his age.

LA RUE.—In Smith's Grove, Kentucky, on Monday, July 18th, Dr. Thomas B. La Rue, in the eighty-fourth year of his age.

MARTENET.—In Baltimore, Maryland, on Monday, July 18th, Dr. Jacob Fussell Martenet, in the forty-seventh year of his age.

RECORDS.—In Lawrence, Indiana, on Friday, July 8th, Dr. Samuel Records, in the eighty-fifth year of his age.

SHAW.—In Pueblo, Colorado, on Friday, July 8th, Dr. John H. Shaw.

SPALDING.—In Lyons, Michigan, on Thursday, July 14th, Dr. David C. Spalding, in the seventy-first year of his age.

SUMNER.—In Hartford, Connecticut, on Tuesday, July 12th, Dr. Charles Fletcher Sumner, in the eighty-eighth year of his age.

WALL.—In Jasper, Alabama, on Monday, July 11th, Dr. A. A. Wall, in the eightieth year of his age.

WENNER.—In Milford, N. J., on Tuesday, July 19th, Dr. George V. Wenner, in the forty-first year of his age.

WOODRUFF.—In Sherman, Connecticut, on Tuesday, July 19th, Dr. J. N. Woodruff, in the seventieth year of his age.

New York Medical Journal
AND
Philadelphia Medical Journal.
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A Weekly Review of Medicine

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Original Communications.

THE PATHOGENESIS OF THE ANEURYSMATA OF THE AORTA.*

BY FRITZ SCHWYZER, M. D.,

NEW YORK.

Aneurysms of the aorta have been ascribed to lues as early as 1554 (Fernel). Morgagni (1682-1771), Haller (1708-1777), Lancisi (1728), Matteucci (1756), give quite clear descriptions of aneurysms, and authors as old as Severinus (1724) and Scarpa claim syphilis as their cause. Later, the significance of arteriosclerosis was recognized, and in the seventies of the last century, the microorganisms were given their place as one of the ætiological factors of aneurysms. In the newer literature, the syphilitic origin of aneurysms receives more support, and writers like Fournier, Gerhardt, Senator, etc., consider syphilis as their main cause; still a great number deny the luetic nature of aneurysms, and Rosenbach, in his book on heart diseases (1897), goes even so far as to assert that antisyphilitic treatment causes arteriosclerosis, and that such treatment is contraindicated in aneurysma cases. Having had occasion to see many aneurysms, I think it is my duty to publish my experience with them.

The reason for the uncertainty which still exists in this matter lies in the difficulty which many pathologists encounter in recognizing luetic aortitis. I have spoken of this in a previous paper, and have shown there how comparatively easy it is to distinguish arteriosclerosis from luetic aortitis. Therefore, whenever a post mortem can be made a distinction should not be difficult.

The pathological process which leads to the formation of an aneurysm is, as all agree (Koester, as well as Heller's school, and v. Recklinghausen), as follows: First, there is a weakening of the aortic wall, then its distention by the blood pressure. Arteriosclerosis, lues, traumatism, and acute inflammatory processes like septic endoaortitis, and mesoaortitis are considered the main factors in the weakening of the aortic wall.

Let us now consider the value of these different factors:

Traumatism.—As has been shown by several writers, and also in my paper on the Construction of the Valvular Part of the Aorta, the normal aortic wall is so strong that it is scarcely possible that it can be weakened to such an extent by any acute traumatism. If a force from without worked on the thorax its skeleton would have to be crushed to a pulp before the aorta could be reached. It is, of course, possible that a bullet, grazing the aorta, may pass through the human body without killing and lead to the formation of a traumatic aneurysm. Cases of this kind have been described, but are too rare to come within the limit of our consideration. Another form of traumatism to which the formation of aneurysms is occasionally attributed, seems to me to be just as much out of the question—I mean a sufficiently great increase in the blood pressure during over extertion, like heavy lifting, or running up hill. This form could affect the normal aorta only by an increase of ten times the possible blood pressure. I have seen several cases in which the formation, or at least the first sign of the aneurysm, dated from an over exertion; but in these cases there were luetic or arteriosclerotic changes of long standing in the aortic wall, and I have every reason to believe that the first symptoms appeared when a more acute distention of the already quite diseased aortic wall took place. I should also like to state that high blood pressure would tear the aortic valves long before it could injure the normal aortic wall.

Another form of trauma, if I may use that word in this sense, is a lesion of the aortic wall by pressure from outside. Literature describes aneurysms caused by pressure from mediastinal tumors; by the involving of the aortic wall by tuberculous granulations (the wall of a large cavity touching the aorta); and there are cases of mediastinal gummata reported, which, through their growth, weaken and involve the aortic wall, and thus lead to its distention. A case of this kind is reported at the end of this paper. A traumatic factor, which until now has never been described in man, but which is rather frequent in horses, is the presence of blood parasites, parasitic worms, *Strongylus armatus.*

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* This article is the last of a series of three papers on the elastic tissue of the normal and diseased aorta. The first paper was published in our issue for May 28th, the second in that for July 9, 1904.

Several authors have described lesions of the aortic wall *par contrecoup.* That means that if a person falls heavily, the aorta, filled with blood, and therefore heavy, can be thrown against another part of the body, especially the vertebral column. Such an accident seems possible, but I cannot see how a more serious lesion could occur than a slight contusion of the adventitia, followed by a hæmorrhagic suffusion of the same.[1]

The widening of the aneurysm depends entirely upon the lesion of the wall. If a small part of it is weakened by an acute inflammatory process, for instance microbic aortitis, a small aneurysmal bulging out of the wall is formed—this is shown later, in one of my cases. If, on the other hand, a slow and pretty general aortitis is going on, the distention of the aorta will be gradual, going on for years until a large aneurysm is formed. These cases are usually of an arteriosclerotic nature. The luetic aneurysms, in a great majority of the cases, last only a few years till the fatal termination.

I must again refer to my paper on the Pathology of the Elastic Tissue of the Aorta. The main difference which I have found between the arteriosclerotic destruction of the elastic tissue and that of lues is, that the latter makes small spots of granulating tissue, while the former affects the aortic wall more generally. Lues, leading to the formation of miliary gummata and progressing with agglomeration of granular elements and leucocytes in spots, destroys, as we have seen, large tracts of elastic tissue, interrupting the elastic fibres entirely, and the collagenous fibres at least partly, thus setting numbers of small " wounds " in the media, which rapidly distend. Arteriosclerosis destroys many elastic fibres, but never leads to such rapid and thorough interruption of almost all the strengthening tissue of the aortic tube. Another factor which makes lues especially dangerous is, that aortic lues usually develops in comparatively few years after infection, or most often between the thirtieth and fortieth years, while arteriosclerosis is more frequent in older people. As a rule, men do their hardest work in their thirties; they are then best able to lift heavy weights or to do anything likely to increase momentarily the blood pressure to a very high degree; severe efforts are less likely among older people. Luetic aneurysms, therefore, are more usual in younger people, they run their course more rapidly, and are more often fatal than arteriosclerotic aneurysms in those of advanced age, which, because of their slow progress, frequently do not terminate life, it being interrupted by some intercurrent disease.

In the past ten years I have performed autopsies on about thirty cases of aneurysm, many of which I had occasion to observe and treat in life. Of these, seventeen were evidently luetic; anamnesis and post mortem giving every proof of it. In six others, the anamnesis was negative, but the appearance of the arteries and organs convinced me that they were luetic. Of the remaining seven cases, six were due to arteriosclerosis, and one was caused by acute aortitis. My statistics, therefore, show about 76 per cent. of my cases to be luetic. Those of other authors on this subject vary a great deal; Rasch gives lues 92 per cent., Welch about 66 per cent., Gerhardt 53 per cent., A. Frankel 36 per cent., Puppe 36 per cent., Bramwell 50 per cent., von Noorden 54 per cent., Schultz 66 per cent., Heller 85 per cent., Backus 85 per cent., Hampeln 82 per cent.[2]

The great difference in the percentages given by these authors, is probably accounted for by the different ways in which aortic arteriosclerosis and lues are distinguished (and perhaps by the frequency of lues in the field of observation of the divers authors). Most of the older writers have made no distinction between ordinary and luetic sclerosis of the aorta, and in their statistics only those cases figure as luetic that had an unquestionable luetic finding, such as large gummata surrounding the aorta or similar conditions. The latest authors, like Heller, Doehle, A. Frankel, and Arnsperger, founded their statistics on an exact anatomical diagnosis, and did not have to rely so much on the anamnesis; for that reason their percentage is much higher.

The rôle attributed to intoxication with alcohol in the ætiology of aneurysms seems to me to be exaggerated. I have treated a large number of chronic alcoholics and made many post mortems on such subjects, but I could never convince myself that they showed a greater percentage of aneurysma cases than other people, or even that they inclined more to arteriosclerosis. It seems to me that chronic alcoholism is much more apt to lead to Bright's disease than to arteriosclersis, while almost every case of chronic lead poisoning that I have seen showed more or less marked sclerosis of the peripheral arteries, leading to contracting kidney. The Bright's disease of the alcoholic is usually of another type. Gonorrhœic infection of the aortic wall, which is mentioned as a cause of aneurysms, I have never seen, although I have made quite a number of post mortems on patients who had had gonorrhœic endocarditis (pulmonalis, mitralis, and aortæ).

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[1] See Bernstein, *Zeitschrift für klinische Medicin,* Vol. XXIX, 1896.

[2] Part of these statistics cited from Arnsperger's Ætiologie u. Pathogenesis der Aortenaneurysmen. *Deutsches Archiv f. klin. Med.,* December 7, 1903.

Tuberculosis was considered, first by Rokitansky and later by many other writers, as excluding heart diseases and aneurysms. There seems to me to be a grain of truth in this, as a large group of heart disturbances are rare during tuberculosis—I mean, particularly, the rapidly developing arteriosclerosis, which runs its course with high blood pressure, and leads to sclerosis of the vital organs, especially the kidneys (radial pulse 22-26 or more cm. Hg). Tuberculosis has a marked tendency to lower the blood pressure, as Potain has shown. He found the blood pressure in consumptives ranging from 10-12 cm., or less. Now, if we return to the aneurysms, we see in tuberculosis cases that of the two ætiological factors, lesion of the aortic wall and distention by blood pressure, one, the blood pressure, is considerably diminished, so that even in pathological aortæ the widening will be less facile. On the other hand, there is no exclusion between lues and tuberculosis, and I have no reason to doubt the modern statistics, which found tuberculosis in 20-30 per cent. of the aneurysma cases. I have seen very few cases of actual tuberculosis with aneurysms, and believe that some of the patients described in literature as tuberculous, with aneurysms, were suffering from luetic phthisis of the lungs.

There is another disease supposed to cause the formation of aneurysms. Lancereaux[3] wishes to give to malaria quite an importance in this matter. I have never seen malarial aortitis, although in New York we have about the best malarial material one could wish for. Still it seems to me possible that a disease as many-sided as this one may occasionally attack even the aortic wall, just as it attacks nerves, muscles, tendons, capsules of joints, etc. Malaria, also, has a tendency to disturb the tonus of the blood vessels (vasomotor malarial attacks), and a localization of the plasmodium malariæ in the vasa vasorum of the aorta seems to me to be quite possible.

All the diseases mentioned, combined with acute and arteriosclerotic aortitis, furnish a smaller number of aneurysms than lues alone, and with my experience of luetic aortitis I can say that a great part of the cases with internal manifestations of syphilis, show specific changes in the aorta, and it is decidedly the lesser part of these that really develop aneurysms.

The ætiological diagnosis in aneurysma cases has a great significance in many ways: first, it is necessary to be clear about the danger of an affection of the aorta in any patient with syphilis; secondly, it is important from a therapeutical standpoint, as we have a specific treatment for lues; thirdly, it is important, because the prognosis in syphilitic aneurysma cases is rather worse than in those of arteriosclerosis. If we could diagnosticate the beginning of syphilitic aortitis, we should certainly be able to cure it and prevent the formation of aneurysms. But the diagnosis of an aneurysm can be made only when it is formed; when it has reached a certain size, so as to cause a murmur, dulness, pain, displacement of the heart, or disturbance of respiration, of the œsophagus, or of the nervus recurrens. When the distention has been begun, what may we expect of antiluetic treatment? We can make the gummata which surrounds the aorta, as well as the miliary gummata in the aortic wall disappear, but our treatment does not mend the destroyed and interrupted elastic and collagenous fibre systems. Instead of small noduli, we shall have newly formed, very yielding cicatricial tissue. It is natural that the elastic tissue, especially the annular (circular) fibres above and below the miliary gummata, will be torn, thereby making a small axial tear. The collagenous fibres will be interrupted in the gummata, but not entirely so in the tear just mentioned, because they are more ductile than the elastic tissue, and can be stretched. The stretching and the tearing of the elastic fibres will be enough to cause a new formation of connective tissue, which will pervade the aortic wall, first as soft granulating tissue, later more hard and fibrous. In the meantime the distention has progressed rapidly.

The success, or at least partial success, and arresting of the disease, depends upon our power to lower the blood pressure during the process of cicatrization, and this must be our therapeutic aim—for instance, giving nitroglycerin for several weeks, while the patient is subjected to a most energetic antiluetic treatment and kept in bed on a very mild diet, avoiding everything that would increase the blood pressure. I have not seen much success from intravenous injections of gelatin solution, but after experiments, a report of which will appear elsewhere, I promise myself a possibility of success with intravenous injections of calcium chloride solution. This increases the clotting power of the blood to a high degree, and can easily lead to the formation of blood clots, which would be desirable whenever there is danger of a rupture of the sac. But one must not forget that any attempt to increase the clotting power of the blood is accompanied by the likelihood of embolism. I am not so optimistic as Schultz, who saw with x ray pictures, taken before and after antiluetic treatment, a decided diminution in the size of the aneurysm.

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[3] L'aortite en plaques, ou aortite paludéenne, *Gaz. des hôp.*, 1899, No. 76.

I wish to say a few words about the issue of aneurysma cases, because I am able to report on several the termination of which was interesting. The most natural ending of an aneurysmatic is the bursting of the sac, through the skin, into the thoracic cavities, or into the trachea or œsophagus; but this does not happen in every case. Many times the patients succumb to the compression of the trachea, bronchi, or heart, or to arrosion of the vertrebral column. In certain instances it is embolism from aneurysmal blood clots that causes death. I have seen more than one aneurysmatic die suddenly of dyspnœa, or laryngospasm, without finding a special cause for it, except, perhaps, an involvement of the recurrent nerve. The aneurysmatic very often succumbs to an intercurrent disease, like pneumonia, tuberculosis of the lungs, or syphilitic cachexia. The only subject of aneurysm of the abdominal aorta that I have seen, died of intraperitoneal hæmorrhage.

The following is a short contribution to the casuistics of some of my more interesting aneurysma cases:

Case I.—A woman, aged sixty-five years, came to the German Hospital, New York, on account of dyspnœa. Face, arms, and breasts, œdematous and very cyanotic. No œdema in the lower part of the body, pronounced orthopnœa, strong murmur over the aorta.

Autopsy.—Aneurysm of the arcus aortæ of the size of two fists, superior vena cava compressed and partly thrombosed, shows a tear, one cm. long, with very thin edges, through which the aneurysm communicates with the right side of the heart. Aorta highly arteriosclerotic, partly calcified.

Anatomical Diagnosis.—Arteriosclerotic aneurysm with rupture into the vena cava superior.

Compression of the vena cava has been described in a number of cases, but its rupturing into this vein is extremely rare.

Case II.—A man, aged seventy years, operated on several years previously, on account of a questionable cancroid of the forehead. Later, a microscopical examination of the tumor showed infectious granulating tissue and no carcinoma. A year before his death, he complained of a sudden pain in his chest, after an effort in mountain climbing, and from that time suffered from marked dyspnœa. He died with symptoms resembling general paresis.

Autopsy.—A small aneurysm of the ascendant part of the aorta, partial compression of the superior vena cava, luetic aortitis, with senile changes of the aortic wall, luetic changes in the mediastinum, and signs of intestinal lues.

Anatomical Diagnosis.—Luetic aneurysm, with compression of the vena cava, and lues of the brain and of the viscera.

This patient had a clear history of over exertion, and he dated his symptoms of heart trouble from that moment. It seems to me quite likely that the mountain climbing was too much for the diseased aorta of the old man, and that a more acute distention of a severely luetic aorta took place. The anamnesis, however, established the fact that several years before this occurrence the patient had had active lues, so that the mountain climbing was but an additional ætiological factor.

Case III.—A man, aged thirty-two years, contracted lues ten years before, and came under my treatment on account of dyspnœa and pain in the chest. He showed marked signs of an aneurysm of the thoracic aorta. Specific treatment brought some relief at first, but six months after the first diagnosis he became worse (paralysis recurrens), and a few months later developed pulsating intercostal neuralgia and some signs of compression myelitis, a gibbus forming at the third thoracic vertebra. He became totally paraplegic and had excruciating pains in the lower part of his body. He died nine months after the first diagnosis, with symptoms of perforative peritonitis.

Anatomical Diagnosis.—Very large aneurysm of the descending part of the aorta, with corrosion of the second, third, and fourth thoracic vertebræ, luetic aortitis, embolism into the arteria mesenterica superior, with consecutive intestinal gangrene and peritonitis. Compression myelitis.

This case was interesting in many ways, especially because of the enormous destruction of the bone tissue. The bodies of three thoracic vertebræ were totally destroyed, only the arcus remaining. That the end came by perforation peritonitis was a surprise to me, but was easily explained by embolism.

Case IV.—A man, aged thirty-eight years, came to the German Hospital, New York, on account of dysphagia. Two days after, he died suddenly.

Autopsy.—Luetic aortitis. On the posterior circumference of the arcus aortæ a round aneurysm, 8½ cm. in diameter, bulging out of the aortic wall, partly filled with blood clots, communicated with the aorta through a round hole 2 cm. in diameter. In the wall of this aneurysm there was almost no elastic tissue, it being entirely composed of granulating tissue. In the œsophagus, 10 cm. below the epiglottis, was a round hole 2 cm. in diameter, partly filled with fibrin clots.

Anatomical Diagnosis.—Aneurysm of the wall of the aorta, caused by luetic aortitis. "Rupture into the œsophagus."

This case might be considered in quite a different light—as a gumma of the aortic wall which had ruptured into the aorta, its contents being washed out very slowly by the blood. The way in which it perforated into the œsophagus also rather indicates a gumma, as the perforation was *very* slow, certainly not accomplished by the blood pressure, but by an inflammatory process. The microscopical examination of the aneurysma did not show any endothelial layer at the interior surface but the absence of endothelium. This absence is, of course, natural enough in specimens that have been taken from bodies twenty-four hours or more after death. Therefore I cannot make a study of this question, as my post mortem material was mostly too old for a study of endothelium.

CASE V.—A man, about forty years, went to Europe two years before his death, with the diagnosis of mediastinal gummata and syphilitic stenosis of the left bronchus. (This case was described by Seifert, *Münchener medicinische Wochenschrift*, 1895, No. 31.) The introduction of bougies into the left bronchus brought some alleviation (Seifert). He returned to New York and continued the bougie treatment, then suddenly died of a profuse hæmorrhage of the lungs.

Autopsy.—Gummata of the anterior tracheal wall at the bifurcation, etc., luetic mediastinitis, and aneurysm of the size of a fist perforating into the trachea. A report of this post mortem has been published by the writer in the *Münchener medicinische Wochenschrift*, 1896, No. 15.

It seems to me most likely that the tracheal and mediastinal gummata came first, and that their pressure against the aortic wall had something to do with the development of the aneurysm. But as we found a pronounced luetic aortitis, it would not be right to derive this aneurysm from outward pressure.

CASE VI.—A man about fifty years, received in the German Hospital, New York, on account of pleuritic exudation. He had acquired lues sixteen years before. He developed hæmatothorax and died.

Autopsy.—Large luetic aneurysm of the thoracic aorta perforating into the pleural cavity (reported by a former interne of the German Hospital, Dr. P. Renn, in the *Medical Record*, September 10, 1898).

CASE VII.—A man, aged thirty-nine years, received in the German Hospital, New York, on account of hoarseness and dyspnœa, left vocal cord paralyzed. He died suddenly of spasm of the glottis.

Autopsy.—Thrombosed luetic aneurysm, with compression of the left bronchus, fresh tuberculosis of both lungs. Compression of the bronchus by an aneurysm has led, as shown in a number of published cases, to pulmonary tuberculosis.

CASE VIII.—A man, aged thirty-one years, very large aneurysm of the arcus aortæ, for about three years under my observation, under antiluetic treatment most of the time. The aneurysm reached an enormous size, and finally perforated after an attempt had been made by a surgeon to introduce a spiral wire.

Gelatin injections seemed to have had no influence at all, though they were tried on this patient. In several other cases on which I could perform autopsies, I could never convince myself of any remarkable result from gelatin treatment.

This case showed the total hopelessness of a luetic aneurysm. When I first saw the patient, his aneurysm was, perhaps, the size of two fists. Iodide and mercury were given in large doses and for many months, but the aneurysm grew, and grew in spite of rest in bed and all possible precautions.

CASE IX.—Patient with acute endocarditis after rheumatism, died a few days after admission to the German Hospital, New York, with the diagnosis endocarditis.

Autopsy.—Aneurysmatic bulging out of the left sinus Valsalvæ, partly thrombosed aneurysm, measuring about 5 cm. in diameter, grown fast to the left auricle, with a small perforation leading into it. The wall of the aneurysm showed no more elastic tissue in several large patches.

Anatomical Diagnosis.—Acute microbic aortitis leading to the formation of an aneurysm of the sinus Valsalvæ, which perforated into the left auricle. Endocarditis aortæ.

Osler was one of the first to show the relation between malignant endocarditis and aneurysma.

CASE X.—A patient operated on and the case described by Dr. F. Kammerer. Patient died at the German Hospital, New York. Kammerer diagnosticated an aneurysm of the left subclavian artery, and operated upon the patient, tying the artery 3 cm. from the aorta. The man lived four weeks, and died suddenly of internal hæmorrhage. The autopsy showed that the ligature had cut through the arterial wall, and the bleeding occurred out of the central end of the subclavian artery. In the stump of the artery there was no clotting at all, while the aneurysm was lined with fibrin and filled with clotted blood. The autopsy showed a typical luetic aortitis and arteriitis, and the anamnesis of the patient, who was forty-seven years old, showed that twenty years previously he had acquired lues. (The case is published by F. Kammerer in the *Medical Record*, December 23, 1899).

When this paper was ready for the press, I received a reprint of C. Benda's article on aneurysma (*Ergebnisse d. allg. Pathol.*, etc., Lubarsch and Ostertag, Vol. viii, 1904), which gives a most excellent and thorough literary review, and which is written with great critical understanding. He deals with the morphology, pathogenesis, and ætiology of aneurysms in general; but in his descriptions the aortic aneurysms, naturally, play a large rôle.

Benda summarizes in twelve paragraphs, of which I will mention only a few: "The wall of an aneurysm consists of young cicatricial tissue, which is quite dissimilar to the normal arterial wall, and which has not sufficient power of resistance against the blood pressure, and therefore allows further dilatation. An aneurysma *per dilatationem* of the normal arterial wall does not exist (versus Eppinger and Thoma), the first condition for the development of an aneurysm being rupture or lesion of the arterial wall or both, weakening of the elastic and collagenous tissues, and interrupting of a considerable part of the wall. Such a rupture of parts of the wall will be accomplished by direct or indirect external traumatism, or abnormal rising of the blood pressure in *normal* or pathologically changed blood vessels."

I beg to take exception to this last point, at least if Benda applies this paragraph to the aorta. As I have shown in my first and second papers, I cannot admit of the possibility of a *normal* aorta being over distended by the blood pressure. The normal aorta can withstand many times the possible blood pressure, and, besides, either the aortic valves or the heart would give way much sooner than the aortic wall, according to whether one considers the highest point of the blood pressure to be during the systole or during the beginning of the diastole when the semilunar valves are closed. But in the last case the strain upon the aortic wall cannot be so great, because a part of the increasing pressure comes from the thoracic organs and presses on the side of the adventitia, thus preventing over distention. The blood pressure in extrathoracic arteries can, of course, rise at that moment to a dangerous height, for instance, to the bursting point of small cerebral arteries. But even there, a former lesion of the arterial wall seems to me necessary for the aneurysmal distention.

Paragraph 6 of Benda's: "In arteriosclerosis, or syphilitic sclerosis a slight rigidity of the arterial wall develops through the *destruction of elastic tissue, or through the formation of cicatricial connective tissue,* and leads to ruptures and their consequence, aneurysms." To this I must say, from the standpoint which I have explained in these three papers, the following: the destruction of elastic fibres does not lead to rigidity of the aortic wall. On the contrary, the wall of the aorta, minus elastic fibres, is extremely ductile, so long as the collagenous fibres are unaltered. The rigidity develops later, when the granulation tissue which pervades the irritated aortic wall has organized, and begins to form a tense cicatricial tissue.

I wish to emphasize once more the fact that the collagenous fibres are very ductile, and quite elastic, while up to now they have been considered as having little stretching power. Benda (page 239) calls the collagenous tissues not ductile; he believes that they must tear before the elastic tissues, while I think that I have proved that the elastic fibres are less ductile than the collagenous tissue, although very elastic. The ductile collagenous fibres must not be mistaken for the tendinous fibres, which are used in the organism wherever rigidity and great strength are required, for instance, in the tendons, in ligaments, and in the tendinous annulus cardiacus, the base of the aorta, and the pulmonalis.

54 East Fifty-eighth Street.

THE BEST METHOD OF OPERATING TO EFFECT A RADICAL CURE OF SENILE HYPERTROPHY OF THE PROSTATE GLAND: BASED ON THE STUDY OF 150 RADICAL OPERATIONS.*

By ORVILLE HORWITZ, B. S., M. D.,

PHILADELPHIA,

PROFESSOR OF GENITOURINARY SURGERY, JEFFERSON MEDICAL COLLEGE; SURGEON TO THE PHILADELPHIA HOSPITAL, JEFFERSON MEDICAL COLLEGE HOSPITAL, AND STATE HOSPITAL FOR THE INSANE; CONSULTING SURGEON TO THE JEWISH HOSPITAL.

Notwithstanding the fact that a great deal is still undetermined as to the best methods to be employed to relieve obstructions due to prostatic hypertrophy, and the many important questions relating to that condition which are yet subjects of controversy, there are two points upon which all progressive surgeons are in accord.

One is, that physicians should early learn to recognize those cases where sooner or later the catheter can no longer be relied upon as a means of relief to the sufferer; a class of patients who assuredly will ultimately need surgical interference, and who should be transferred to the surgeon before the so-called break down in catheter life is reached. The second is, that the patient should undergo a radical operation, so as to insure the best results with the least practicable danger, at as early a date as possible; that is, before the usual complications and sequelæ so commonly met with in long standing cases have supervened. While these postulates are admitted by all practical surgeons, they are as a rule far from being appreciated by the physician. It is within the daily experience of all operators that feeble old men, whose health is broken down and who are worn out by pain and suffering, are brought to them begging that a radical operation be performed; on all such persons surgical interference would not be justifiable unless their condition rendered some emergency operation imperative.

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* Read before the New York Academy of Medicine, December, 1902.

The surgical world is of the opinion that the danger to the patient commences as soon as it is necessary to resort to the daily use of the catheter. A Bottini operation or a prostatectomy performed as soon as the symptoms of obstruction begin to appear, with the low mortality which attends such cases, offers the individual a better chance for health, comfort, and prolongation of life than the unfortunate patient who leads a catheter life. It is well known that persons who have to depend on constant catheterism, sooner or later develop complications from the use of this instrument which doom them to a life of suffering and misery. Experience proves that these patients eventually succumb to one or the other sequelæ attendant on this method of treatment. Any one who is called upon to witness the distress experienced during the declining years of these sufferers will, we feel assured, be convinced that as soon as it becomes necessary to place a catheter in the patient's hands, the time has arrived for an operation. We have advocated early operations in both private and hospital practice for a number of years, and so far have not had any reason to regret having done so; on the contrary, we have been greatly gratified by the results obtained. On the other hand, we have frequently had reason to reproach ourselves for being too conservative by delaying surgical intervention.

As soon as the symptoms of obstruction make themselves manifest, the time has arrived either for a "prophylactic," or for a radical operation, which can be undertaken with the least danger and with assured beneficial results. We would urge upon the profession the importance of having a surgeon supervise these cases of prostatic hypertrophy in conference with the attending physician as soon as it is deemed necessary to resort to catheterism. By adhering to this rule, cases that will ultimately require an operation will be early recognized and permanently relieved with comparatively little risk, and thereby much unnecessary suffering will be prevented. If this suggestion were followed, we would soon find that the mortality attendant upon radical operations would drop to a very low percentage, and so-called "palliative" operations, which are in reality but temporary expedients and always unsatisfactory, would seldom be resorted to. All other questions, with exception of the two just mentioned as to the best method of treating prostatic hypertrophy are still unsettled and are the subjects of controversy. The truth of this assertion is best illustrated by a review of the answers elicited to fourteen questions touching the cause and best method to be employed in the treatment of hypertrophy of the prostate gland, propounded by Dr. J. G. Phillips, and addressed to thirty-nine recognized authorities, in the May issue of the *American Journal of Dermatology and Genitourinary Diseases* for 1903.

It is both astonishing and worthy of serious consideration to note that to every question asked, the views of each individual differ very materially. With few exceptions none of the opinions elicited agreed in any particular; all differed radically on the most essential points. This diversity of opinion is probably due to several factors, which may be briefly summarized as follows:

First: It will be observed when studying their reports, that no effort is made by the writers to classify their cases according to age, character of the growth, condition of the patient, or length of time that he has suffered; all these conditions having a direct bearing on the proper method of treatment, the results which follow the operation, as well as the question of mortality.

Second: An experience too limited to enable a surgeon to form a definite opinion as to the value of any one method of treatment, often results in his coming to an erroneous conclusion.

We frequently read of the Bottini operation being condemned by an individual whose experience is limited to a few operations, possibly in cases the majority of which may not have been suitable for such an operation; it is then condemned and the method of treatment is heralded as unsatisfactory and dangerous.

It will be found that a certain procedure is advocated, when performing a prostatectomy, based on the report of a few successful cases. Such expressions of opinion are valueless, as reliable statistics can only be obtained by the study of the results obtained in a large number of cases. Surgeons whose experience with prostatic surgery is limited, follow methods of operating that may be suggested by various authorities, and having obtained disastrous results immediately join the ranks of those who condemn operative procedure in cases of the kind.

Third: It must not be forgotten that, in the present day, surgery is divided into many special branches; hence the general surgeon does not have an opportunity to see and operate on many prostatic cases. His experience is comparatively limited; consequently his views do not carry so much weight; nor is his skill in operating so great, and the mortality, too, must necessarily be higher than it is with those who are constantly dealing with cases of the kind.

Another cause for the diversity of opinion among surgeons, regarding the proper method of dealing with prostatic cases, is largely due to the fact that an attempt is made to apply the same principle of treatment to all classes of cases, irrespective of age, condition of the prostate gland, complications or sequelæ that may exist. The fact is that every case is a law unto itself. The method of treatment to be adopted will depend on taking into consideration all the points here referred to; a careful consideration of which will usually lead the experienced surgeon to advise his patient as to the safest and most satisfactory method of treatment to be adopted. In a paper published in the *Philadelphia Medical Journal,* in 1901, we attempted to demonstrate that every case of prostatic enlargement must be treated on its own merits; that no routine method of procedure was applicable to any class. Some merely require daily catheterism, with local and constitutional treatment; others need some one of the so-called palliative operations; while a large number can only be cured by a radical operation. Since the publication of the paper referred to, we have had an unusual opportunity to observe and study cases of the kind, and an extended experience has only served to convince us of the correctness of the views expressed at that time.

Of all the radical methods that have been suggested for dealing with enlargement of the prostate gland, but two have stood the test of experience; they are, prostatotomy by means of the galvano-cautery—the so-called Bottini operation—and prostatectomy.

Notwithstanding the facts that the Bottini operation has been performed many hundred times by operators in all parts of the world, and that the accumulated evidence is universally in its favor, it will be found, by reference to articles in many of the journals and to some of the standard textbooks on genitourinary surgery in this country, that there is quite a number of writers who consider the operation as " unsurgical," " an operation performed in the dark," " unsatisfactory," and " dangerous." These authors assert that the relief afforded is but " temporary." A few condemn the operation with faint praise, while others consider that it is still " on trial." Some who state that they have had no experience with this method of treatment, advise against its employment on apparently no other ground than prejudice, and are satisfied to shut their eyes to the brilliant results that have been achieved by many of their confrères. The following summary will serve to show the varying opinions of thirty-nine surgeons on this subject, in answer to fourteen questions submitted to them by Dr. J. G. Phillips (*loc. cit.*):

A reference to this résumé shows that seventeen of the gentlemen referred to had never performed the operation, and consequently did not feel justified in expressing an opinion. One had performed the operation four times with negative results, but did not express his views as to the value of the method as a surgical procedure. One had resorted to the Bottini operation three times with one death, with no permanent relief to the others, and he stated very candidly, showing a true scientific spirit, that he " *now knows that none of them were suitable cases for the operation performed.*"

Four of the gentlemen who responded, while acknowledging that they had never performed the operation, placed themselves on record, without ever having had any experience, as being adverse to the employment of the operation in any case. Such positive statements do not appear to us to have the proper spirit with which the progressive surgeon should approach such an interesting and important problem; especially when we reflect that the determining of the value of such a weighty question is fraught with so much importance to the welfare of the afflicted. The attitude of these gentlemen is to be regretted, when it is found that surgeons in all parts of the world, not only advocate this method of treatment in suitable cases, but have shown by statistics that relief may be afforded in 84.3 per cent. of cases so treated, the mortality being but 5.7 per cent.

One individual reports four operations with negative results, but does not state either his views on the subject or whether or not the cases were suitable for the operation.

In spite of the immense mass of testimony in favor of the process, one eminent authority on genitourinary surgery states that he regards the procedure as unsurgical. He does not give the number of times that he has performed the operation, but makes the remarkable statement that in his hands " it has given a larger mortality than prostatectomy." On consulting his textbook, it is found that he places the mortality of prostatectomy between 15 and 18 per cent. In answer to Dr. Phillips's question regarding his experience with prostatectomy, he states that he has performed suprapubic prostatectomy over one hundred times, and perineal prostatectomy somewhat under a hundred times; and that while his mortality was formerly larger, for the last year it had been below 5 per cent.; *without stating the number of operations performed during that period.* This leaves the question of the mortality of the

Bottini method from his operations to be surmised. As will be shown, the mortality of the galvanocautery prostatotomy, from all sources, both by experienced and inexperienced operators, is on an average but 5.7 per cent. In the hands of skilled operators it is less than 4 per cent.

Twelve of the surgeons expressed themselves as favorable to the operation; all, however, agreed that it was indicated only when certain configurations of the prostate gland existed. In order to show what has been accomplished by the operation under discussion, the following résumé, compiled by us in 1901, is here given.

Our tabulated work shows that 886 operations were performed by 48 operators; of these 84.3 per cent. were improved or cured, ten per cent. were unimproved, the mortality being five and seven tenths per cent. Little need be added in defence of an operation which seems to afford so much benefit with so little risk and which is applicable to such a large number of cases. When we consider the number of surgeons who are apparently adverse to this operation from evidently mere prejudice and who take no account of the brilliant results which have been achieved by so many different operators in all parts of the world, the aphorism of Guizot becomes manifest: "A great deal is required before the most certain and the most salutary truths get their places and their rights in the minds and communities of men."

(*To be continued.*)

THE INDICATIONS FOR AND THE TECHNIQUE OF PROSTATECTOMY.*

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Present Status of Surgery of the Prostate.—The prostate may be said to have assumed at last an established position as a legitimate field for operative surgery. This has not been attained without opposition. The profession in general is even now wofully negligent of its duty in obstructive disease of the prostate. The organ has been a *noli me tangere* for so long that it is by no means remarkable that medical men should be slow to disabuse themselves of the fatalism which has hitherto prevailed in their attitude toward its diseases. It will be some years before the general practitioner and the laity will be able to free themselves of the notion that prostatic enlargement is an almost necessary concomitant of old age, and an affliction which must be borne with the best grace possible, and with such discomfort or misery, according to circumstances, as may be derived from the use of the catheter. Only a few months ago I heard a distinguished professor of surgery in one of our colleges quote, as a convincing argument in favor of routine catheterism, the case of an old man, aged seventy years, who had used a catheter for ten years. Scarcely a layman of advanced age can be found who does not believe that prostatic disease is something which is not only incidental to, but well nigh inseparable from, advancing years. If he has chanced to hear of the radical treatment of prostatic disease, he is imbued with the notion that operation is a most desperate recourse, and only to be employed as a last resource. Should he consult his family physician upon this point his fallacious ideas of the subject will most likely be confirmed. As I have repeatedly urged in my various papers upon the subject, the surgery of the prostate will never have a fair opportunity for development until it is distinctly understood that prostatic enlargement is not a necessary concomitant of senility, and that where it exists it is due to senility *per se*, but to slowly operating conditions which do not result in a sufficient degree of obstruction of the vesical outlet to produce symptoms in a majority of the cases until an advanced period of life has been reached. The symptomatology of prostatic enlargement is usually some years behind its pathology. The clinical history of the disease, as usually gleaned, is inaccurate, the practitioner taking as his starting point the appearance of the first symptoms which are sufficiently severe to impel the patient to seek relief. Not infrequently an attack of retention is responsible for the patient's seeking the aid of his physician. The merest tyro should understand that prostatic obstruction which is sufficiently marked to give rise to retention of urine must of necessity have been slowly developing for years. The retention is due, not to the prostatic overgrowth *per se*, but to the overgrowth plus spasm, congestion, or actual inflammation. The slowly growing prostatic overgrowth plays the preparatory, and the plus conditions the active, rôle in retention.

Both profession and laity should remember that prostatic obstruction, once begun, almost inevitably progresses to the point where it produces residual urine and often complete retention.

Catheter life lasts on the average only about five years. Infection of the bladder, ureter, and kidney usually occurs sooner or later and destroys life after a variable period. Even where infection does not occur, it should be understood that the backward pressure upon the kidney invariably produces degenerative changes in that organ which lessen the patient's power of resistance and invite a fatal result in any intercurrent disease, especially if it is of an infectious character. These changes compound the dangers of late operations.

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* Read at the Memphis meeting of the Mississippi Valley Medical Association, October 9, 1903.

The foregoing points being established, the necessity of surgical intervention is definitely proved, and the only point for consideration is the time at which the operation should be done. If we are to give the *prostatique* the same advantages that are enjoyed by individuals suffering with other forms of surgical disease which are amenable to operative treatment, it is obvious that operation should be performed immediately upon the discovery of the prostatic enlargement, due deference being paid to possible congestive and inflammatory affections of the organ which are amenable to local and general treatment of a non-radical character. I make this qualification with the proviso that it should be understood that obstinate inflammatory enlargement and congestive hyperplasia of the prostate at about middle life, or beyond it, are liable to result in true prostatic enlargement later on.

The earlier the operation is performed, the fewer obstacles will be encountered by the surgeon. Many cases in which, if the operation be performed early, enucleation of the adenomatous growths may be readily accomplished, will, if allowed to progress, undergo changes that will render the operation very difficult. I am inclined to believe that, in a majority of cases, the pathology is distinctly glandular at the outset, beginning as adenoma. These adenomatous growths, by the mere mechanical disturbance which they produce, excite irritation and congestion; proliferation of connective tissue occurs in an effort on the part of Nature to encyst these growths. The stroma of the glandular tissue participates in the connective tissue hyperplasia. Later on adenoma is replaced by adenofibroma. Later still, adenofibroma is replaced by a fibroid degeneration. This may be more or less circumscribed in certain areas, or diffuse. It will be understood, of course, that certain cases do not conform to the course I have outlined, fatty degeneration of the prostate and atrophy associated with general fatty or atheromatous degeneration being not infrequently seen.

I take the liberty of presenting a series of specimens that illustrate clearly what I believe to be the evolution of prostatic overgrowth. One of these specimens is that of a prostatic enlargement comprising fifteen separate tumors and complicated by a vesical calculus, which was hidden beneath a large, flat, sessile, posterior median hypertrophy. The patient in this instance was relatively young, being but fifty-nine years of age, and while the operation was somewhat tedious, on account of the large number of tumors, the latter were shelled out with comparative ease, and the patient in this case was out of the hospital on the fourteenth day. One can readily imagine the difficulties which would have been presented in this particular case had the patient been operated on some years later.

It should be unnecessary to emphasize the vast difference in the danger and mortality of operations performed at an early period, before infective bladder, ureteral, and renal changes have occurred, and those late operations in which complications have arisen and the operation is performed in a septic field. I state unhesitatingly, as my opinion, that early operations upon the prostate in otherwise healthy subjects, in whom kidney, ureter, and bladder are sound, are, in competent hands, not more dangerous than interval operations for appendicitis. They are certainly no more serious than an ordinary perineal urethrotomy, and by no means compare in severity with the lateral operation for stone. The statistics of prostatic surgery thus far gleaned are almost valueless, for the reason that the subjects operated on have, in the majority of instances, been submitted to the operation as a *dernier ressort*. I reiterate here the plea that I have so frequently made for a more careful study and supervision of the urinary function in the male, the early diagnosis of prostatic hypertrophy, and immediate operation in the majority of cases. If this plan is followed, prostatectomy will eventually be placed upon a plane somewhat similar to that occupied by ovariotomy, an operation which, when it was performed as a last resort, was attended by tremendous fatality. Nowadays, when the mere recognition of an ovarian tumor is universally accepted as an indication for immediate operation, the mortality is extremely low.

Indications for Operation and Selection of Cases.—I was once asked what, in my opinion, were the indications for operation in appendicitis. I replied: "There is but one indication in my judgment, and that is the discovery of an appendicitis." I make the same assertion in regard to the prostate, with the proviso that the enlargement be discovered at an early period, before complications have arisen. As this discovery is rarely made until more or less severe secondary changes have developed, some qualification is obviously demanded. It is necessary to consider several factors in the conditions presented by different patients, the importance of the age of the patient being secondary only to the condition of the bladder and kidney, and especially the latter.

1. Patients at or not far beyond middle life, with sound bladder and kidney. These should be operated on, as a rule, immediately the diagnosis is made.

2. Patients of the foregoing class in whom slight or moderate pathological changes of the bladder, ureter, and kidney have occurred. These should usually be operated on.

3. Patients at about the middle period of life, in whom serious renal disease exists. These patients should be treated palliatively, either by the catheter or simple suprapubic drainage.

4. Patients from fifty-five to sixty-five years of age, in whom the bladder and kidneys are either sound or not severely diseased. Here operation is indicated. In this class of patients, where serious bladder and kidney disease exists, operation is inadvisable.

5. Patients from sixty-five to seventy years of age. In the exceptional instances where the patient has used the catheter for some years, and has thereby demonstrated tolerance for the instrument, the bladder having remained healthy and the kidneys functionating perfectly, there is a question in my mind as to whether operation should be performed. If vesical complications have arisen and the kidneys are in fair condition, or if catheter life has been recently begun, and in all cases in which catheterism is attended by discomfort, operation should be advised. When serious complications of the kidney have arisen, palliation only should be considered. In most cases of patients from sixty-five to seventy years of age, the mortality rate is not high unless the kidney is in serious condition. Where the patients have tolerated catheter life for a long time without the occurrence of complications, the question of operation should be determined by the patient's desire to free himself from catheter bondage. It should be remembered, however, that in many of these cases the bladder muscle has so far lost its functional power that the patient is likely to be in a very much worse condition after the operation than that which prevailed during his catheter life. In cases in which there are serious complications palliative operations are necessary irrespective of the patient's age. In some cases the kidneys are so seriously disorganized that even palliative operations are likely to prove disastrous. To use an Irish bull, "The *prostatique* is often killed by curing him," i. e., by the relief of the obstruction which was the primary cause of his various genitourinary lesions. Nephritis *ex vacuo* and ether nephritis come into play here.

6. Patients above seventy years of age. In patients of advanced years in whom the use of the catheter is not attended with discomfort and the patient remains in a satisfactory condition generally and locally, there is a question in my mind as to whether the operation should be performed save in exceptional instances. In cases of advanced age in which catheterism is not performed with facility or fails to make the patient comfortable, radical operation should be considered. In many instances, however, it is better to perform a palliative operation for suprapubic drainage and reserve prostatectomy for later performance, on account of serious complications. In some instances permanent suprapubic drainage is, in my opinion, the only operation that is permissible. My conservatism in regard to radical operations in patients of very advanced age is inspired, not only by what I believe to be the best interests of the patient, but also by the best interests of the surgeon. Every fatality resulting from prostatectomy counts for more on the part of the laity and the general practitioner than a dozen patients successfully operated on. The lay and professional bias here is very much stronger and less rational than in most fields of operative surgery.

Election of Operation.—There is a tendency to routinism on the part of enthusiastic workers in the field of prostatic surgery. In some instances the routine operations are performed by men who exhibit the most careful discrimination in other surgical fields. The perineal operation is the operation of election where it is practicable. That it is practicable in all cases I do not believe. I have met with cases in which I believe no man living could possibly have operated successfully by the perineal route, combined operation having been necessary.

The series of specimens which I present herewith illustrates very plainly the vast difference which must necessarily exist in cases of prostatectomy in respect to the ease of operation and the necessity for modification of methods. It is well to begin by the perineal route and to add the suprapubic incision where necessary. Perineal incision not only does not complicate the operation, but facilitates drainage, which can be performed by the through and through method, probably the best thus far devised.

It is the fashion of some surgeons to make, as a matter of routine, a prolonged cystoscopic exploration and diagnosis of prostatic disease. This is often done under anæsthesia. I assert unhesitatingly my belief that in the majority of cases cystoscopy is not only useless, but dangerous. The danger of any subsequent operative procedure compounds rapidly with every preliminary exploration, and especially if anæsthesia is employed. In most instances the only result obtained is the demonstration of cystoscopic expertness on the part of the surgeon, and the gratification of his curiosity as to the appearance of tumors which, if he understands his business, he well knows he must remove by operation sooner or later. I have met with a number of cases in which I am confident the life of the patient was destroyed by diagnostic over enthusiasm in the direction mentioned, much to the discredit of one of our most valuable diagnostic resources, the cystoscope.

Technique.—The patient should be prepared for operation by a preliminary urinary antisepsis, by means of both internal medication and vesical irrigations. Rest in bed for a few days is usually advisable, but in elderly patients should be employed with great circumspection, as they become debilitated very rapidly under the confinement. Flushing the kidney by means of liberal quantities of pure spring water is, of course, essential. Care should be taken in the matter of diet. These patients, other things being equal, should receive a liberal amount of food of nourishing quality, due deference being paid to the condition of the stomach with reference to its capacity for digestion of solid foods. It is well to ascertain the individual peculiarities of the patient in regard to his dietary, and after determining the kind of food which best agrees, give him plenty of it.

As is true of all operations involving chronic obstruction and infection of the genitourinary tract, chloroform is the anæsthetic to be used. Ether, in my opinion, should be given only in very exceptional circumstances, which it is hardly necessary to discuss here.

The patient is placed in the usual lithotomy position, and after the introduction of a sound or grooved staff. The thighs are flexed strongly upon the abdomen. In this position the prostate is brought much nearer the surface of the perinæum than in any other. After the usually preliminary asepsis, an incision is made in the perinæum, from an inch and a half to two inches in length, varying with the conformation of the perinæum. The incision should be made well back toward the anus, this position facilitating the subsequent work of enucleation. The urethra is opened upon the staff, and the staff withdrawn. The prostatic tractor which I have devised is now introduced into the bladder closed. It is then opened, and the handle given to an assistant. With this tractor it is possible to bring the prostate down within reach with greater ease than with any instrument with which I am familiar. The narrow wire shank of the instrument does not obstruct the work which is to be done by the finger, as is the case with some instruments which have been devised for prostatic traction. Where a hard fibrous prostate is to be dealt with, whether this is determined prior to or after beginning the operation, it is necessary to have more room for work. Under these circumstances I make a Y-shaped incision in the perinæum. This incision had until recently been my routine practice. The long arm of the Y extends upward toward the scrotum, to a point which varies with the length of the perinæum and the quantity of superimposed fat. Instead of the fork of the Y, a curvilinear incision may sometimes be made with advantage. The preliminary incision should include all the tissues down to the urethra for their entire extent. These flaps should now be dissected up and laid back upon the buttocks, the corners of the triangular flaps being stitched well up on the buttocks by a retention suture of silk. The rectum and anus being well drawn down by a blunt retractor, the incision described will be found to give all the room which it is possible to obtain. The wound made by this incision is during the operation formidable enough in appearance, but when the flaps are replaced and stitched it differs from the ordinary median incision for perineal urethrotomy only in the existence of the arms of the Y. Incisions in the perinæum which do not give the greatest possible amount of room seem absurd to me, for the reason that the important parts are well exposed only by the elevation of the flaps, which are composed only of skin and fat. I have no hesitancy in making as large incisions through these tissues as are necessary to facilitate the work. By blunt dissection, chiefly with the finger, the perinæum is opened from above downward, so as to expose the membranous urethra and the capsule of the prostate. An incision is now made in the membranous urethra, the sound withdrawn, and the prostatic tractor, introduced into the bladder. When the Y incision is made, it is a matter of indifference, in my experience, as to whether the capsule of the prostate is opened from the urethral side or from the perinæum, in introducing the finger for the purpose of enucleation. In some instances the former, and in others the latter, method has seemed to afford greater facility of enucleation. If the median incision is employed, it is better to enter the capsule from the urethral side. Where the prostatic capsule is opened externally to the urethra, it is my usual custom to open it first upon one side and then upon the other. In some instances I have operated successfully by opening the capsule from one side and then traversing the urethra and opening the side opposite from the urethral surface. The capsule having been opened by a pair of sharp-pointed scissors, which are plunged into the tissue and then opened, tearing it sufficiently to admit of the introduction of the finger, enucleation is proceeded with. I avoid, wherever it is possible, any cutting or tearing with instruments after the prostatic capsule has been opened. In early cases such instrumental work is usually unnecessary, the finger being all-sufficient. The lateral lobes having been removed, any median growth within the bladder is delivered and removed.

It is sometimes possible to remove circumscribed tumors without opening the prostatic urethra, the work of enucleation being, under these circumstances, entirely intracapsular. Even in cases in which the prostatic urethra is invaded, the greater portion of the urethra is often left behind. The portion left is one or other lateral wall, and the roof of the canal. In extensive operations the floor is usually removed. Whenever enucleation without removal of the prostatic urethra is possible, it should be performed. The importance of this point with reference to the conservation of the sexual function in relatively young subjects is self evident. The assertion is made, by some surgeons of prominence, that in their method of operating the entire prostatic urethra is removed, the operation being nevertheless followed by a restoration of the continuity of the urinary way, and normal micturition. I am of opinion that those who put forth such claims have a very hazy idea of what is actually done during their operations. I believe that a strip of intact mucous membrane is absolutely necessary to guarantee the patency of the vesical outlet. That the continuity of the canal between the relatively narrow membranous urethra and the prostatovesical orifice can be maintained after complete removal of the prostate and the corresponding portion of the urethra, is extremely doubtful, judging by the results of extensive trauma of other portions of the canal. In operations upon the urethra it has always been my aim to preserve the continuity of the canal by saving a strip of the urethral wall, and especially of the mucous membrane. In some cases it is necessary on account of extreme fibrosis to remove the prostate by *morcellement* with cutting forceps.

It has been my experience that impotency rarely follows prostatectomy. This has not been the experience of some others. Where the patient's virility is not destroyed by advanced age prior to operation, impotency does not result, as a rule. In the younger class of patients, enucleation without extensive removal of the urethra, ducts, or extensive traumatism of the capsule, is often possible, and under such circumstances the untoward results under consideration should not occur. Where such a result apparently occurs, the condition is usually psychic.

The adventitious tissue of the prostate having been removed, the bladder is carefully explored with the finger for stone, the prostatic tractor withdrawn and replaced by a good sized perineal drain, around which strips of iodoform gauze are loosely packed. The external wound is sutured with catgut or silkworm gut and the drainage tube fastened *in situ* with a strand of heavy silkworm gut passed through the tube and the edges of the perinæum. The ordinary dressings for perineal section, with a T bandage over all, are now applied.

The tube is withdrawn in three or four days, or more, according to the degree of infection of the bladder and the condition of the urine. It is nothing unusual for the urine to pass *per vias naturales* at the end of from five or eight days. Incontinence of urine, in spite of the beautiful results reported by some of my *confrères*, may be expected to occur occasionally. It must be remembered, moreover, that no method of operation yet devised has subverted the pathology of prostatic disease to the desires of the surgeon. No matter what method of operation may be performed in an old man, an old man's bladder and kidneys are left behind, and the degree of perfection with which they carry on their functions is determined by conditions over which the surgeon has absolutely no control. When I read large series of cases of prostatectomy without complications, failures, or untoward results, I feel like congratulating the operator upon his ability to perform miracles, and convert by his routine operation, whatever it may be, the bladder of an old man into that of a young one, and to guard against accidents which are bound to occur in every field of operative surgery. The spring from the "touch-me-not" theory of prostatic disease to the assertion that operation as a matter of routine is always safe and invariably successful, is too mighty a bound for the imagination.

The surgeon who approaches the operation of prostatectomy with the idea that the technique is now so well grounded that accidents, complications, and untoward results cannot occur, is bound to be disappointed. Prostatic surgery will gain absolutely nothing but harm from over enthusiasm. I cannot believe that my own cases are the only ones in which disappointments and disagreeable results occasionally occur, and I am free to say that in my experience prostatectomy, like all other fields of surgical endeavor, is not always smooth sailing. The tendency to reporting only ideal cases or, what is worse, omitting the disagreeable features of cases and reporting them as ideal, is far more general in the profession than it should be, and can only work injury to surgical science. After discounting extravagances of statement due to over enthusiasm, the fact still remains that prostatectomy is, under favorable conditions, safe and effective in radically curing chronic obstructive prostatic disease and its results.

APPENDICITIS ASSOCIATED WITH DISEASE OF THE TUBES AND OVARIES.

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Among the many interesting facts in connection with the history of the development of our knowledge regarding the pathology of appendicitis, none is more interesting than the importance which it has assumed from a gynæcological standpoint. One need only refer to the most recent textbooks on diseases of women to be convinced that gynæcologists have come to realize fully the significance of what may be called the pelvic side of this affection. Long before appendicitis was recognized as a surgical disease ovariotomists were familiar with appendicular adhesions, although their significance was not appreciated. Those of us who witnessed and performed abdominal operations in the preaseptic days will recall how frequently the appendix was detached from ovarian cysts or diseased annexa, but was left *in situ;* and doubtless not a few of our fatal cases were due to our failure to remove the infected part. The subject of appendicitis complicating annexal lesions is now so familiar, and the current literature is so extensive, that we wonder that attention was not directed to it long before. To my mind, the work which gynæcologists have done in this field alone is a sufficient answer to the criticism that they have invaded to an unwarranted degree the territory of the general surgeon.

While their experience with the acute suppurative lesions as they occur in the male are naturally limited (since 60 per cent. of all cases of appendicitis occur in men), they are certainly in a position to discuss intelligently the subacute variety that is usually found in connection with intrapelvic troubles.

There is no question that the attention of the general surgeon is so concentrated upon the appendix that he is apt to forget its intimate relations to the right tube and ovary. As an illustration, I recently had occasion to examine two women whose appendices had been removed through the lateral incision, one six months before, for acute suppuration, the other less than a year before, for supposed tuberculosis. The former patient now has a large mass at the right horn of the uterus—undoubtedly a diseased tube and ovary—and the other a condition of the right annexa which is possibly tuberculous. The history warrants the inference that these conditions may have existed at the time of operation. I mention these facts, not in a critical spirit, but simply to show that when the gynæcologist operates for appendicitis in women his training naturally leads him to investigate the pelvis as well as the abdomen—always excepting those acute cases in which such an investigation would be fraught with too great risk to the patient.

Before discussing the question of pathology, a word as to the normal anatomical relations between the appendix and the annexa. These, of course, must vary considerably according to the length and situation of the organ and its mesentery. An appendix, the tip of which is normally in contact with the right tube or ovary (or exceptionally the left annexa), would be more likely to be directly involved in pathological conditions originating within the pelvis. In a recent case at Bellevue I found a short appendix in close relation with the right tube, the contact being apparently due to a peculiar disposition of the mesoappendix. The existence of a more or less constant fold of peritonæum, described by Clado under the term "appendiculoovarian ligament," has been denied by other observers. Barnsky (*Rev. de gyn. et de chir. abdom.,* Nos. 5 and 6, 1898) states that he failed to find it in 127 cadavers. Fürth (*Monatsschrift für Geb. u. Gyn.,* Band IX, Heft 2) thinks that it is the exception, rather than the rule. Whether a true ligament exists or not, few abdominal surgeons have failed to note the direct relation which can often be traced between the mesoovarium and mesoappendix, and the fact that their blood and lymph vessels undoubtedly anastomose. Indeed, Sonnenburg (*Deutscher med. Wochenschrift,* No. 40, 1897) believes that the reason why comparatively fewer cases of gangrenous appendix occur in the female is because of the richer blood supply which the organ receives through the *ligamentum appendiculoovaricum*.

While the experience of most pathologists and abdominal surgeons tends to support the theory that in cases of associated appendicular and annexal disease the primary lesion is intrapelvic, our knowledge of the secondary infection of ovarian cysts from adherent appendices proves that the latter may be the initial site. Fraenkel (*Centralblatt für Gynäkologie*, No. 40, 1901) believes that infection may be conveyed along two routes, viz.: 1. Intraperitoneal *(a)* through the blood and lymph vessels of the *ligamentum appendiculoovaricum*, or *(b)* by direct contact of an abnormally long appendix with the right tube or ovary; or when the annexa are adherent at the pelvic brim; 2. Extraperitoneal, that is, between the folds of the mesocæcum, or when the cæcum and appendix are developed extraperitoneally. Zweifel (*Monatsschrift für Geb. u. Gyn.*, Band IX, Heft 2) questions if a purulent salpingitis can be due to the emigration of streptococci or colon bacilli from an adherent suppurating appendix without actual rupture of the abscess into the tube, because experiments on animals have shown that these microorganisms do not cause suppuration when brought into contact with the healthy tubal mucosa. This inference seems hardly warranted by facts observed at the operating table.[1]

It is difficult to obtain exact statistics with regard to the frequency of appendicitis complicating tubal and ovarian disease. If we limit the cases to those of actual suppuration of the appendix, Martin's and Dührssen's figures (5 and 3 per cent., respectively) may be accepted; but as I include in this paper all cases in which the organ is thickened and adherent (as in ordinary non-suppurating interval cases), I am more inclined to accept Ochsner's high percentage, viz., 30. At least, this has been our experience in the third gynæcological division at Bellevue. Peterson (*American Gynæcology*, August, 1902), noting carefully the condition of the appendix in 53 abdominal sections, found subacute inflammation or thickening in over 30 per cent., and adhesions in 20 per cent. The appendix was involved in 30 per cent. of the cases of pus tubes and ovaries.

Without discussing further the question as to whether in a given case it is always possible to trace the pathological sequence, this fact is generally admitted, that an appendix which is adherent to a diseased tube and ovary has usually undergone such anatomical changes that we may regard it as practically in the same condition as the extrapelvic appendix after repeated attacks of inflammation. This important difference should be noted, however, that when the tip of the appendix is adherent and thickened, the inflammatory process involves the serous and muscular layers more often than the mucosa, that is, the infection extends from *without* inwards. Hence, the prognosis is more favorable than in those cases in which the mucosa is the primary focus of infection, as in surgical appendicitis. I have never found an appendicular abscess that actually communicated with a pus tube or ovary; which leads me to infer that infection transmitted from the appendix must be through the wall of the latter, or else along the lymphatics in the adhesions, as suggested by Delagénière (*La Gynécologie*, No. 12, 1900). I believe that the appendicular lesions are always secondary, being due to the obstruction of the circulation by adhesions. Doubtless the presence of adhesions is, in the majority of cases, proof of a former salpingitis. Many other interesting pathological questions present themselves—especially the transmission of tuberculosis from an adherent tuberculous appendix to the mucosa of a previously normal tube, cases of which have been reported, but the consideration of these would extend unduly what is intended to be a brief clinical paper.

It is a matter of common experience that the symptoms which warrant us in making the diagnosis of an appendicular complication are seldom clear and definite. How often do we find this condition on opening the abdomen, and on the other hand, how frequently do we meet with a normal appendix where we had every reason to expect that it would be at least adherent within the pelvis! In my experience, this error has occurred most often in the case of neurotic subjects, in whom the history, tenderness, and resistance (but not rigidity) on palpation, apparent thickening (even under anæsthesia), all seem to confirm the diagnosis. There is no question that in a certain class of women, with and without disease of the right ovary, there is a tender point over the appendix, quite as well marked as those over the ovaries and spine.

On the other hand, there should seldom be any hesitation about making a positive diagnosis in those acute cases in which, in connection with preexisting disease of the right annexa, the patient has a febrile attack with the usual intestinal symptoms, pain, tenderness, and resistance between McBurney's point and the pelvic brim, and an induration develops which can be traced downward until it merges with the old mass in the cul de sac, or at the right uterine cornu. But even here, error might occur. I recall a case in which, on the fifth day post partum, the classical symptoms of perforative peritonitis were present, yet a lateral incision showed that the condition was an ovarian abscess high above the pelvic brim.

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[1] Since writing this I have operated successfully in a bad case of perforated appendix complicated with acute streptococcus infecting the right tube and ovary in a girl, aet. thirteen years, who has never menstruated. There is no question as to the sequence.

Da Costa (*Am. Jour. of the Med. Sci.*, Vol. CXXII, 1901, p. 653) states that a leucocyte count gives no aid in deciding as to the origin of the suppuration. This has been our experience in mixed cases at Bellevue. In the ordinary subacute, or recurrent, form of appendicitis, which is most common, the history sometimes furnishes a clue. The location of the pain (radiating from a point below the classical site down into the groin); the fact of repeated attacks of local peritonitis (extrapelvic), especially just before or during the menstrual flow; and above all the peculiar localized, colicky pains which we usually associate with intestinal adhesions—when these are present, the diagnosis is reasonably clear. Personally I would lay considerable stress on the latter pains, especially if confined to the right iliac region, since if intestine is adherent, it is very apt to be the appendix. Emphasis has also been placed upon the persistence of marked gastrointestinal disturbances, though these might be due quite as often to intrapelvic omental adhesions.

I have found it unsafe to depend upon the predominance of a certain type of pain in connection with the differential diagnosis between appendicitis and right ovarian or tubal trouble. This is still more difficult when the two conditions are associated. Because the pain is referred entirely to the pelvis we cannot exclude an appendicular complication, and, on the other hand, the fact that it is most marked in the iliac region does not prove that the original trouble is not intrapelvic, since it may be due to an imprisoned loop of small intestine. This is a matter of common observation in cases of secondary laparotomy, when the appendix has been previously removed, with or without the right annexa.

An interesting point might be raised in connection, not only with the differential diagnosis of acute perforative appendicitis and primary rupture of an ectopic sac or tubal abortion, but also with cases in which the diseased appendix is fused with the exudate surrounding an hæmatocele. I have no doubt that the colicky pains which are supposed to be indicative of an impending secondary rupture are sometimes really referable to the intestinal adhesion.

The symptoms of subacute appendicitis, or adhesion of the organ, accompanying annexal disease and pelvic peritonitis are seldom pathognomonic. The complication is inferred mainly from the history of former pelvic inflammation and the fresh symptoms referable to the appendix.

The physical examination may throw but little light on the diagnosis, especially when the annexal disease is unilateral, and the affected tube and ovary are adherent at the pelvic brim. Exceptionally, the thickened appendix or the exudate surrounding it may be traced upward into the iliac region, but if the elongated organ lies deeply behind the cæcum, its tip being adherent to a mass in the cul de sac, it is impossible to palpate it. In fact, my efforts to feel a normal, or slightly thickened appendix have not been very successful. In an acute case, with an abscess or exudate which is continuous with the intrapelvic mass, the case is usually clear, although after evacuating the pus through a vaginal incision, the diagnosis cannot be confirmed, except by a subsequent abdominal section. As before stated, the most doubtful cases are those in which, with pain and tenderness in the appendicular region (even with a history of former localized peritonitis), abdominal and pelvic palpation reveal nothing but a tender, prolapsed ovary or thickened tube. Examination under ether may be negative, yet an exploratory section may explain the symptoms satisfactorily by showing a long, thickened appendix adherent to the annexa. In neurotic subjects, as before stated, there is danger of misinterpreting the apparently severe and persistent pains, unless the patient is kept under observation for some time.

In a case of unilateral disease of the annexa (with an absence of a gonorrhœal or septic history), in which the appendicular symptoms precede the intrapelvic, it may be inferred that the infection originated in the appendix, especially if the induration is mostly above the pelvic brim. Other conditions may give rise to symptoms which closely resemble those of appendicitis, while the presence of continuous intrapelvic and extrapelvic indurations seems to confirm the diagnosis. Among these may be mentioned fæcal impaction, colitis, malignant disease, tuberculous nodules, or even an irregular typhoid—any one of which might be associated with tuboovarian disease. I have already referred to the occurrence of tuberculosis. I need not enter into the question of differential diagnosis, except to add the caution that the only certain way to avoid errors in a doubtful case is to keep the patient under observation for a while before resorting to an exploratory section.

The question of treatment is one which especially interests us as surgeons. It is unnecessary to go over ground which has been so thoroughly covered, by discussing the indications for and against surgical intervention in acute cases of appendicitis. It may be assumed that in the presence of symptoms pointing to possible, or undoubted, perforation, we shall promptly resort to the lateral incision without regard to the presence of a mass in the pelvis. If a large abscess is opened, it may seem wiser to make a counter-opening in the loin; but, unless this procedure should involve too great a risk of separating the protecting wall of exudate and entering the general peritoneal cavity, it would appear to be good surgery to pass the finger down into the pelvis and to establish drainage *per vaginam*, as in the case of an ordinary high pelvic abscess, with the view of evacuating the contents of an ovarian or tubal sac at the same time. No fixed rule can be laid down, as the judgment of the operator must guide him. I should prefer an incision parallel with the rectus if I expected to pursue this course, since it can be carried downward in such a direction as to give easier access to the annexa.

The following hospital case illustrates the importance of examining the pelvis when practicable in every operation for appendicitis:

A young nullipara came to my office complaining of intense pain over the appendicular region, with a history of two previous attacks. Temperature 102° F. and pulse accelerated. Extreme tenderness, general, as well as local, and rigidity, so that palpation was impossible. Constipation, moderate tympanites, but no vomiting. There was also an obscure history of gonorrhœal infection, and both tubes were enlarged and tender.

I made an incision along the outer edge of the right rectus and removed a swollen appendix, the tip of which was adherent within the pelvis. Enlarging the incision sufficiently to inspect the annexa, I found the tubes distended, intensely congested and adherent. Pus exuded from their distal ends. Ovaries apparently normal, but covered with fresh exudate. The intestines were generally injected and several drachms of serum were sponged out from the cul de sac. One tube was removed and the other was resected, the ovaries being preserved. No irrigation or drainage. The patient made a good recovery, though her temperature was above 101° F. for a few days.

I do not pretend to explain the ætiology of this peculiar condition. Evidently the infection (whatever may have been its source) was not severe. At any rate, the appendicular trouble was not the most important, although its symptoms were masked by those due to the intrapelvic lesions. I have always felt that I took great chances in this case. If I had employed drainage, I should have believed that this had saved the patient.

I do not agree with those writers who recommend a median incision, even when suppuration of the appendix is suspected, unless diffuse peritonitis is present, and free irrigation is necessary. Even then I should prefer to make a lateral incision first.

If the abscess is intrapelvic, the usual vaginal incision may be sufficient, at least as a palliative measure, though not in such acute appendicular cases. In the subacute, or recurrent, variety accompanying tuboovarian disease, the gynæcologist will nearly always prefer to work through a median incision. Not to reopen the much vexed question of the possibility of dealing with high adhesions through an incision in the posterior vaginal fornix, I shall only say that personally I have often had occasion to congratulate myself that I had resorted to the abdominal route, in order to detach adhesions more intelligently. We have practically abandoned the vaginal route since I took charge of the division, in 1896, the average mortality being a little over 5 per cent. The mere separation of a diseased appendix, without removal, has been followed, not only by fatal results, but by complications necessitating a subsequent operation. The most careful conservative work may be marred by the failure to recognize and remove a diseased or adherent appendix. It may be assumed that we all excise the organ without hesitation, even when only its tip is adherent, since it is well known that the appendicular wall is thickened at the point of attachment, and may either become the seat of a subsequent acute inflammation, or may again become adherent to raw surfaces. In fact, every appendix should be "arrested on suspicion" if it is found in the pelvis.

The routine examination of the appendix, so strongly advocated by Kelly, is now the usual practice among gynæcic surgeons, in fact, they have led the way in advocating its removal in every case in which the abdomen is opened for pelvic disease, whether it is affected or not. I recall my last conversation with the late Dr. Thomas, in which he expressed himself strongly in favor of this course. I have followed it invariably during the past three years, and have never seen any but good results. The satisfaction of the patient when told that she need have no fear of a subsequent appendicitis is always gratifying—in fact, many women stipulate before operation that the appendix shall be removed—while the surgeon also congratulates himself that a possible future danger has been prevented. Of course, no one would think of stopping to remove a normal, or even a thickened, appendix with a patient in collapse after a long operation, or in circumstances in which every minute was precious. Nor is there any particular object in doing this in the case of an elderly patient or of one whose life must soon be terminated by incurable disease. But I would insist on the general proposition that the appendix should be removed whenever the abdomen is opened, provided that it entails no extra risk, as is true in the majority of cases.

The following points have been touched upon in this brief résumé:

1. Appendicitis is a frequent complication of inflammatory disease of the annexa.
2. In most cases it is secondary to annexal trouble, a long appendix in contact with, or adherent to, the right tube or ovary being infected by extension through its wall, or through the lymphatics.
3. The inflammation of the appendix is usually of the subacute type.
4. In a small proportion of cases the infection extends from the appendix to an adherent tube or ovary, or cystoma.
5. The symptoms of the associated conditions are usually determined by the more prominent lesion, but these are referable principally to the diseased annexa.
6. The diagnosis is made from the history, the location of the pain (above, as well as below, the pelvic brim), and the presence of an induration which can be traced from the appendicular region downward into the pelvis.
7. In acute cases, with an extrapelvic mass, the lateral incision is preferable, with subsequent exploration of the pelvis and vaginal drainage if possible. If the abscess is mainly intrapelvic and easily accessible, vaginal section is indicated.
8. In subacute and recurrent cases a median incision is to be elected.
9. The appendix should be removed whenever the abdomen is opened for pelvic disease, with the exceptions noted.

The Johns Hopkins Hospital's Fifteenth Annual Report was issued on July 14th. It is for the year ending January 31, 1904. There were admitted to the hospital during the year 1,924 males and 1,938 females, making a total of 3,862. The total number of males treated was 2,076 and of females 2,090, or 4,166 patients, as against 4,162 in 1902. Of these 3,268 were white and 898 colored. The discharges during the year were 1,939 males and 1,943 females, making a total of 3,882 patients. The results of treatment were 3,064 discharged as well, 128 unimproved, 320 not treated and 108 transferred to other departments. There were 262 deaths, 168 of males and 94 of females. In the 3,862 patients admitted to the hospital 29 nationalities were represented. This country led with 3,208, next came Germany with 228, and Russia with 140. Newfoundland, Turkey, Switzerland, South America, and Japan each had one. The total visits made by patients to the dispensary were 63,839. In the out patient obstetrical department 285 cases were treated, with no deaths. The mortality rate for the year was the lowest since 1899, being 6.29 per cent.

PLACENTA PRÆVIA CENTRALIS. PROFUSE HÆMORRHAGE; COLLAPSE; PODALIC VERSION; MANUAL EXTRACTION OF PLACENTA; RECOVERY OF MOTHER.

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In presenting this case for publication, I feel that the profession will bear with me, because of the interest always attaching to cases of complete placenta prævia with its high mortality, and because of the recovery of the mother in this case. Especially is it noteworthy on account of the fact that the operation was performed in the second stage of labor, and in consequence of a minimum amount of liquor amnii, the fœtus was firmly grasped in an oblique—almost transverse—position by a contracted uterus, and the patient was in an extreme degree of collapse.

Case.—Mrs. M. L., aged thirty-three years, married, quintipara, was admitted to the New York Postgraduate Hospital on the afternoon of July 7, 1901, at a quarter past three o'clock, in a condition of collapse following profuse hæmorrhage from central placenta prævia. The history is as follows: On examination she was found to be bleeding very profusely, apparently being about nine months' pregnant, and was sent in as a placenta prævia. I ordered patient sent to operating room and prepared for operation at once. Patient was found in complete collapse as a result of the severe shock from hæmorrhage. Pulse was 136, weak, thready and easily compressible; temperature, 100° F.; respirations, sighing, 28. I at once ordered an intravenous infusion of normal salt solution, which was given and kept up until the effect was readily appreciable to the fingers taking the pulse. This required a little over 1600 c. c. of the solution. In the meantime the following history of the patient was obtained:

Briefly, for the past two months she had been having slight hæmorrhages about twice a week. On July 2nd, as nearly as could be remembered, she began to bleed more profusely, and this kept up until July 6th, when hæmorrhage became very alarming. Sunday, July 7th, a doctor was called in for the first time. He deemed a consultation advisable, and about 1 p. m. the consultant arrived and diagnosticated the case as one of placenta prævia. He hurriedly tamponed the patient and sent her to the hospital.

She had been married about six years, had gone through four normal labors, the first in 1895 and the last in 1899, never having had a miscarriage. On Saturday night (the night before) and the morning following, she had had a few labor pains, which, however, were not very severe.

By the time anæsthetization, which was carried to the obstetrical degree only, was completed by Dr. Allee, I had made a careful examination of the patient, and found that completely covering the os cervicis—which was about fully dilated—was a mass of placental tissue. On passing the index and middle fingers of the left hand around one half the orbit of the cervix on the right, and the corresponding fingers of the right hand likewise around the other half on the left of cervix, there was found complete adhesion on all sides, it being impossible to reach the margin of the placenta.

In this examination the placenta was not stripped from the uterine wall around the entire orbit, as the welfare of the fœtus, if alive, was kept constantly in mind. It was only at four or five points that the fingers were inserted their whole length between the placenta and uterine wall, in the endeavor to find placental margin. Meanwhile the fœtal heart had been carefully sought for by several of the hospital staff, but was never definitely determined, and finally the search had to be given up.

On account of the patient's condition, strychnine sulphate, grain, $^1/_{30}$, and camphor, grain 1½, were administered hypodermically, with rapid beneficial effect. During this examination the position of the fœtus was found to be an oblique one, the head being to the left and above the umbilicus, the breech lying to the right in the iliac fossa, with the back below and inclined to the front. The patient was now placed in lithotomy position and the operation begun, assistance being rendered by Dr. H. D. Furniss and Dr. Halsey of the hospital staff.

As just stated, since it was impossible to find the edge of the placenta, it was deemed expedient to introduce the hand directly through placental tissue, this being in the author's opinion less likely to produce violent hæmorrhage during the ensuing manipulations, than if the amount of placental tissue necessary to delivery were stripped from the uterine wall. Besides, it was thought that there would be more *fœtal breathing surface* of placenta left by this method.

The fingers of the right hand were made to form a cone, and thus the hand was quickly passed through the centre of the placenta and the left foot seized and drawn down and out of the vagina. The breech was held firmly down and by its pressure a minimum amount of bleeding was observed. The right leg, which was found to be extended, was then delivered by passing it across the abdomen downwards, inwards, and forwards. In this way the entire breech was delivered, passing down in the left oblique diameter of the pelvis. During these manipulations, and notwithstanding that the fundus of the uterus was made closely to follow the fœtus down as delivery progressed—by pressure upon it by an assistant—the arms became extended over the head. They were passed downward and inward over face, the left and anterior one, first. The shoulders then engaged in the left oblique diameter and the head in the right oblique. To deliver the head, the left arm of the operator was passed under the abdomen of the child, and the index and middle fingers of the same hand were pressed upon the fossæ caninæ, aiding the flexion and rotation of the chin over the perinæum. The fingers of the right hand were hooked over the shoulders of the child and traction made, until the chin, mouth, and nose in turn emerged over perinæum. The Prague method was then used to complete the delivery of the head, which was done with very little difficulty. The limbs, breech, and body of child had been wrapped with hot cloths, as delivered, to prevent attempt at premature respiration. When born, however, the child was cyanosed and perfectly limp. The cord seemed to pulsate feebly, but if so, this was very evanescent. It was immediately clamped with two forceps and cut between.

The child was a female, well developed, and at full term. Artificial respiration was begun at once and kept up for an hour, when it was discontinued, as there had been no signs of life, although every known means of resuscitation had been resorted to.

Twenty minutes after the delivery of the child, it was deemed advisable to complete labor by the delivery of the placenta, as there was considerable hæmorrhage. As the placenta was not readily delivered, Credé's method of expulsion having been tried, it was thought best to remove it manually, which was done. It was found rather firmly attached to the left anterolateral wall, but was pulled off whole without much trouble. It was a little larger than normal and slightly oblong, its longest measurement being about 22 c. c., and the shorter one about 15 c. c.

It was of normal thickness, except for a round spot about 5 c. c. in diameter, where the hand had been pushed through. At this spot, which had been over the os internum (as the opening made by the hand was through it), the placenta seemed hollowed out, like a watch crystal, and at its thinnest point it was only about half the thickness of the rest of the tissue. The hole made through the placenta by the passage of the operator's hand was found to be very near the centre, showing the central implantation of the placenta very prettily.

The patient was then given a hot mercury bichloride intrauterine douche 1-10,000, at temperature of 112° F. One half a drachm of fluid extract of ergot was given hypodermically, and the patient was removed to the ward in rather poor condition, but as good as at the beginning of operation, the entire time occupied, including anæsthetization, being one hour and fifty minutes.

A pad was used above the fundus of the uterus, underneath the binder, which was applied very snugly. The after treatment of this patient was very similar to that ordinarily employed after normal labors, the grave dangers of post partum hæmorrhage and infection from the low placental wound, however, being constantly kept before the mind. Therefore, fluid extract of ergot one half a drachm was ordered three times for the following day, and twice for the next two days. Dressings were changed every four hours and the patient catheterized every eight hours. A vaginal douche was ordered after each such procedure. She was put on the usual fluid diet. Her temperature was taken three times a day, and steadily decreased until the third day, when it had become normal.

On account of the interest attached, the temperature chart is appended.

Temperature	Degrees F.	Pulse.	Respiration.
on arrival, July 7..	100	136	28
12 m., July 7.......	101.4	100	28
6 a. m., July 8.....	100.8	100	28
12 m., July 8.......	99.6	72	20
6 p. m., July 8.....	101	96	22
6 a. m., July 9.....	99.4	92	28
12 m., July 9.......	99.8	96	24
6 p. m., July 9.....	99.4	84	24
6 a. m., July 10....	98.6	84	20
6 p. m., July 10....	98.4	88	20

On July 10th, three days after operation, strychnine, quinine sulphate, arsenic, and Blaud's pills were ordered. Everything continued perfectly normal until July 15th, eight days after the operation, when the patient was discharged at her own urgent request.

I regretted that I was unable to gain the consent of the parents to an autopsy on the infant, as it would have been both interesting and instructive to have observed whether there were any ecchymotic spots in the lungs or in the glands, or if there was any amniotic fluid or meconium in the trachea or bronchi.

It is my opinion, however, that the fœtus had probably died one or two days before, as there was a minus quantity of the normal mucus in the mouth and throat, and in efforts at insufflation by the mouth there was no mucus blown out of the nose.

This case is published by the courtesy of Dr. G. L. Brodhead, in whose service, but during whose absence, it was received.

48 East Thirty-first Street.

Graduates of the Kentucky School of Medicine, Louisville.—The commencement exercises of the Kentucky School of Medicine were held on July 9th at the Masonic Theatre and diplomas were granted to fifty-seven men and one woman. The class is one of the largest in the history of the institution. The list of graduates is as follows:

Edward Adams, J. D. Byrne, Clyde Brady, Eli Back, Irvin Berry, George H. Bohannon, W. Thomas Cain, J. W. Craddock, L. M. Davis, W. A. Daugherty, C. A. Edelen, John J. Fay, S. M. Ford, William M. Fulbright, Morton Faulkner, Dennis B. Healy, Jacob M. Hoskins, Myrvin E. Hoge, Henry P. Hopper, John C. Hall, O. R. Hess, I. W. Jones, Rufus H. Kessel, Lemuel H. Kerr, Frederick Joseph La Fleur, M. A. Lenton, J. A. Land, Alice Miller Mass, C. E. McNeil, R. A. J. McKeand, B. M. Mannin, A. S. Neely, W. Staats Pomeroy, Alfred R. Poole, Austin E. Popham, Ellis E. Raike, G. L. Rankin, James E. Rainey, C. T. Riggs, Michael Robinson, Milson W. Rothrock, Wilbur G. Ruble, William Sanders, J. Amsa Seay, Walter E. Seay, L. E. Stinson, E. L. Stoner, W. L. Spencer, Eugene A. Sturm, D. J. Thompson, Samuel E. Thompson, John C. Tucker, James W. Ward, Amzi Weaver, Finley N. Willis, A. P. Wright, K. B. Woolery, George H. Yenowine.

Our Subscribers' Discussions.

A SERIES OF PRIZE ESSAYS.

Questions for discussion in this department are announced at regular intervals. So far as they have been decided upon, the further questions are as follows:

XXXI.—By what means have you ever saved a person supposed to have been drowned? (Under adjudication.)

XXXII.—How do you treat insomnia? (Answers due not later than August 30th.)

XXXIII.—How do you treat varicose veins of the leg? (Answers due not later than October 15th.)

Whoever among our subscribers (with the limitations mentioned below) answers one of these questions in the manner most satisfactory to the editor and his advisers will receive a prize of $25. No importance whatever will be attached to literary style, but the award will be based solely on the value of the substance of the answer. It is requested (but NOT REQUIRED*) that the answers be short, if practicable no one answer to contain more than six hundred words.*

Only subscribers to the New York Medical Journal and Philadelphia Medical Journal *(including regular and volunteer officers of the Medical Corps of the United States Army, Navy, and Marine Hospital Service, commissioned or under contract) will be entitled to compete, and all persons known to be engaged in medical journalism are disqualified. This prize will not be awarded to any one person more than once within one year. Every answer must be accompanied by the writer's full name and address, both of which we must be at liberty to publish.*

The prize of $25 for the best essay submitted in answer to question XXX has been awarded to Dr. George Slocum, of Ann Arbor, Mich., whose article appears below.

PRIZE QUESTION NO. XXX.

IMPROVISED INSTRUMENTS AND APPLIANCES.

By GEORGE SLOCUM, M. D.,

ANN ARBOR, MICH.

Having been called several miles into the country to treat a fracture of the right femur in a child age two years and a half, as there were no hooks or pulleys available to enable me to adopt the suspension method of treatment, and as it was apparent that the ordinary weight and pulley device with elevation of the foot of the bed would not secure immobility of the fracture in so young a child, the following method was devised:

A lap board, such as is used by women in sewing, was ready at hand in the house. A board one inch thick, three inches wide, and one foot long, was firmly secured with screws to the lower side of the lap board at one end, so that its edge was even with the end of the lap board. To this a short board about three inches wide, six inches long, and half an inch thick, was firmly fastened at the right of the centre of the lap board, so that one end coincided with the lower surface of the board already in place and the other end projected above the clear upper surface of the lap board.

Near the upper end of this short board a hole half an inch in diameter was bored and nicely smoothed off. This furnished the pulley.

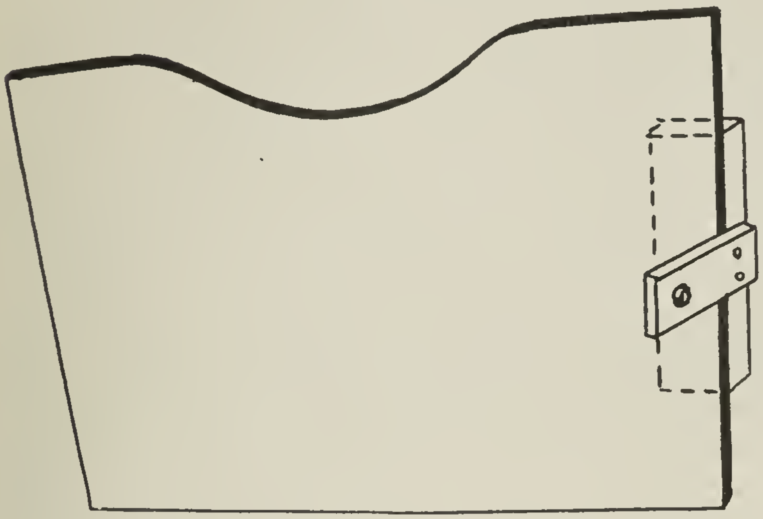

FIG. 1.—Showing pulley board and manner of fastening.

A strong pair of suspenders with firm heavy rubber elastic webbing was procured. The prepared lap board was now well padded with soft quilts. A folded sheet and draw sheet were laid upon the padding, and the whole secured by several strips of cotton bandage passed under the board and pinned to the covering at the edges, there being a sufficient number of strips used to hold the bedding firmly in place.

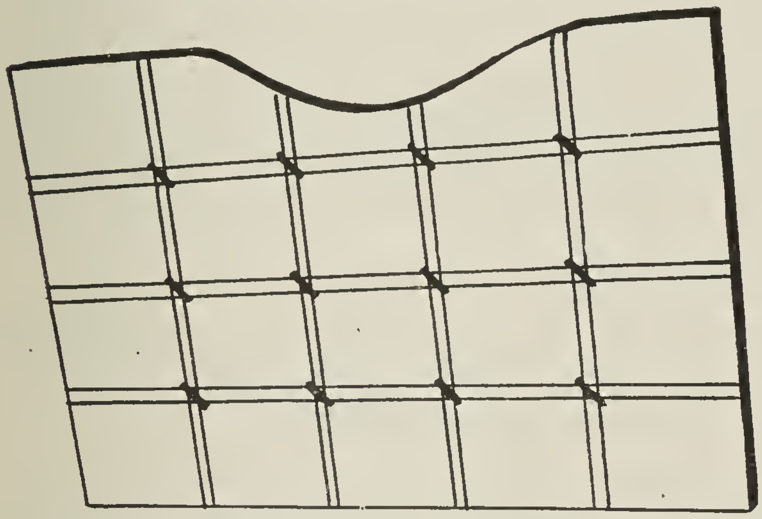

FIG. 2.—Under surface of board, showing method of securing bandages.

A very thin light pillow was provided. The fracture, which was at the junction of the middle and upper third of the femur, was reduced under chloroform and adhesive plaster and splints applied as in the usual manner for Buck's extension. The child was placed upon the lap board bed, and the extension cord attached to the foot piece passed through the pulley hole and tied through both button holes of that end of the suspenders which in its proper use is buttoned to the back of the trousers.

Through both button holes of each front end of the suspenders a strong piece of bandage, three inches wide and about three feet long, was passed two thirds its length.

The suspenders were now passed beneath the board and the broad bandages brought up on either side of the child's head, the longer end passed under the axilla and tied to the shorter end in a single loop bow knot. Each axilla was carefully padded to protect it from irritation.

A cross strip of bandage held the wide bandages the proper distance apart, so they could not slip from under the child's arms. The extension was secured by the traction of the foot piece cord through the pulley board; counterextension by the bandages under the arms. The elastic webbing furnished the traction and the amount of it was regulated by adjusting the length of the bandages under the arms. A double Hamilton's long splint was carefully padded and applied in the usual manner.

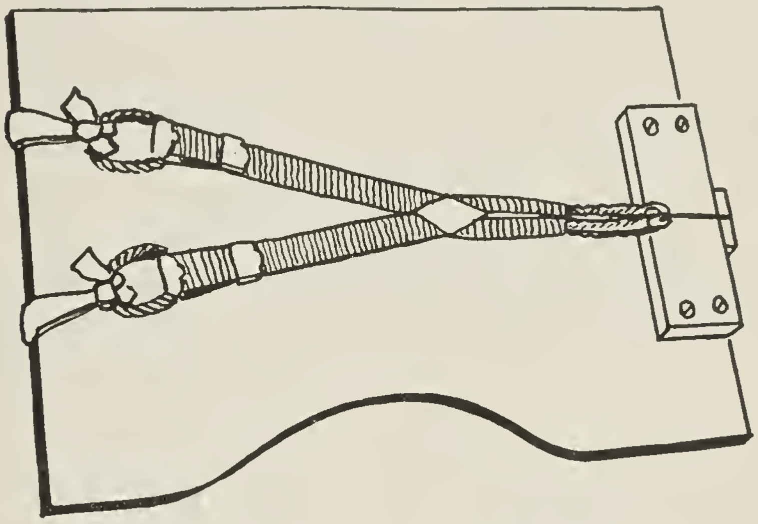

FIG. 3.—Lower surface, suspenders in place.

This bed was devised only as a temporary treatment, to be discarded as soon as the usual suspension apparatus could be secured and applied. On it the child was quiet and free from pain, and seemed contented. However, because of lack of confidence in the temporary device, the vertical suspension apparatus was applied after a few days, in the expectation that the child would be as comfortable and to facilitate keeping it clean and dry, but after the change it cried and fretted so much and seemed to suffer so much pain, notwithstanding every effort was made to adjust the amount of traction, that it was returned to the lap board bed. The former method of extension and counterextension and traction was resumed, with the result that the fretting and crying ceased and the child immediately became contented and happy and so continued as long as it was necessary to keep up extension. Union resulted in the usual time. The leg was straight and there was no shortening.

From this experience it would seem as if the appliance was worthy of further trial. Strong elastic webbing might be substituted for the suspenders, and any other light firm board of sufficient width and length could be used. Small pulleys could be arranged to lessen friction of the traction cord if thought desirable.

The advantages of this method of treatment were that the child could be carried, board bed and all, from the sleeping room to the nursery or elsewhere, and could be placed in its crib or on a bed. It was easy to keep the bed clean. The materials for the apparatus are at hand or easily obtained. It is inexpensive. The method would be applicable to children up to four or six years, only necessitating a longer board for the older children.

307 North State Street.

Dr. John L. Dodge, of Octave, Arizona, writes:

A Mexican gold miner, thirty-one years old, sustained a fracture of the middle third of the right femur on November 25, 1903, due to an accident on the cage while he was coming up out of the mine. A plaster dressing from the ribs to the toes was at once applied. Two months later, on January 25, 1904, the plaster was removed and the fracture found to be ununited. The situation was a mining camp on the Arizona desert, remote from railroad, hospital, or any other physician. The man's health had deteriorated so much from the long confinement that I was convinced that further confinement would greatly retard if not defeat recovery. He must have fresh air and exercise, and I must improvise an apparatus, for the nearest instrument maker was over 1,000 miles away and the man was poor. Leather straps and buckles could not be procured in camp. After two days' thought I devised an appliance that was not wholly original. Fortunately, we had a blacksmith in camp. I cut out pasteboard models, which he intelligently followed, for the iron framework. The splints were made of 1/8 inch sheet iron 1½ inches wide. On the inner side of the limb one splint extended from the perinæum to the knee, where the end was countersunk, and another splint loosely riveted to it. This last piece extended to the ankle joint, where it, in the same manner, was attached to a shorter piece extending to the heel of a shoe, to which it was bolted. For the outer side of the limb four splints were used. The three lower corresponded to the first three described, and the last and upper one joined at the hip joint and extended nearly to the lower ribs. These joints allowed free movement of the hip, knee, and ankle. Having no leather, I found at the mill a piece of old rubber belting, six inches wide, which I cut to the circumference of the limb and applied immediately over the fracture after protecting the whole limb thoroughly with cotton and a bandage. In the opposing edges I punched holes and laced it snugly with shoe strings. I found an old piece of canvas which had been used for a tent, and, cutting it to the circumference of the limb, I sewed it tightly to the iron splints on each side and laced it in front and behind with shoe strings. This canvas was in two pieces, one extending from the ankle to the knee and the other from the knee to the perinæum. This held the iron splints on either side of the limb snugly in place. The upper splint was held firmly in place by a band four inches wide extending round the waist. This was also made of rubber belting and covered with a strip torn from an old flannel shirt. The inner side of this belt was padded with cotton to prevent chafing. A perineal pad was then made from the same shirt and stuffed with cotton, and the two ends were attached to the top of the upper splint, through which a hole had been bored. All connections were made by punching holes and lacing with shoe strings, as I had no straps or buckles or leather of any kind. All points apt to chafe were well padded with cotton.

I found that this apparatus, when applied, held the limb as in a vise, and still permitted free movement of the hip, knee, and ankle. The patient was at once put on crutches, and so remarkably free were his movements and so expert did he become in handling himself that he was enabled without any assistance to go to the closet for bowel movements, to his meals, all over the camp, and to dress and undress himself, make up his bed, and read.

His general health improved rapidly, and on March 25th, two months after the application of the apparatus, it was removed and firm bony union found to have taken place.

Dr. Everett S. Hicks, of Port Dover, Ontario, writes:

Emergency Satchel.—Ordinary hand satchels are too small. Get a canvas telescoping bag and put in leather flap, with loops for bottles on one side, lined with a removable canvas lining, and you have a cheap, sterilizable, good sized outfit.

Aspirator for Larger Collections.—Connect a bulb syringe to your cannula.

Fracture Bed.—One can be made after the approved models for $2.00. Make a platform for mattress and a windlass to draw it up and down to the well drawn sail cloth and frame on which the patient lies. This allows of the use of bed pan, etc. In case of a small boy, use the following:

For a Boy.—Use a wide board, cut out a place for the buttocks, pad over all nicely, put on a tight draw sheet under the hips and elevate the board on blocks till the lower end is level with the bed.

This allows the use of the bed pan and avoids destroying the bed, as well as the inconvenience of having a small child in a large bed.

An Operating Table may be improvised after the fashion of a stretcher by rolling a sheet on two rollers and fastening the ends. This can be elevated at one end to give the Trendelenburg position. The same position can be improvised by raising the table on blocks and sawing off the legs at such an angle as will keep the table steady.

In Preparatory Aseptic Work, use common soft soap instead of green soap. For a powder duster nothing is handier than a talcum box, with the holes enlarged. It will stand dry heat sterilization.

As a Politzer Bag, use the bulb and tube from an atomizer. The common auto-sprays of the farm, when controlled by a dollar cut off, cannot be excelled for sprays.

For Sterilizing Sheets and Large Articles that a small Rochester sterilizer will not accommodate, have a small boiler swung inside a large one by wire hooks. Leave off the top of the small boiler for steam heat and dry by placing the top on, and have the boiler raised on bricks on the lid of the stove.

For an Operating Gown use a night gown or sheets used apron style.

Any Model of Urethral Sound can be made by a blacksmith in a few moments. Their shape can be changed at once. Any of these drilled out will make a catheter.

As a Tourniquet, use the inner tube of a bicycle tire.

Needle Holder.—Common artery forceps filed out in alternate grooves.

Splint Material.—Wire window screens, perforated plates from a sawing mill. For a swinging back splint use gas pipe with wire handles and fill in with bandage. If near a paper mill, paper pulp may be used.

Fracture of the Clavicle.—Use a three-cornered bag, allowing the elbow to project through the apex of the triangle. Place the hand on the opposite shoulder, pin on tightly and your apparatus will pull upward, outward, and backward as well as any dressing will.

Fractured Ribs.—A surcingle.

Bent spoons and forks make good retractors, tampon introducers, and vaginal inflators in the knee chest position.

Don't forget common thread if you have no silk handy. Use furniture screw nails to fasten your fractures if you have no wire. Use the clove hitch for temporary extension. Cut out a piece of sole leather as a mouth gag.

From a hair pin or other wire make small retractors, nasal specula, and a suture tier for cavities.

Thermocautery.—Borrow a tinsmith's soldering outfit or use the gasolene solderers of the bicycle repairer. Wrap the handles in sterilized gauze.

Never be stuck for a quantity of gauze or aseptic surroundings. Boil cheese cloth or sheets and use them wet in an emergency.

Therapeutical Notes.

Non-Specific Coryza.—Rosenthal, in *Presse médicale* for May 28, 1904, states that the coryza occurring in patients who attempt deep breathing for the first time may be relieved by the following:

℞ Resorcin ....1 gramme (15 grains);
Menthol ....½ gramme (7½ grains);
Boric acid..................10 grammes (1/3 ounce);
Petrolatum ....100 grammes (3 1/3 ounces).

M. For a nasal ointment.

Syphilis.—In the course of an article on syphilitic reinfection in *Lyon médical,* for May 29, 1904, Molle gives this prescription of Simonet for secondary manifestations:

℞ Corrosive sublimate } of each............2 grammes
Sodium chloride } (30 grains);
Distilled water.............6 grammes (90 minims);
Powdered gluten............15 grammes (½ ounce);
Extract of opium.........1½ gramme (22½ grains);
Glycerin ....3 grammes (45 minims).

M. For 200 pills; 6 daily.

Antineuralgic Pills. — According to *Revue médico-pharmaceutique,* for April 15, 1904, the following formula is valuable in neuralgia:

℞ Quinine valerianate....10 centigrammes (1½ grain);
Extract of hyoscyamus.2 centigrammes (3/10 grain);
Extract of cinchona.....5 centigrammes (¾ grain).

M. For one pill; take two to four daily.

Blistering from Tincture of Iodine.—Claret (*Journal de médecine interne; Revue médico-pharmaceutique,* for April 15, 1904) states that the application of starch, or even ordinary flour, with enough water to make a paste, will, when applied to the injured surface, form starch iodide, which is harmless to the skin.

Boils.—According to *Revue médico-pharmaceutique,* for April 1, 1904, the following will abort boils:

℞ Metallic iodine.............4 grammes (1 drachm);
Acetone ....10 grammes (1/3 ounce).

M. Paint the boil once only; repeat in twenty-four hours, if required.

Chloasma Gravidarum.—*Revue médico-pharmaceutique,* for April 1, 1904, recommends:

℞ Aromatic vinegar (Codex)..............80 grammes (2 2/3 ounces);
Tincture of benzoin.........30 grammes (1 ounce);
Chrysophanic acid...........1 gramme (15 grains);
Oil of spiræa ulmaria.......................30 drops.

M. Wash the face night and morning with a few drops.

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NEW YORK, SATURDAY, AUGUST 6, 1904.

THE CHICAGO DRAINAGE CANAL.

We long ago presented to our readers a summary of the observed facts that were held by the sanitary authorities of Chicago to lead to the legitimate inference that the sewage of that city was so far purified by natural processes in its passage through the various waterways conveying it into the Mississippi River as to be rendered practically innocuous to the people of St. Louis, who derive their water supply from the Mississippi, taking it in at a point below the mouth of the Illinois River, the last of those waterways. Additional investigations were subsequently made by the Illinois State Board of Health, in 1901 and 1902, but the results were not made public at once, since they would bear forcibly upon litigation between the State of Missouri and the Sanitary District of Chicago.

These investigations have now been published in the form of a pamphlet, consisting of Observations on the Sewerage Systems and Water Supplies of the Cities of Chicago and St. Louis, and the Sanitary Investigations of the Illinois, Mississippi, and Missouri Rivers, by the board's secretary, Dr. James A. Egan; and Chemical and Bacterial Examinations of the Waters of the Illinois, Missouri, and Mississippi Rivers, by John H. Long, Sc. D.; supplemented by a paper entitled Identification of Pathogenic and Sewage Bacteria Found in the Illinois, Mississippi, and Missouri Rivers, by Professor F. Robert Zeit, of the Northwestern University Medical School.

The Illinois board's most striking present contention is that the diversion of Chicago's sewage into the Mississippi River really gives St. Louis water of a better quality than it would otherwise get from that river at Chain of Rocks, its point of intake. This contention, paradoxical as it may seem, is supported by the statement that enough water from Lake Michigan is let into the drainage canal to supplement the self-purification of the sewage-contaminated water to such a degree that the water of the Illinois River at its entrance into the Mississippi is purer than that of the Missouri River, which empties above Chain of Rocks, polluted as the latter is by organic matter from the slaughter houses and different industrial establishments of Omaha, Kansas City, and other places. The board is of the opinion that as soon as the plans of the sanitary district have been completed, and the drainage of the Evanston and Calumet districts has been diverted from the lake into the canal, the water of Lake Michigan will become thoroughly safe and satisfactory for domestic use. The Illinois board has long been noted for its careful and conscientious work, and it is to be hoped that its views as to the water supplies of Chicago and St. Louis will be fully borne out by events—or lack of events, rather.

THE EFFECTS OF SODIUM CHLORIDE.

Recent observations going to show that reducing the amount of sodium chloride in the diet seems to assist the remedial action of the bromides in epilepsy may have led to much of what we now find in current literature as to the harmful capability of salt. At all events, there appears to be at present a disposition to inquire minutely into the pathogenic possibilities of that necessary ingredient of our diet when taken in excess of the due amount. Several aspects of the subject were considered at a recent meeting of the Paris Hospital Medical Society (*Presse médicale,* July 16th).

M. H. Vincent called attention, in particular, to the injurious effects of salt in the hysterical. If, he said, an hysterical subject took daily from three to four drachms of salt in addition to what was naturally contained in the ordinary diet, the nervous manifestations were intensified, and sometimes the number of outbreaks was increased. He thought also that such amounts of salt were capable of evoking hysterical manifestations in subjects in whom otherwise the hysteria would remain latent. At the same time, he said, attacks of severe gastric pain occurred, and there was insomnia. Occasionally, he added, the excess of salt proved its own corrective by giving rise to vomiting and diarrhœa, whereby it was eliminated. On the other hand, in cases of excess of hydrochloric acid in the gastric juice, diminution of the amount of salt ingested sensibly alleviated the symptoms and was a valuable adjuvant to the general treatment. There are but few people, we imagine, who habitually eat three or four drachms of salt daily in addition to the amount naturally contained in their food; consequently little need be feared from " seasoning to the taste."

M. Henri Claude, rightly, as we are disposed to think, spoke of many of the recent observations on the evil effects of salt as unscientific, and he made a beginning in a more rational consideration of the subject. He reported having found that healthy persons who added no salt to their food for a period of five days showed a progressive diminution of chlorides in the urine, together with a sudden reduction of the amount of urea and an increase of phosphates, indicating heightened consumption of tissue. With these contradictory statements before us, it does not seem that there is any grave occasion to fear impairment of health as the result of taking reasonable amounts of salt with our food.

THE BEHAVIOR OF MEDICAL STUDENTS.

The British Medical Association held its seventy-second annual meeting in Oxford last week, and we are indebted to the secretary for proof sheets of the formal addresses. It is not to be wondered at that the president, Dr. William Collier, took the Oxford Medical School for the subject of his address, since he is himself a lecturer in the University of Oxford, though a Cambridge graduate in medicine. In one of the sections of his discourse there was a diversion from his particular theme, and Dr. Collier therein considered some phases of the influence of university life, especially that of medical students with a university training upon the other medical students with whom they are thrown in final professional study.

"All of us," says Dr. Collier, " are familiar with the Bob Sawyer type of medical student—that is to say, we are familiar with him in fiction—but I rather fancy as a living type he has for many years ceased to exist." He then remarks that many can remember the time when any outbreak of rowdyism in London more than usually disgraceful was sure to be attributed, rightly or wrongly, to medical students; but this, he says, is a matter of the past. " The medical student of a quarter of a century ago," he adds, " undoubtedly bore a very bad character in the eyes of the public; he no longer does so. Why the change? " It is largely, he thinks, attributable to the influence of the university graduates who have come among them. " These university graduates," he says, " are older men, and have long passed their first experience of freedom from school discipline, have more settled purposes in life, have a clearer and better idea of what is so difficult to define, but so easy to recognize—good and bad form. It is these older students who, in recent years, have largely dominated the standard of life at our London schools, and their influence has been all for good."

In America, too, there has of late years been a growing infusion of university graduates among the medical students of the large cities, and here also the students of medicine have cast aside boyish pranks. But is the reformation due to the predominance of university influence? We doubt it. We should rather attribute it to a number of causes, prominent among which have been the extension of athletic contentions to the medical students and the ever increasing demands of the curriculum upon their time. The medical student of the present time knows that he must work, and work hard, with very little intermission, if he is not to fail utterly, both in the attainment of his degree and in upholding the credit of his school in intercollegiate sport. He has no time for the excesses of a generation ago, and, we are gratified to think, he has no inclination for them.

CONTRACT MEDICAL PRACTICE.

There have been occasional discussions of this subject in some of the medical journals, but such discussions will do nothing toward abolishing the evil unless they lead to some definite action on the part of the organized medical profession. At the last meeting of the Minnesota State Medical Association the House of Delegates recommended certain amendments to the constitution of the association, making it impossible for any member of the association to serve professionally any fraternal society, insurance company, club, or corporation on contract or stipulation where the fees for services were less than the minimum fees for like services in private practice in the locality where the service was performed. These amendments cannot be acted upon until the next annual meeting of the association, and meantime they will undoubtedly be thoroughly discussed in the various county societies of the State.

Unless we desire to see the medical profession in this country reduced to the deplorable condition which now prevails in many parts of England, Germany, and Austria, it behooves us to scrutinize very carefully the various organizations, which are rapidly increasing in number, that exist for the sole purpose of furnishing their members with medical and surgical services at bargain counter prices. In one small community in Minnesota, having a population of less than 10,000, a prominent physician states, one sixth of the people receive their medical and surgical services at the hands of three physicians who are hired by three different fraternal societies, and these three physicians are paid the sum total of $1,250 a year. Similar conditions exist in many other communities, and new societies and organizations are being formed constantly for the same purpose. In addition to these there are many accident insurance companies and railroad corporations which furnish to their policy holders and employees medical and surgical services for fees which average from one tenth to one third of the fees ordinarily charged in private practice for similar services. These various organizations seem to have no difficulty in securing the services of medical men of ability and often of high standing who are willing to accept for their services the ridiculously low fees which are offered them. One can hardly blame the young man just starting to practise for engaging in such work, when he needs every dollar he can earn, and when he finds not only that the profession as a whole has expressed no disapproval of it, but that many of those whom he has been accustomed to look up to as the leaders of the profession in his locality are engaged in it.

Let us consider for a moment some of the reasons which induce physicians to give their services to rich corporations and to fraternal societies for the pittance they receive. In the first place, there is the very evident reason that when a man is offered one of these positions he knows very well that if he declines it his neighbor will probably accept it, and he sees no reason why he should refuse what may seem to him a very considerable addition to his income. Then there is the further argument that if he accepts the contract to take care of the members of the fraternal society or corporation at reduced prices, he will quite probably be employed to attend the other members of their families, for which he may charge regular fees. Still another argument is that the fees, such as they are, will be promptly and fully paid without expense for collection, and there will be no bookkeeping and no bad accounts. None of these reasons seems to me to justify the injury done to the whole profession by those who offer their services to corporations at wholesale prices. I have heard physicians complain that they were at the mercy of these corporations and clubs in this matter. Far from it; these associations are entirely at the mercy of the medical profession, for they not only must have medical and surgical services, but they must have the best to be had, and if the best men will refuse to accept the trifling sums now paid them for their services, the corporations will be compelled to pay fees commensurate with the value of the services rendered.

Let us see wherein the evil of this kind of practice exists. First, there is the harm done to the whole profession in the lowering of its dignity in the eyes of the people and in the tendency to reduce a noble profession to the level of an ignoble trade. Next, there is the pecuniary loss to the individual who engages in this kind of practice, in that his remuneration for a large amount of arduous professional work is only a small fraction of what it should be; the individual also suffers, it seems to me, in that, while placing such a small value on his services, he is estimated in the eyes of those he serves as not being worth any more. Who has not heard the remark "So-and-So is a thirty cent doctor, and he is worth just about thirty cents?" Lastly, there is the wrong done to the other members of the profession who are not engaged in contract practice, by the placing of large numbers of persons, the care of whom when sick would naturally be divided more or less equally among the physicians of that community, in the hands of a very few men, who take care of them for a very small amount of money? The question is one which vitally concerns the welfare of the profession, and one which, if not settled at once, will assume such proportions that it will be as difficult to handle in this country as it has become in other countries.

I am among those who believe in the maintenance of an established code of medical ethics, and this question appeals to me as an ethical one. Few, I take it, will deny that the ethics of the profession of medicine is, and should be, very different from the ethics of business. The business man may advertise his wares, may send out his travelling men to find new customers, and may with perfect propriety pay commissions for new business; he may have one price for his goods to retail customers and another price to wholesale customers, and he may undersell his business rival if he so desires. I should not like to see these methods prevail in our profession. Who would like to see the noble traditions and the dignified ethics of medicine swept away, and the ethics of business substituted for them? Contract medical practice is, it seems to me a step —and a long one—in that direction, *et facilis descensus Averni!*

BURNSIDE FOSTER.

ST. JOHN'S GUILD.

The trustees of St. John's Guild state that they are in need of funds to carry on the work of their charity, in which we have always taken a special interest. As many patients have been treated already this season as during the whole of last summer. The idea of a floating hospital for children and their mothers is particularly appealing, and we hope our readers will use their influence to have contributions sent to the secretary of the guild, Mr. Isaac N. Seligman, of 501 Fifth Avenue.

FORMIC ALDEHYDE IN THE ATMOSPHERE.

At a recent meeting of the French Academy of Sciences (*Médecine orientale*, June 10th) M. Henriet stated that he had found formic aldehyde present in atmospheric air in about the proportion of from thirty to ninety grains to a hundred cubic yards of air—in quantity sufficient, he thought, to deserve consideration from the point of view of its physiological action on the tissues and particularly on the lungs. Truly the air we breathe is a complex fluid if M. Henriet's observations are correct.

THE HALF-HEARTED QUACK.

In two instances that have recently been reported in the newspapers a physician formerly of good repute, but subsequently an advertising quack, has fallen into bankruptcy. We cannot quite shut our eyes to the conjecture that the bankruptcy overtook the man because he was too "infirm of purpose," being a regularly educated physician, and therefore having necessarily imbibed something of ethics. Consequently we entertain the hope that the two men in question may be counted upon to see the error of their ways and return to the fold of regular and honorable practice.

A CONGRESS ON WOMEN'S DRESS.

Assuredly this is the era of congresses. There has recently been held in Dresden a congress of physicians, clergymen, and others to advocate reforms in women's apparel. We quite agree with the *Gazette médicale de Paris* that the first requisite to success in effecting such reforms is the consent of those most interested, the fashionable women. We may add that in our opinion men's dress is quite as much in need of reform as women's.

THE NEW VOLUME OF THE INDEX CATALOGUE.

The ninth volume of the second series of the *Index Catalogue of the Library of the Surgeon General's Office, United States Army,* has been received at this office. It consists of 66 pages of preliminary matter and 872 pages of text. It carries the vocabulary from L to Lyuri, including therefore all the entries under the letter L. It shows the same careful editing that we have become accustomed to in the preceding volumes, with which it worthily takes its place.

News Items.

Society Meetings for the Coming Week:

Monday, *August 8th.*—New York Medicohistorical Society (private); New York Ophthalmological Society (private); Medical Association of the Greater City of New York; Society of Medical Jurisprudence; Norwalk, Conn., Medical Society (private); Burlington, Vt., Medical and Surgical Club; Gynæcological Society of Boston.

Tuesday, *August 9th.*—Medical Society of the County of Rensselaer, N. Y.; Newark, N. J., Medical Association (private); Trenton, N. J., Medical Association; Clinical Society of the Elizabeth, N. J., General Hospital and Dispensary; Northwestern Medical Society of Philadelphia; Practitioners' Club, Richmond, Ky.; Richmond, Va., Academy of Medicine and Surgery.

Wednesday, *August 10th.*—American Microscopical Society of the City of New York; Society of the Alumni of the City (Charity) Hospital; Lenox Medical and Surgical Society (private).

Thursday, *August 11th.*—Brooklyn Pathological Society; Medical Society of the County of Cayuga, N. Y.; South Boston, Mass., Medical Club (private).

Friday, *August 12th.*—German Medical Society of Brooklyn; Medical Society of the Town of Saugerties, N. Y.

Change of Address.—Dr. J. N. Bassin, to 1774 Washington Avenue, between One Hundred and Seventy-fourth and One Hundred and Seventy-fifth Streets.

NEW YORK.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending July 30, 1904:

	Week end'g July 30.		Week end'g July 23.	
	CASES.	DEATHS.	CASES.	DEATHS.
Measles	183	8	201	7
Diphtheria and croup	202	24	275	25
Scarlet fever	88	8	88	3
Smallpox	1	..	2	..
Chickenpox	11	..	29	1
Tuberculosis	341	170	299	168
Typhoid fever	83	13	65	13
Cerebrospinal meningitis	..	25	..	22
Totals	909	248	959	239

Dr. Henry Prentiss, of this city, has been appointed professor of anatomy in the University of Iowa by the regents. He is now professor of practical anatomy in the Bellevue Medical College. He will begin work there in September.

Dr. Henry Wallace, who formerly held many appointments in various Brooklyn hospitals, has taken up practice in Glen Ridge, N. J., and is assistant attending physician to the Mountainside Hospital, Montclair, as well as laryngologist of the out patient department.

The Bellevue Pathological Laboratories.—At the meeting of the board of trustees, held on Wednesday, July 27, 1904, Dr. Charles Norris, of New York, was appointed director of the pathological laboratories in the department of Bellevue and Allied Hospitals, said appointment to date from October 1, 1904.

Proposed Emergency Hospital at Far Rockaway.—Far Rockaway is to have an emergency hospital for use during the summer months, at least, if those who have the plan in hand cannot keep it open the year around. John F. Cronin, treasurer of the committee of citizens who are agitating the scheme, has received about $1,800 thus far. The vice-president of the Long Island Railroad Company, acting for the company, has given $500 towards the project.

The Commission to Investigate Pneumonia.—Health Commissioner Darlington has invited eight prominent scientists to serve on the investigating commission, whose purpose is to avoid a pneumonia epidemic here next winter. They are: Dr. William Osler, of Johns Hopkins; Dr. William H. Welsh, of Johns Hopkins; Dr. Edward G. Janeway, of New York University; Dr. J. Mitchell Prudden, of the College of Physicians and Surgeons; Dr. L. Emmett Holt, of the College of Physicians and Surgeons; Dr. Frank Billings, of the Rush Medical College of Chicago; Dr. John H. Musser, of the University of Pennsylvania; and Dr. Theobald Smith, of Harvard.

A New Boat for the Health Department.—At a meeting of the Board of Estimate and Apportionment, on August 2nd, corporate stock to the value of $67,000 was granted to Commissioner Darlington for a new boat to ply between the borough of Manhattan and the several hospitals for contagious diseases on North Brother Island. Five thousand dollars were also voted to dredge Flushing Creek after the members of the board had been told that the United States Government had threatened to begin an action against the city if it did not abate the nuisance caused by the discharging of sewage into that stream.

City Milk Carefully Inspected.—The health department is dumping quantities of milk into the street this summer because its temperature when it reaches the city is above 50 degrees F. Three thousand cans have been spilled in a single night, and one night a whole train load was condemned on its arrival here. This action of the health department has caused a good deal of complaint among the milk dealers. They declare that the quantity seized and condemned sometimes is so great that they are unable to supply their customers. They assert that the inspectors would find the milk all right, so far as temperature is concerned, if they would go to the stores from which it is distributed, instead of taking it directly from the wagon when it enters the city. While it is in transit from the car to the distributing point it is difficult to keep it cool. Mr. Murray, Commissioner Darlington's secretary, when asked about the complaints of the dealers, said that the health department's object in declaring milk above 50 degrees F. adulterated, and in enforcing so strictly the regulation of the health code, which orders the condemnation of adulterated milk, was the preventing of cholera infantum as far as possible. "We consider milk above 50 degrees as adulterated," he said. "As milk becomes warmer the germs multiply in geometrical progression. Our object is to have the milk cared for in such a way from the time it leaves the cow until it reaches the home that infants will not have attacks of cholera infantum from drinking it. Some of the milk is twenty-four hours' old when it gets here and has traveled five hundred miles. We examine the milk as soon as it reaches the city, so that we may keep out any that has not been properly cared for *en route.* We want pure milk. Milk which is not cooled and kept cooled properly is not pure. We have been examining milk for its temperature since the middle of June."

PHILADELPHIA.

Philadelphia Health Report.—*The Report on Contagious Diseases, compared with that of the previous week, is as follows:*

	Week end'g July 30.		Week end'g July 23.	
	CASES.	DEATHS.	CASES.	DEATHS.
Smallpox	..	..	..	..
Diphtheria	31	2	41	4
Scarlet fever	48	..	43	1
Typhoid fever	62	9	65	11
Consumption	..	51	..	52
Cerebrospinal fever	..	..	..	..
Totals	141	62	149	68

An Undertaker Fined.—M. J. Makurat was fined $10.00 by a magistrate for conducting a public funeral in a case of death from diphtheria.

Anthrax Among Cattle.—It is reported from Leesburg, N. J., that the cattle of Maurice River township are infected with anthrax, which threatens to spread.

Activities of the Children's Country Week Association.—Last week the Children's Country Week Association sent nearly 400 children and twenty mothers with infants to the country for a week's stay.

Annual Meeting of the American Fisheries Society.—The thirty-third annual meeting of the American Fisheries Society was held at Atlantic City, July 26th, 27th, and 28th. Members from all parts of the United States were present.

Property Bought by the Society for Organizing Charity.—The Philadelphia Society for Organizing Charity has purchased properties covering an area of 66 by 171.2 feet on North Sixth Street and Marshall Street, near Girard Avenue.

Personal.—Dr. Henry Dorrance Beyea was married on August 3rd to Miss Elizabeth Janvier Meredith, at Abingdon Church, Virginia.

Dr. Henry M. Wetherill died on July 27th at his home, 3318 Arch Street, of heart disease. Dr. Wetherill was a graduate of the University of Pennsylvania in the class of 1852. He was an ex-resident of the Philadelphia Hospital, and was at one time on the staff of the Pennsylvania Hospital. He was secretary of the State Board of Lunacy for several years, and was a botanist of some note.

Beriberi.—The bark *Foong Suey* from Kahului, Hawaii, arrived at the Delaware Breakwater July 28th. One member of the crew died on the voyage and three others are dangerously ill with what is supposed to be beriberi. There are other milder cases of the same disease among the crew. The voyage, which was marked by a severe storm followed by calms with intense heat, when the vessel was near the equator, required 142 days. The crew were obliged to live on partly spoiled food during the latter part of the voyage.

An Endowment for Presbyterian Hospital.—In the will of Mrs. Eleanor Cooper, who died recently in Washington, D. C., there are bequests amounting to $15,000 to the Presbyterian Hospital in Philadelphia; $10,000 for the endowment of a private room, and $5,000 for a free bed.

The Weather.—On July 21st, the temperature reached 90°, and although the humidity was only 46, there were one death and five prostrations reported in the city. The sun was unusually hot and there was almost no breeze to temper its rays. The remainder of the week has been quite comfortable, with low temperatures, but rather high humidity.

The Will of Marie L. Gage, of Philadelphia, who died at Cape May, N. J., on July 17th, provides for the following charities: To the Women's Hospital, $5,000; to the Presbyterian Hospital, $500; Philadelphia Home for Incurables, $1,000; Hahnemann College Hospital, $2,000; $5,000 to the Presbyterian Hospital for a bed in memory of D. C. Gage, husband of the decedent; $500 each to the Home for Incurables and the Camden Home for Friendless Children.

Hospital for the Study of Carcinoma.—George H. Earle, Jr., George H. Stuart, Jr., Floyd W. Tomkins, Frank L. Patterson, Boardman Reed, Richard Cadbury, G. Betton Massey, Charles H. Oberge, B. K. Wilbur, C. Wilson Roberts, H. R. Swayne, Addinell Hewson, Jr., W. Calvin Moore, and C. M. Desvernine are the incorporators of a hospital for the treatment and investigation of carcinoma. It is proposed to appeal to the public for funds.

Smallpox.—Last week no new cases of smallpox were reported for the first time in several years. There are but seven cases of the disease within the city limits, and these are all in the smallpox ward at the Municipal Hospital. The health department of the city have had a long struggle against great odds, but have finally won the day, greatly to their credit. Now comes the problem of preventing the reappearance of the disease. Of course, the only way in which this can be done is by the vaccination of everyone in the community. The health department is endeavoring to vaccinate all of the poorer people; but there is a duty in the matter devolving upon the upper classes.

For the Sterilization of Milk Bottles.—The following circular has been issued by the department of health:

To Whom it May Concern: This is to certify that the following resolution was adopted by the board of health on May 18, 1904. You will, as head of the family, have this resolution complied with, as it will help the health authorities to stop the spread of the disease:

Whereas, It is the opinion of this board that contagious disease may be, and is often, transmitted from one household to another through the agency of vessels employed for the delivery of milk; be it therefore

Resolved, That no bottle or other receptacle for milk shall be permitted to be taken from a house that is placarded or quarantined on account of the occurrence of a transmissible disease, until such bottles or other receptacles for milk have been disinfected by or under the supervision of the bureau of health.

That the attention of both householder and milk dealer is called to the above resolution, and they are hereby notified that to release milk receptacles or to collect them before they have been disinfected as ordered, will be regarded as a breach of quarantine, and will expose both milk dealer and householder to prosecution under the act of Assembly, approved June 18, 1895.

Appropriations Affecting the Public Health.—Out of the $12,000,000 just borrowed by the city of Philadelphia, $5,000,000 will be appropriated to the Department of Public Works for the use of the bureau of filtration in completing the filtration system for the city. The Department of Public Safety will receive $170,000, of which $90,000 will be used to erect a new hospital for contagious diseases and $50,000 for a new almshouse. The site for the new hospital for contagious diseases has already been procured and work on the buildings, designed for the accommodation of smallpox patients, which are to be constructed in accordance with the most advanced ideas, has been begun. Dr. Martin is at present considering the plans for the diphtheria and scarlet fever wards.

GENERAL

Statement of Mortality in Chicago, Ill., for the Week Ending July 30, 1904, compared with the preceding week and with the corresponding week of 1903; death rates computed on United States Census Bureau's estimated midyear populations of 1,932,315 for 1904 and of 1,873,880 for 1903:

	July 30, 1904.	July 23, 1904.	Aug. 1, 1903.
Total deaths, all causes	450	538	506
Annual death rate per 1,000	12.17	14.54	14.08
By sexes—			
Males	256	290	292
Females	194	248	214
By ages—			
Under 1 year	128	151	138
Between 1 and 5 years	36	61	62
Over 60 years	85	81	66
Important causes of death—			
Acute intestinal diseases	97	118	121
Apoplexy	14	9	9
Bright's disease	31	33	28
Bronchitis	1	4	10
Consumption	37	66	39
Cancer	18	19	24
Convulsions	6	7	4
Diphtheria	4	4	5
Heart diseases	34	26	27
Influenza	0	0	0
Measles	1	2	2
Nervous diseases	17	21	31
Pneumonia	31	25	40
Scarlet fever	2	1	3
Suicide	9	17	6
Sunstroke	2	17	0
Typhoid fever	9	9	7
Violence (other than suicide)	36	32	31
Whooping cough	5	3	1
All other causes	*96	125	118

* Including 2 deaths from tetanus, not due to 4th of July accidents.

Chicago is the most healthful large city on earth. It is especially the best in which to be born—as witness the following figures of under 5 years mortality:

	Total deaths.	Under 5 deaths.	Proportion of under 5 to total.
1894	23,892	11,017	46.1
1895	24,219	10,452	43.1
1896	23,257	9,713	41.7
1897	21,809	8,546	39.2
1898	22,793	8,135	34.7
1899	25,503	8,880	34.8
1900	24,941	8,283	33.2
1901	24,406	7,488	30.8
1902	26,455	8,027	30.3
1903	*28,914	8,269	28.6

* Including 561 Iroquois Theatre fire victims.

These figures show a decrease of 37.9 per cent. in the child mortality of the last decade and for the first six months of the current year the proportion of under 5 year deaths to total deaths is only 24.01 per cent., or 47.9 per cent. lower than in 1894.

Dr. Alfred W. Anderson, of Lakewood, O., has been elected health officer to replace Dr. A. E. McClure.

Bequests in Malden, Mass.—By the will of the late James Pierce, the first mayor of Malden, the Malden Home for Aged People receives $1,000, and the Waltham Hospital $5,000.

Dr. Frank Lamb, of Glendale, O., has been appointed lecturer on physiology in the Miami Medical College of Cincinnati; he is the youngest member of the staff.

Surgical Annex to Brockton, Mass., Hospital.—Through the generosity of a well known local manufacturer, this hospital will soon have a fine surgical building to cost $20,000.

Dr. Helen Brooks, of Gloucester, Mass., has been elected physical director of the women's gymnasium at the University of Michigan, to fill the vacancy caused by the resignation of Dr. Alice Snyder.

The Southern Medical College of Atlanta is considering the advisability of opening a course of study for the special training of medical missionaries and has appointed a committee of thirty physicans and clergymen to consider the project.

Bequests in Oswego, N. Y.—Among the bequests of the late George B. Sloan, of Oswego, are: To the Home for the Homeless, $5,000; to the Oswego Orphan Asylum, $5,000; to the Oswego City Hospital, $5,000.

Physician is Imperial Potentate of the Mystic Shrine.—Dr. George L. Brown, of Ismaila Temple, Buffalo, A. A. O. N. M. S., was elected on July 14th Imperial Potentate of the order. Dr. Brown is a thirty-third degree mason according to the Ancient and Accepted Scottish Rite.

Denver Academy of Medicine.—A building permit has been issued for the building of the Denver Academy of Medicine, which will be erected on Glenarm Street, opposite the Woman's Club building. Ground for the structure was broken on July 14th.

Wayne County, N. Y., Medical Society.—At the annual meeting of this society in Lyons, on July 19th, the following officers were elected: President, Dr. Smith, of Palmyra; vice-president, Dr. Winchell, of Rose; secretary, Dr. Sheldon, of Lyons; treasurer, Dr. Veeder, of Lyons. Dr. Van Dorn, Dr. Horton, Dr. Carmer, and Dr. Myers were elected censors.

University of Colorado—A Correction.—We are informed that recently we stated incorrectly that the course of medical instruction in the medical department of this university comprised four sessions of six months each. As a matter of fact, the sessions are of nine months each, or thirty-six months in all, as has been the custom for years.

The American Neurological Association meets at St. Louis at the Planters' Hotel instead of in the World's Fair grounds, as originally planned. The sessions will last from 9 a. m. to 1 p. m. daily. A general invitation to attend is extended to the medical profession.

Mary J. Dobbins's Memorial Home.—Edward T. Dobbins, of Philadelphia, has given $500.00 and a piece of land to the Burlington County (N. J.) Children's Home Association for the purpose of establishing the Mary J. Dobbins's Memorial Home in Mount Holly.

Dr. E. M. Steger, assistant surgeon, United States Health and Marine Hospital Service, is now in charge of the medical work in connection with the immigration bureau in New Orleans. Dr. Steger relieves Dr. A. M. Stinson, who has been detailed to the hygienic laboratory at Washington, D. C.

St. Agnes's Sanitarium Training School for Nurses, Baltimore, Md.—The following received diplomas on June 16th: Margaret A. De Lawder, of Mount Airy; Rosalie C. Moulton, Katherine G. Smith, of Buffalo; Margaret G. Dudley, Anna C. Moore, and Elizabeth Spielman, of Hagerstown.

Asbury Hospital Training School, Minneapolis, Minn.—At the ninth annual commencement of the Asbury Hospital Training School, held at the Deaconess's home, 1400 Ninth Avenue S., June 29th, there were five graduates, Miss Iva Cliff, Miss Margaret Gibbs, Miss Mary Christopherson, Miss Alice Brethorst, and Miss Marion McVean.

The Baltimore and Ohio Association of Railway Surgeons has elected the following officers: Dr. J. S. Hedges, of Brunswick, Md., president; Dr. J. W. Russell, of Mt. Vernon, Ind., and Dr. T. F. Thomas, of Garrett, Ind., vice-presidents; Dr. G. A. Davis, of Summit Point, W. Va., secretary and treasurer.

Hôtel-Dieu, Chicago.—The carpenter's contract has been awarded by the Reverend Bernard P. Murray, pastor of St. Bernard's parish, for the Hôtel-Dieu, a hospital about to be built at the northeast corner of Harvard Avenue and Sixty-fourth Street. It will have four stories and an attic, with a frontage of 225 feet, of fireproof construction, with Georgia marble fronts, and will cost $250,000.

The Chicago Hospital at 452 Forty-ninth Street, being now completed, has been formally transferred by the Chicago Hospital Building Company to the Chicago Hospital (incorporated) for $135,000. The building is a six story structure on a site 75 by 131 feet, 110 feet east of Cottage Grove Avenue. The Merchants' Loan and Trust Company is trustee on a loan of $40,000 for five years at 5 per cent. on the property.

A Bequest to the Charity Hospital, New Orleans.—William M. Smith, a levee worker, has willed to the Charity Hospital $1,075, which he is said to have deposited in a bank at St. Francisville, La. Smith knew that he was about to die from the effects of a kick in the abdomen received from a mule, and, as he had no relatives, he wanted to leave the money to the sisters. They would not receive it and he made a will leaving it to the hospital fund. Smith died and his remains were interred in New Orleans. He was a native of Pennsylvania and worked on the levees near Bayou Sara.

Punton Sanitarium, Kansas City, Mo.—Dr. John Punton, superintendent of the Punton Sanitarium or Home for Nervous Invalids, at Kansas City, Mo., is making a large addition to the sanitarium building in response to an increased demand for accommodations by patients. There is also being built a large extension to the verandas, which will be used by the guests for a place of recreation.

Nurses' Handsome Home for Buffalo.—The nurses of the Buffalo General Hospital are to be congratulated upon their new home in High Street, which is nearly completed, as it is to be the finest building of the kind in Buffalo, and there is none better in the State. The formal opening will take place late in September on the evening when this year's class of trained nurses is to graduate. The building cost $31,000, and will accommodate 65 nurses. It will have a library stocked with medical books and general literature; an assembly hall for lectures and reunions; and a gymnasium. There is also to be a fine roof garden, whence an unobstructed view of the city may be obtained, owing to the height of the hospital site. The dinner room is in the hospital building. The building will be heated by steam. The superintendent of nurses will have a suite of three rooms, consisting of sitting, bed, and bathrooms, and the gymnasium will have several shower baths for the nurses' use.

The Practitioners of Indian Territory.—The Chickasaw medical board of examiners met at Ardmore, I. T., on July 18th, and report the following from their meeting held there the first Monday in this month. There were 168 diplomas submitted for approval, which have not been acted upon. There were thirty-five physicians examined, out of whom the board finds that twelve have passed a successful examination, and their names are as follows: L. E. Self, E. F. Lewis, M. A. Beeler, L. S. Kennedy, W. H. McKinney, M. Manering, W. H. Blankenship, S. A. Heflin, S. N. Earp, C. A. Thomas, F. J. Roemer, and J. A. Pendleton. Twenty-three failed to pass a satisfactory examination, and, if they so desire, they will have an opportunity of standing another examination on the first Monday in October at Chickasaw. Still another special meeting will be held at Paul's Valley the first Monday in November. President of the board, Dr. J. C. McNees, said that he was of the opinion that perhaps 150 more doctors in the Chickasaw nation will have to undergo an examination, and maybe 100 more diplomas would be presented. The law prohibiting the practice of any physician in the Chickasaw nation without first being approved by this board takes effect on October 1st.

Pith of Current Literature.

ZENTRALBLATT FUER GYNAEKOLOGIE.

June 11, 1904.

1. Pathological Histology of Chronic Oophoritis, By C. PINTO.
2. Psychosis During Pregnancy, Abortion, Cure, By H. TREUB.

1. **Chronic Oophoritis.**—Pinto thinks, from his study of a large number of cases, that the proper division of cases of chronic inflammation of the ovary should be the diffuse, and the cortical varieties. He disagrees with Martin, who regards all cases of chronic oophoritis as interstitial. The ovary can become chronically inflamed by contiguity from a previous disease of the tube, or by the entrance of the pathogenic agents into the hilum of the ovary by way of the blood or lymph. As contributing causes to the condition, Pinto mentions gonorrhœa and the puerperal infections, the disturbances of menstruation, perversions of the sexual act, chlorosis, and pelvic tumors.

2. **Melancholia During Pregnancy.**—Treub records a case of melancholia developing during pregnancy in a young multipara. Her condition became so serious that Treub decided to end the pregnancy in the fourth month. This was done and was followed by a complete cure. Treub says his experience, although limited, teaches him that abortion in such cases is indicated and is very often followed by a cure, an opinion in which he frankly confesses himself at variance with most psychiatrists.

June 18, 1904.

1. Physiology of the Uterus, By K. FRANZ.
2. Two New Cases of Restitution of the Vagina by Transplantation of the Anus and Rectum, By W. F. SNEGUIREFF.

1. **Physiology of the Uterus.**—Franz has made careful experiments upon the contractility of the uterus, in the case of rabbits having the organ in the abdominal cavity. He finds that it is easily excited to contraction mechanically, thermally, and by the galvanic and faradaic currents. Spontaneous contractions were seen when it was withdrawn from the abdomen and suspended. The virgin uterus is the least irritable, the pregnant uterus more so than the non-pregnant. The excised rabbit uterus is weakly sensitive to the electrical current, especially to the faradaic; but it is very responsive to thermal stimuli. Franz finds that the excised human and rabbit uteri differ in no essential way as to their electrical excitability. Chloral diminishes the excitabilty of the retained uterus, while ergotin increases it, both drugs being administered hypodermically; atropine seems to have no influence while nicotine causes strong and lasting contractions.

2. **Formation of New Vagina.**—Sneguireff reports two cases in which he formed a vagina where none, or only a rudimentary one, existed by employing the lower part of the rectum and the anus. He found that the " third sphincter " was sufficiently resistant to enable the patient to control her fæces. [The operation is an extensive one, and its details are not suitable for a short abstract.]

PRESSE MEDICALE

May 25, 1904.

Pruritus. By TRÉMOLIÈRES.

Pruritus.—Trémolières points out the difficulty of giving an accurate description of itching and similar sensations. The skin has two kinds of sensitiveness; a general sensation which, when exaggerated, becomes pain, and a special, which is comparable to the sense of touch. The writer maintains that there is no essential difference between the sensations produced by foreign bodies and those which are purely subjective. He distinguishes between pure pruritus, a physiological phenomenon common to many animals besides man, and the pruritus which is associated with some disease. There are degrees of itching from the slight forms which scratching relieves to the graver varieties which scratching aggravates sometimes to the point of producing frenzy in the patient. Scratching, in the writer's opinion, is as important a cause of many skin lesions as the initial central nervous disturbance, and one that has not been fully studied.

May 28, 1904.

1. Resipratory Insufficiency. Treatment by Gymnastics and Respiratory Reeducation, By ROSENTHAL.
2. The Radioactivity of the Waters of Plombières, By HAMAIDE.

1. **Respiratory Insufficiency.**—Rosenthal substitutes for the old fashioned gymnastics, unvarying in all cases, systematic respiratory movements in various positions, accompanied by passive movements of the trunk, arms, and legs, then by active movements of the body and limbs, and finally by respiratory exercise during walking, speaking, reading, writing, and the decubitus of rest. Massage of the chest and abdomen is a valuable accessory. Breathing must be exclusively nasal, and the diaphragm must be aroused from its usual inertia. A slight coryza sometimes follows the first exercises (see Therapeutical Notes). Fatigue is common, but soon disappears. An essential point is to ensure regularity in breathing which should be slow and complete.

June 1, 1904.

1. Massage of the Heart, By D'HALLUIN.
2. Elastic Ligature of the Wrist in Radial Sphygmomanometry, By BAYEUX.

1. **Massage of the Heart.**—D'Halluin states that Tuffier in 1898 was the first to perform cardiac massage to resuscitate a patient apparently dead. The writer recalls the various experiments made on animals by Brown-Séquard, Laborde, Mayer, and others, and the rare cases of resus-

citation among human beings; he also details a few successful experiments on dogs performed by himself. Among the causes of failure he mentions pneumothorax, insufficiency of artificial respiration, organic changes, fibrillary trembling of the heart (the principal obstacle to resuscitation). The passage of a high tension current of 240 volts through the animal's body will prevent the trembling, and an intravenous injection of 15 grains of potassium chloride has the same effect. Pulmonary insufflation should always be tried along with cardiac massage.

2. **Radial Sphygmomanometry.**—Bayeux has found that an elastic ligature placed around the wrist during the application of any sphygmomanometer greatly facilitates correct reading, and the device being simple is instantly applicable under all circumstances.

June 4, 1904.

1. The Question of Seborrhœa, By SABOURAUD.
2. Physiology of the Electric Current; Its Properties, By ZIMMERN.

1. **Seborrhœa.**—Sabouraud states that what used to be known as pityriasis simplex capitis is a thoroughly differentiated chronic epidermic mycosis, usually of the scalp. It may become infected and take on new characteristics, becoming seborrhœic. In hairy regions, pityriasis paves the way for seborrhœa; after years of simple pityriasis, seborrhœa of the scalp supervenes, producing ordinary masculine baldness. In regions devoid of hair, seborrhœa precedes pityriasis.

LYON MEDICAL.

May 22, 1904.

The Diagnosis of Syphilis at Birth; Method of Protecting Wet Nurses, By GAILLETON.

Diagnosis of Syphilis.—Gailleton recalls the daily question whether a newly born child is healthy and may be safely given to a wet nurse. In inherited syphilis all three stages of the disease may be noted simultaneously, or there may be only a cachexia; these phenomena are rarely noted before the second week. We may find, however, at birth syphilides, specific coryza, profound nutritive disturbances, a heavy soft, or friable placenta, splenomegaly, jaundice, the characteristic look of old age. The parents should always be carefully examined and questioned, when they are known, and possible ignorance of any infection should be borne in mind. When there is the slightest doubt, the mother must nurse or the bottle be resorted to. Other points in the paper concern conditions peculiar to France.

May 29, 1904.

1. Experimental Researches on Exclusion of the Kidney, By GAYET and CAVAILLON.
2. Two Cases of Phlebitis of Paradoxical Localization, By MOREAU and DUROUX.
3. A Case of Syphilitic Reinfection in a Diabetic, By MOLLE.

1. **Exclusion of Kidney.**—Gayet and Cavaillon gathered from their experiments that an aseptic ligature of the ureter is well borne; that total ligature of the pedicle gives the most complete atrophy; injection into the kidneys of fatty substances hastens inflammation and subsequent sclerosis, solidifiable substances (paraffin-petrolatum), giving the best results; and Koch's bacillus, after four months' sojourn in an isolated kidney, is still virulent. A great benefit of the operation is to preserve the bladder from infection; besides its uses in sarcoma, pyelonephritis, and renal tuberculosis.

2. **Paradoxical Phlebitis.**—Moreau and Duroux ask why infected varicose veins should appear in the lower extremities after operations on other parts of the body and cite two cases of operations for inguinal hernia in which the phenomenon supervened. They believe infection was carried through the epigastric veins with which anastomose the obturator veins. The spermatic veins and the lymphatic system may have acted as channels. The writers think there was an antecedent latent varicosity predisposing to infection.

3. **Syphilitic Reinfection in a Diabetic.**—Molle's case was in a commercial traveler, aged thirty-two years, who had a chancre in 1883 and took specific treatment for some seven months. He married, but his wife presented no signs of infection, save that she aborted twice at four months. Glycosuria was noted in the male patient in 1891. In 1898 a second chancre appeared and Molle diagnosticated a genuine reinfection of syphilis, the usual secondaries developing in the typical way, although the attack was much milder than the first. The diabetes in this case was not due to the syphilis, but coexisted. Molle, after careful bibliographical research, declares this case to be unique.

RIFORMA MEDICA.

May 18, 1904.

1. A Contribution to the Study of Gonorrhœal Epididymitis, By FLORIO SPRECHER.
2. A Congenital Anomaly of the Heart in a Pregnant Woman, By A. FARRARO.
3. A Case of Uræmic Psychosis with Choreiform Symptoms (*To be continued*), By F. MAGGIETO.

1. **Gonorrhœal Epididymitis.**—Sprecher reports a case of gonorrhœa complicated by epididymitis of a very acute character. After the symptoms of this complication had subsided irrigations were used, but after sexual intercourse, two months later, an acute prostatitis occurred, followed by a second attack of epididymitis. The case is noteworthy because the gonococcus was found in all the specimens of urethral pus, as well as in the serous liquid of the tunica vaginalis and the pus from the abscesses in the epididymis and the prostate. The gonococcus, therefore, was the cause of the inflammation of the tunica.

3. **Uræmic Psychosis.**—Maggiato reports a case of uræmia in a girl, aged seventeen years, which was accompanied by unusual nervous and mental symptoms. Seven days before admission

the patient began to suffer from insomnia, lack of appetite, and marked psychomotor excitement. On admission she presented the involuntary motions of chorea, especially in the left arm a state of motor excitement, inability to talk and to perform any voluntary act. The general nutrition was deficient but the facial expression was intelligent. There was no fever, and the patient seemed to understand everything that was spoken. The general condition of the patient gradually grew worse, but the choreiform movements began to disappear. Fibrillar contractions appeared in the muscles of the face. On the last day before death, swallowing became difficult, the temperature was subnormal, and the pulse small and irregular. The autopsy showed œdema of the brain, a fatty liver, an enlarged spleen, and an acute parenchymatous nephritis. The author concludes that this case was one of uræmia accompanied by psychosis and by choreiform movements. He thinks that the same toxic substances which produce the grave symptoms of uræmia, in this instance induced the choreiform movements.

May 25, 1904.

1. Is a Median Incision or an Oblique Cut on the Right Side Indicated in Cases of Suspected Appendicular Peritonitis? By A. Signorelli.
2. A Contribution to the Hernia of the Ureters, By S. Rolando.
3. Congenital Anomaly in the Heart of a Pregnant Woman (*Concluded*), By A. Ferraro.

1. **Oblique Incision in Appendicular Peritonitis.**—Signorelli says that the oblique incision should be used instead of the median in cases of peritonitis due to appendicitis. Even in cases in which the diagnosis of appendicitis is not certain, but where it is suspected that the peritonitis had its origin in the appendix, he considers the lateral or oblique incision less dangerous than the median, and points out that, if, after the former incision is made and nothing is found in the appendix, there is always time to make another median incision.

2. **Hernia of the Ureter.**—Rolando reports a case of crural hernia, in a woman aged twenty-seven years, in which the ureter was found in the sac during the operation. A loop of the ureter had passed through the hernial ring, and when it was recognized it was pushed back into the abdomen. But few cases of this kind have been recorded.

3. **Congenital Anomaly of the Heart in a Pregnant Woman.**—Ferraro reports a case of a woman who had been suffering from cyanosis from birth, and who died during pregnancy. The autopsy showed the presence of a congenital malformation of the heart (incomplete development of the interventricular sæptum). The pregnancy without any doubt caused the death of the patient, and her life might have been saved if the gestation had been interrupted in time. The diagnosis of congenital heart disease was very easy in this case.

ROUSSKY VRATCH.

May 29, 1904.

1. A Few Words Concerning Proctoscopy, By S. B. Fedoroff.
2. The Rôle of Cell Poisons in Diseases of the Eye, Particularly in the Causation of Sympathetic Ophthalmia. A Preliminary Communication, By S. S. Golovine.
3. A Severe Form of Glandular Fever, By A. A. Kissel.
4. Experimental Infectious Interstitial Inflammations of the Liver Following a General Infection of the System, By N. N. Kirikoff.
5. Cysts and Pseudocysts of the Pancreas. A Case of Traumatic Hæmorrhage Into the Cavity of the Lesser Omentum (*Concluded*), By A. U. Duzhilny.
6. The Treatment of Diseases of the Lacrymal Passages by Electrolysis (*Concluded*), By A. V. Lotine.
7. Suppuration of the Rectus Abdominis Muscle in Typhoid Fever, By V. M. Mintz, and G. F. Danilovitch.
8. The Organization of Obstetric Aid in St. Petersburgh (*To be concluded*), By V. V. Zheltoukhine.

1. **Proctoscopy.**—Fedoroff pleads for the wider application of the proctoscope in diagnosis. He claims to have developed the technics of proctoscopy after the appearance of the anatomical researches of Otis and Kelly. The proctoscope hitherto employed consisted of metallic tubes with an obturator. The author found, both in clinical work and by experiments upon cadavers, that it was impossible to see beyond the sigmoid flexure by means of the straight proctoscopes. He calls attention to the fact that the depth to which a proctoscope is introduced into the duct does not necessarily indicate how far the intestine may be inspected; for the instrument enters to the extent which is permitted by the length and elasticity of the mesentery of the sigmoid, the lower bend of which is drawn over the proctoscope like the finger over a glove. The end of a proctoscope may be felt through the abdominal wall almost under the ribs, and yet it may not have left the bend of the sigmoid. Fedoroff, in inspecting the sigmoid, uses metallic proctoscopes without handles, but with a scale in centimetres on the outside of the instrument. The source of light is Casper's lamp, which is not connected with the proctoscope, except in cases in which an operation is to be performed followed by an irrigation, when a connecting cylinder is introduced between the lamp and the proctoscope. The instrument is introduced in the knee-elbow position to a depth of about ten centimetres, carefully avoiding contact with the promontory of the sacrum. In this manner the beginning of the sigmoid will be reached. The lamp is next introduced and the instrument pushed further, under the guidance of the eye, avoiding obstructing folds of mucous membrane. The entire rectum is inspected by gradually withdrawing the instrument and from time to time wiping away mucus, etc., from the rectal surface. The use of this instrument is painless and easy.

2. **Cell Poisons in Sympathetic Ophthalmia.**—Golovine calls attention to the fact that in spite of the many theories held regarding sympathetic ophthalmia, we are still in the dark as to the true causation of this affection. The theory which he offers is as follows: After an injury to the eye, especially in the region of the ciliary body and under certain conditions (with or without the aid of bacteria), there takes place a destruction of the cell of the ciliary body which is followed by the development of special products of decomposition, or cell toxines. These toxines enter the blood, where,

in the majority of cases, they are neutralized, thanks to the presence of antitoxine. When the antitoxic functions are weakened, the cell poisons are transmitted by the blood to the opposite eye, where they produce a specific toxic effect upon the ciliary bodies. Bacteria present in the opposite eye may play a part in the inflammation of this organ, but their rôle is merely secondary. In this preliminary note the author reports a series of experiments on animals, undertaken with a view of demonstrating the possibility of developing specific cell poisons from the ciliary body. He suggests that cell poisons may be the cause of a number of non-bacterial diseases of the eye, especially of some forms of chorioiditis, in which there is a loss of pigment. It is possible that an antipigmentolysin may be found which could be used in pigmentous retinitis.

3. **Severe Cases of Glandular Fever (Pfeiffer's Drüsenfieber).**—Kissel reports two cases of glandular fever characterized by marked severity, which are rare inasmuch as this disease is generally very mild. The interest in these cases is chiefly on account of the difficulty in diagnosis which they presented. The author says that in the second case he was in doubt as to the diagnosis until he heard of the sudden fall of temperature, which he considers characteristic.

7. **Suppuration of the Rectus Abdominis Muscle in Typhoid Fever.**—Mintz and Danilovitch report a case of suppuration of the straight muscle of the abdomen in a patient with typhoid fever. There were swelling and the usual local symptoms of suppuration over the muscles, and a median incision became necessary, owing to the marked rise in temperature, when the subcutaneous tissues were found infiltrated. On opening the anterior layer of the sheath of the rectus, the operator's hand entered into a cavity of the size of a fist, whence issued a brown fluid in which floated particles of tissue. The typhoid bacillus was found in the fluid and in the floating portions of tissue. The authors assume that a hæmorrhage occurred in the muscle, and that the typhoid bacillus grew in the cavity thus formed, producing suppuration therein. They think that their case shows that the typhoid bacillus may induce suppuration without the assistance of mixed infection.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

July 23, 1904.

1. The Present Status of Otology, and Some Suggestions for Its Betterment: Chairman's Address Before the Section on Laryngology and Otology, By John F. Barnhill.
2. Secondary Manifestations of Hypernephromas, By Walter L. Bierring, and Henry Albert.
3. The Character of Chromatophores, By Leo Loeb.
4. Diabetes Mellitus: Report on a Case Including a New Method of Prognosis, By Arthur R. Mandel, and Graham Lusk.
5. A Case of Darier's Disease: Psorospermose Cutanée Folliculaire Végétante or Keratosis Follicularis (White), By David Lieberthal.
6. Report of a Case of Vincent's Angina and Stomatitis, By G. C. Crandall.
7. Pathogeny of Osteomalacia or Senile Atrophy, By Eugene S. Talbot.
8. Antistreptococcus Serum, By D. H. Bergey.
9. Continuous Acrodermatatis: An Instance Where It Was Controlled by the Röntgen Ray. By Douglass W. Montgomery.
10. Tetanus: Its Period of Incubation and Its Pathology, By Albert Woldert.
11. Pelvic Abscess: A Case Report, with Comments, By Philip D. Bourland.

3. **Chromatophores.**—Loeb says that the pigment of chromatophores originates in the epidermis and that the production of melanin is a peculiarity of certain epithelial cells which is preserved after transplantation to localities where only non-pigmented cells exist. It is not unlikely that the pigment itself is due to an oxidation and condensation, processes in various decomposition products of cell proteids caused by fermentation.

6. **Vincent's Angina.**—Crandall reports one case. The disease was at first confined to the throat, but later spread over the mouth by direct inoculation, the patient having his teeth cleaned by a dentist during the illness.

9. **Acrodermatitis.** — Montgomery describes three forms—a vesicular, a pustular, and a form in which both vesicles and pustules occur. The case reported by the author was of the vesicular type and rapidly subsided after nine exposures to the x ray.

10. **Tetanus.**—Woldert reports one case of tetanus in which the period of incubation could not have been more than seven days. The toxine of tetanus travels centripetally along the motor nerve trunks.

July 30, 1904.

1. Secondary Abdominal Operations, By Lewis S. McMurtry.
2. Prurigo (Hebra) as Observed in the United States. By William Thomas Corlett.
3. A False or Cicatricial Keloid, By A. Ravogli.
4. A Comparison of Phototherapy, Radiotherapy, and High Frequency Therapy in Skin Diseases, By C. W. Allen.
5. Developmental Defects of the Skin and Their Malignant Growths (Discussion only).
6. The Consideration of Late Hereditary Syphilis, By R. R. Campbell.
7. Has Influenza Been a Causative Factor in the Increase of Appendicitis? By Philip Marvel.
8. Notes on Vaccine, By Charles T. McClintock.
9. Professor Kitasato's Present Work By Miajima.
10. The Local Use of Quinine in Hay Fever, By Henry D. Fulton.
11. The United States Public Health and Marine Hospital Service. Part I: A Historical Sketch. (a) From Establishment in 1796 to Reorganization in 1871 (*To be continued*).
12. Travel Notes. II: Is a Trip to Europe Worth Its Cost to the Medical Man? By Lewellys F. Barker.

1. **Secondary Operations.**—McMurtry considers only the prophylaxis. He endeavors to indicate the precautions that should be taken in order to avoid the postoperative occurrence of hernia, fistula, sinus, adhesions, etc.

2. **Prurigo.**—Corlett asserts that the prurigo of Hebra does occur in the United States and that it is met with fairly frequently. He reports three cases of the affection that have come under his observation.

3. **Cicatricial Keloid.**—Ravogli reports one case in considerable detail. Careful microscopical studies were made of pieces of the growth and the histological findings are illustrated and described.

4. **Photo, Radio, and High Frequency Therapy.**—Allen concludes: (1) In the vast majority of cutaneous affections the Röntgen ray is of greater utility than either the actinic or high frequency methods. (2) In lupus the Finsen method, though tedious and disagreeable, is efficacious. The combined ray and high frequency spark may prove to be equally good. (3) The actinic method is less beneficial in cancer than the Röntgen ray. (4) The high frequency method is exact, no more disagreeable than the actinic, and for small lesions of epithelioma, lupus, lupus erythematosus, and many skin diseases gives quicker and better results. (5) All three can be advantageously combined for the different stages and phases of a large class of affections.

7. **Influenza and Appendicitis.** — Marvel reaches the following conclusions: (1) Appendicitis has increased in the past five years much more rapidly than in either of the previous five year periods studied. (2) The accessory cavities are more frequently attacked, and when diseased, more likely to be aggravated by influenza, than by other diseases. (3) There is more than a possibility of the existence of chronic intestinal influenza, therefore, a probability of its causative relation to appendicitis.

8. **Notes on Vaccine.**—McClintock reports a number of experiments he has conducted upon various animals for the purpose of settling as far as possible certain disputed facts regarding vaccine. His conclusions, abbreviated, are: "(1) Many of the domestic animals are susceptible to smallpox vaccine. (2) The time of development varies notably, from three days in a guinea pig to from nine to eleven days in a dog. Vaccine grown for seventeen generations on guinea pig, where it develops in three to four days, when inoculated on heifers or dogs, takes the usual time for development in those animals. (3) In guinea pigs and rabbits, full grown animals are decidedly more susceptible than young ones. (4) Vaccinal immunization in cattle is not to any notable extent transmitted to the fœtus. (5) A great many chemicals have a destructive or germicidal action on bacteria, but in the list of chemicals thus far tried, none has been found which shows any special or specific action against the vaccine organism. (6) The vaccine organism is not killed by glycerin, chloroform, chloretone, potassium cyanide, carbolic acid, or quinine, when these chemicals are not used in too great strength. (7) Contrary to the opinion of many observers, we have not found that the vaccine organism decreases in virulence by repeated inoculation on calves."

10. **Quinine in Hay Fever.**—Fulton's treatment for hay fever consists of the employment of a saturated solution of quinine sulphate, in sterilized water, as a nasal spray, and the application to the mucous membrane of the nares of an ointment consisting of quinine and petrolatum in the proportion of 30 grains to the ounce, the applications being made every four or six hours.

BOSTON MEDICAL AND SURGICAL JOURNAL.

July 28, 1904.

1. Congenital Dislocation of the Hip. (a) Report of Orthopædic Staff of Boston Children's Hospital Based Upon Observations on 144 Cases,
By E. H. BRADFORD, R. W. LOVETT, E. G. BRACKETT, AUGUSTUS THORNDIKE, JOHN DANE.
(b) Addendum, . By E. H. BRADFORD.
(c) Report of Committee of Boston Society for Medical Improvement,
By DAVID W. CHEEVER, C. B. PORTER, CHARLES F. PAINTER.
2. A Meteorological Study of the Winter of 1903-4, By CARROLL E. EDSON.
3. Implantations of Silver Filigree for Cure of Large Ventral Hernia. Report of Two Cases, By H. B. PERRY.

1. **Congenital Dislocation of the Hip.**—(*a*) Observations on 144 Cases.—The 144 cases were treated in various ways. The authors first discuss the evolution of the treatment of congenital dislocation and then review the results that have been obtained at the Boston Children's Hospital during the past twenty years. The cases are divided according to dates of treatment. Thus: 1884 to 1896, twenty-one cases were treated, all resulting unsuccessfully; 1896 to 1902, fifty-four cases: successful, 12; unsuccessful, 13; result unknown, 29; 1902, twenty-two cases: successful, 8; unsuccessful, 4; relapsed, 3; anterior transposition, 7; 1903, thirty-three cases: successful, 22; unsuccessful, 5; transposition, 6. The authors conclude: (1) In either single or double dislocation, under ten years of age, complete reduction is possible and relapses may be prevented in fully sixty per cent. of all cases. Either manipulation or incision is a suitable means for obtaining reduction. (2) In the more difficult cases incision and curettage of the acetabulum are probably destined to be used more frequently in the future than at present. (3) In ordinary cases forcible reduction, by manipulation, is the suitable method. (b) Addendum.—Bradford explains the method by which the committee, whose report follows, was selected. (c) Report of Committee.—Cheever, Porter, and Painter made an independent examination of 21 of the cases recently treated in order that an unbiased opinion might be available regarding the results obtained. Their findings confirm the claims of the orthopædic staff of the Children's Hospital.

2. **A Meteorological Study.**—Edson publishes a comparative study of the winter climates of Boston, New York, Philadelphia, Buffalo, Chicago, and Denver. The object of the paper is to show that Denver, which enjoys an equable and dry climate, is a more suitable place for the treatment of tuberculosis than the various other cities named.

3. **Ventral Hernia.**—Perry reports two cases of ventral hernia cured by operation and in which silver filigree was used to cover the ring.

MEDICAL RECORD

July 30, 1904.

1. Age and Youth in Medicine, By W. W. Keen.
2. Observations on Radium, By Max Einhorn.
3. Tic, By Charles J. Aldrich.
4. Some Phases of Chronic Laryngitis, By Z. L. Leonard.
5. The Recent Progress in Genitourinary Surgery, By Martin W. Ware.

1. **Age and Youth in Medicine.**—Keen reviews briefly the progress that has been made in medicine since he started its study in 1860. The paper was delivered as an address at the commencement of the medical department of Cornell University.

2. **Radium.**—Einhorn makes some observations on the method of radium treatment, its physiology and diagnostic value, and on the therapeutic results he has obtained in the treatment of carcinoma of the œsophagus. The author's radium measure box and radiodiaphane are described and illustrated. Nine cases of œsophageal cancer treated with radium are reported. Six of these cases showed some improvement with regard to the stricture. Three cases were not improved. None of these latter cases received adequate treatment. Pain was diminished in some of the cases. The author believes that this method of treatment deserves further trial.

3. **Tic.**—Aldrich deplores the custom of labeling many forms of tic as varieties of chorea. According to the author, there are just two kinds of chorea: Sydenham's chorea and Huntington's chorea. The author proposes classifying the various varieties of tic under two main heads: (1) involutional tic, or the so called senile tic of the older writers, and (2) evolutional tic. Eleven cases of tic are reported in detail and briefly discussed.

4. **Chronic Laryngitis.**—Leonard reports four cases of chronic laryngitis due to different causes. The object of the paper is to call attention to the fact that while chronic catarrhal inflammations of the larynx are not incurable, yet they can only be satisfactorily managed by taking a broad view of the ætiology of the affection and treating mainly the causative factors.

5. **Genitourinary Surgery.**—Ware devotes a few words to each of the newer methods of treating various genitourinary affections. Among others the following affections are mentioned: Extrophy of the bladder, hypospadia, undescended testicle, hydrocele, enlarged prostate. The value of endoscopy and the x ray, as aids to diagnosis, are dwelt upon.

MEDICAL NEWS.

July 30, 1904.

1. Eye Strain and the Psychoses, By Charles L. Dana.
2. Migraine and Sick Headache, By Colman W. Cutler.
3. The Relation of Epilepsy, Chorea, and Other Motor Disturbances of the Nervous System to Eye Disease, By B. Sachs.
4. The Eye Symptoms of Hysteria, Neurasthenia, and the Traumatic Neuroses, By Ward A. Holden.
5. Intrahepatic Cholelithiasis (*To be continued*), By Edwin Beer.
6. The Value of a Knowledge of Abnormal Mobility of the Iris as an Aid in Diagnosticating Diseases of the Nervous System, By D. Kerfoot Shute.

1. **Eye Strain and the Psychoses.**—Dana concludes: "Perhaps after all the most real psychosis connected with eye strain is that shown by a group of enthusiastic oculists who have become obsessed with the idea that eye strain forms the background of most pathological conditions, and, like Bishop Berkeley and his tar water, think that the whole material universe is nothing and eye strain is everything. With due respect also to my learned colleagues, I should suggest that 'glassing' had become something of, at any rate, a minor psychosis."

3. **The Relation of Epilepsy, Chorea, Etc., to Eye Disease.**—Sachs concludes: "Summing up all that can possibly be said with due regard to truth, it may be stated that the relationship between ocular affections and epilepsy, chorea and convulsive tic, may be a close one in the minds of some 'faddists,' but it must remain a very remote one in the minds of those who have no special axes to grind and no particular therapeutic territory to exploit."

6. **The Mobility of the Iris as an Aid to Diagnosis.**—Shute has made an extensive search of the literature in order to determine the value of a knowledge of abnormal pupillary actions in arriving at a correct diagnosis of either the kind or the position of any intracranial lesion. He concludes that Swanzy is wrong and that a careful study of the pupillary reactions and condition is often capable of being of the greatest diagnostic utility.

AMERICAN MEDICINE.

July 30, 1904.

1. The Treatment and Control of the Tuberculous Patient in His Home, By Lawrence F. Flick.
2. Œdema, By S. J. Meltzer.
3. The Immediate Repair of Lacerations of the Perinæum, with Special Reference to Placing the Sutures in Position Before the Laceration Takes Place, By A. Lapthorn Smith.
4. Carcinomatous Transformation of Ulcer of the Stomach, By John Dudley Dunham.
5. Treatment of Gonorrhœa: A Clinical Study. By Henry T. Byford.
6. On the Persistence of Certain Racial Characteristics, By Pearce Kintzing.

1. **Tuberculosis.**—Flick, who is director of the Phipps Institute of Philadelphia, considers the treatment of the tuberculous patient on the broadest possible lines. He asserts that climate has practically nothing to do with the successful treatment of the disease, which is fortunate, since the majority of people suffering from tuberculosis must be treated in their own homes or nowhere. The author is optimistic. He asserts that the disease is about to be exterminated from the earth. This happy state of affairs is to be brought about by two means chiefly. (a) The education of the profession as well as of the public in the art of handling the disease. (b) The proper and systematic care

of the tuberculous patient mainly through the aid of special dispensaries and hospital wards.

3. **Lacerations of the Perinæum.**—Smith believes in the immediate repair of all lacerations of the parturient tract. He advises repairing at once even the smallest lacerations. He asserts his belief that the slight rise of temperature, so often noted a few days after delivery and which has been called milk fever, is due not to the advent of the milk, but to septic absorption from minute vaginal or perineal tears. The greatest difficulty in repairing the pelvic floor is met when one tries to bring together the divided ends of the levator ani muscles and pelvic fascia. To obviate this difficulty and secure perfect coaptation the author advises inserting two or three silk worm gut sutures before the laceration takes place. The author asserts that in the majority of cases inspection of the perinæum will enable one to determine if a laceration is liable to occur or not. In any case, if the stitches have been applied and the laceration does not take place, no harm has been done, as they can at once be removed.

4. **Cancer of the Stomach.**—Dunham concludes that cancer of the stomach originates at the site of a simple gastric ulcer more frequently than is generally believed. For this reason, if for no other, ulcers of the stomach should be most carefully treated and patients who have suffered from them and have apparently recovered should be kept under observation for a long time. After a simple ulcer has undergone malignant degeneration medicinal treatment will only result in palliating the symptoms. Surgical treatment may reasonably be expected to prolong the patient's life.

5. **The Treatment of Gonorrhœa.**—Byford recommends treating gonorrhœa both in the male and in the female by copious and frequent injections of plain hot water. The chief objection to the treatment is the time required. It is in practice usually necessary to resort to the addition of hand injections of germicidal and astringent solutions.

6. **Racial Characteristics.** — Kintzing concludes that there is no positive sign whereby a very attenuated strain of negro blood may be asserted to exist. This is contrary to popular belief, but the author is quite sure he is correct.

LANCET.

July 16, 1904.

1. Bright's Disease and Its Varieties. (Croonian Lectures: I), By J. R. Bradford.
2. Remissions and Relapses in Insular Sclerosis, By T. Buzzard.
3. Two Cases of Hemiplegia. By T. R. Bradshaw.
4. On Vincent's Angina. By H. W. Bruce.
5. Diet in Chronic Heart Disease, By Theodor Schott.
6. The Physiological Action of the Nauheim Springs and the Indications for Their Use, Chiefly in Disorders of the Circulation. By P. C. Franze.
7. Contributions to the Study of the Action of Sea-Snake Venoms. Part I, By Sir T. R. Fraser, and R. H. Elliot.
8. On the Action of the Venom of the *Bungarus Cœruleus* (the Common Krait), By R. H. Elliot, W. C. Sillar, and G. S. Carmichael.
9. A Case of Chronic Streptococcus Endocarditis Treated by Serum Specially Prepared by Use of the Organism Obtained from the Patient. By T. J. Horder.

1. **Bright's Disease.**—Bradford, in the first of his Croonian lectures, discusses in detail the physiology of the kidneys, and the correspondence of the known facts to the phenomena observed in disease of those organs. He pays considerable attention to the question of the existence of an internal renal secretion, and concludes that there is no evidence to warrant such a belief. Further the treatment of uræmia by renal extract, even should an internal secretion exist, could not be so successful as that of myxœdema by thyreoid extract, inasmuch as the thyreoid is not known to possess any other function, whereas life cannot be maintained if the excretory function of the kidneys is seriously impaired. Suppression of the functions of healthy kidneys is not really followed by the development of ordinary uræmia. The symptoms are more comparable to those seen in calculous obstruction and described as latent uræmia.

2. **Insular Sclerosis.**—Buzzard reports a series of cases of insular sclerosis which illustrate the known fact that in a very considerable proportion of cases the course of this disease is marked by more or less frequent remissions and recurrences of symptoms. He holds that this remarkable tendency throws some light on the causation of the disease, and supports the view that the essential cause is the presence in the blood vessels of an infective agent which sets up an inflammatory process in the interstitial tissue. Were the disease due to some congenital abnormity (*e. g.*, of endogenous origin) it would be characterized by a slow and comparatively steady progress, uninterrupted by any tendency to remissions, and by the fineness of the changes observed in the structures involved. On the other hand, disease of exogenous origin, of which syphilis is the best example, remissions are frequent and the tissue changes coarse. Presumably, therefore, insular sclerosis, like syphilis of the nervous system, is infective and due to a toxine.

4. **Vincent's Angina.**—Bruce tells us that Vincent's angina is a form of pseudodiphtheria which is associated with, and probably due to, certain characteristic microorganisms. There is a necrosis of the mucous membrane, which, spreading deeply, may involve and destroy the whole thickness of the tonsil or uvula, but which never gives rise to the formation on the surface of the mucosa of a thick false membrane such as occurs in diphtheria. But in the milder cases, and in the beginning of the severest ones, the resemblance to diphtheria is very striking and the positive diagnosis can only be made by bacteriological examination. The onset of the disease is insidious, and the general constitutional symptoms are those of diphtheria. The temperature rarely goes above 101° F. It is not until three or four days after the onset that it becomes clear that a destruction of tissue is taking place, but after that time all resemblance to diphtheria is lost. If there is much loss of tissue contraction

may result, but in the majority of cases complete recovery ensues. But if the causative agent is specially virulent or the patient very susceptible, the disease may prove fatal, as in two of the ten cases reported by the author. Cultures from the throat show nothing distinctive, the pyogenic cocci being the organisms most frequently found. But if a little of the exudation is rubbed up on a slide and stained, a characteristic bacillus is seen in great numbers, and with it is frequently associated a spirillum. The relative numbers of the two vary. The "fusiform" bacillus is very long about .11 μ) and spindle-shaped, as its name implies. It does not stain by Neisser, and is decolorized by Gram. Its motility is doubtful, and so far it has not been cultivated. The spirillum is only faintly stained by the ordinary reagents, is decolorized by Gram, is motile, and has never been cultivated. Early in the disease either the bacillus or the bacillus and spirillum are found almost pure in the pseudomembrane. Animal inoculations have given indefinite results. It is interesting to note that Vincent found two similar organisms in a number of cases of hospital gangrene, or phagedæna, seen in Algiers in 1895. There is also a pathological and bacteriological analogy between Vincent's angina and ulcerative stomatitis.

5. **Diet in Heart Disease.**—Schott sums up the principal rules as to the diet in chronic heart disease, as follows: 1. Patients must avoid everything which excites the action of the heart; strong tea or coffee, or strong alcoholic liquors. 2. Everything must be avoided which embarrasses the action of the heart. Nothing should be eaten that is difficult of digestion or tends to produce flatulence, and the patient should avoid taking enough to cause distention of the stomach. Small amounts of food at short intervals is the correct thing. Tobacco should be avoided if possible. Gentle exercise in the open air should be taken for a short time after meals.

7, 8. **Snake Poisons.**—Fraser and Elliot have studied the action of the venoms of sea snakes, and conclude that they chiefly affect the respiratory mechanism, causing death by asphyxia. Motor nerve-end paresis plays a much greater part than in cobraism.

Elliot, Sillar, and Carmichael state that while the venom of the common krait of India produces symptoms similar to those of cobraism, yet they differ so much in relative degree as to make it doubtful if they can be spoken of as identical. Calmette's antivenomous serum failed to protect against the poison.

9. **Antistreptococcus Serum.**—Horder reports a case of chronic endocarditis occurring in a woman aged twenty-five years. A blood culture showed the presence of a streptococcus, and serum treatment was begun. At first commercial antistreptococcus serum was used, and later a specially prepared serum from a donkey immunized against the streptococcus obtained from the patient's blood. At no time were any beneficial results observed, and the patient finally died, having been ill for seven months.

BRITISH MEDICAL JOURNAL.

July 16, 1904.

1. On Paroxysmal Tachycardia, By J. Barr.
2. Further Facts in Favor of an Infective Element in Gout, By Chalmers Watson.
3. On the Diacetic Acid Reaction in the Urine, with Especial Reference to Gastric Ulcer, By H. D. Rolleston, and B. N. Tebbs.
4. The Incubation Period of Pneumonia, By E. M. Callender.
5. Remarks on Chronic Gastric Ulcer and Pyloric Stenosis and Their Treatment by Gastroenterostomy, By H. F. Waterhouse.
6. Hæmorrhage from a Chronic Gastric Ulcer: Operation: Recovery, By C. F. Cuthbert.
7. Ozæna (Atrophic Fœtid Rhinitis), a Cause of Gastritis, By A. Brouner.
8. An Instance of Adiposis Dolorosa in Two Sisters, By J. A. Hammond.
9. Observations on the Midwives' Act and the Teaching of Midwifery to Students, By C. J. Wright.

1. **Paroxysmal Tachycardia.**—Barr reports a case of paroxysmal tachycardia, or rapid heart action occurring in a youth aged seventeen years. The first attack was the result of a kick or blow on the epigastrium, received at football. The pulse was over 250, and remained so for a week. The abdomen was so much swollen that an exploratory operation was thought of. Recovery took place, but the patient was subsequently seen three times for similar attacks, each following a blow or over exertion. The basis of the attacks seemed to lie in a hyperdistention of the right side of the heart, which would quickly terminate the life of the patient were not the musculature in a healthy condition. The volume of blood thrown into the pulmonary artery and aorta at each systole is but small. The patient complained very little; there was no anginoid distress, no real dyspnœa, and he could move about, all due to the fact that the blood pressure was relatively high; 190 mm. of mercury as compared to a normal of 160 mm. The treatment consists in rest in bed, and the use of the nitrites to diminish peripheral resistance and equalize the amount of blood in the two sides of the heart. The patient should be encouraged to take long deep breaths, to promote the flow of blood to the lungs. Counterirritation over the heart, a brisk purgative, and dry diet are also indicated.

2. **Infectivity of Gout.**—The object of the author's paper is to prove that the *tout ensemble* of the pathological picture of chronic gout is strikingly similar to that seen in chronic infective diseases. From this point of view the presence of uric acid is regarded as the feature which gives the inflammation its specific character. The histological appearances seen in the inflamed joints, and in the bone marrow strongly suggest an infective process. The writer has previously recorded in the *B. M. G.* of January 6, 1900, a striking change in the histological appearances of the leucocytes in acute gout. The clinical features of an acute paroxysm of gout—the manner of onset, the temperature chart, the local appearances, liability to relapses, etc., suggest an acute infective disorder.

3. **Diaceturia.**—Rolleston and Tebbs state that while the presence of diacetic acid in the urine has long been known to be of the gravest import in diabetes and grave acid intoxication, yet it may occur under other conditions (gastric ulcer) without grave significance. A simple, rapid, and reliable test is Gerhardt's, in which the addition to the urine of a solution of iron chloride gives a port wine color if diacetic acid is present. The authors have studied the occurrence of the reaction in cases of gastrointestinal disturbance and especially in cases of gastric ulcer. They found the reaction in thirty-three out of thirty-five cases of gastric ulcer in women in whom feeding by mouth had been stopped. It appears that the development of diaceturia in these cases is determined chiefly by starvation, and that it appears much earlier, persists longer, and is generally more marked in women than in men. Further, apart from this particular disease, diaceturia develops more readily in the female and in children than in the adult male. Grave acid intoxication appears, moreover, to be more frequent in the female. The question arises as to whether in women with gastric ulcer there is not some underlying condition of subacidosis to account for the marked tendency to diaceturia. Further, as subacidosis is associated with cyclical vomiting, it is possible that some cases regarded as gastric ulcer may be suffering from an entirely different disease. In none of the authors' cases were there any symptoms attributable to acid intoxication (drowsiness, dyspnœa, etc.), nor was the CO_2 content of the blood diminished.

4. **Incubation of Pneumonia.**—Callender reports a series of five cases of pneumonia in which the source of infection and the definite time of exposure to the same could be definitely and accurately determined. The incubation periods varied from fifty-eight to sixty-nine hours.

5. **Gastroenterostomy.**—Waterhouse discusses the operation of gastroenterostomy as performed for chronic gastric ulcer and pyloric stenosis—the most important non-malignant affections of the stomach. He considers the operation as almost an ideal one. In simple ulcer it is chiefly indicated for repeated hæmorrhages. The author has performed the operation thirty-one times, with a mortality of two cases—6.45 per cent. With one exception, in all the cases pain and distention have entirely disappeared. Every patient operated upon for hæmatemesis was cured. In every case the preexistent constipation disappeared, and the action of the bowels became normal.

7. **Ozæna.**—Brouner suggests that in ozæna the constant trickling down into the stomach of the offensive mucus full of bacilli has a harmful effect on the mucous membrane of the stomach, and is a common cause of chronic gastritis. Ozæna is very common in the West Riding of Yorkshire, and is very frequently associated with symptoms of gastric disturbance.

Formaldehyde solution is the best local application for ozæna; it prevents the formation of crusts, and removes the offensive smell.

Proceedings of Societies.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

(Continued from vol. lxxix, page 1112.)

Stated Meeting, April 7, 1904.

The President, Dr. R. C. NORRIS, in the chair.

Dr. F. H. MAIER did not hear all Dr. Chandler's paper, but from the remarks of Dr. Norris he had gleaned the principle of his procedure in this class of cases, and he agreed with Dr. Norris that it was not one to be allowed to go unchallenged. Concerning Dr. Pryor's operation, there was no question in his mind that in a certain class of cases it was a most valuable procedure. He was inclined to think that in a certain number of systemic infections the lower pelvic cavity acted as a breeding focus from which fresh poison was sent out into the system. By opening into Douglas's cul-de-sac we undoubtedly corrected a condition that would otherwise cause the death of the patient. And these were the cases, until we had better means of satisfying ourselves that there was nothing in Douglas's cul-de-sac, in which it would be good practice to drain.

Dr. NORRIS asked Dr. Maier how he would recognize that class of cases?

Dr. MAIER replied that until we had better means of recognizing this class of cases in which we had infection in Douglas's cul-de-sac with systemic infection, and where it did not respond to expectant treatment, he thought it was well to make such an incision. He thought there was very little danger and much good could be accomplished. He remembered one case a year ago, in which the attending physician had cleaned the uterus a week before. The case was brought to the hospital, and he thought the attending practitioner had not done a clean job. On going into the uterus, however, there was nothing there. Then a vaginal incision was made and an opening into Douglas's cul-de-sac, and a lot of dirty serum was found. No cultures were made to demonstrate the organisms. The patient recovered after a protracted convalescence. In certain cases where we intuitively felt that we must do something, he felt that we could open into Douglas's cul-de-sac with little added danger. He thought the risk was worth the doing.

Dr. B. C. HIRST would like to ask these gentlemen, particularly Dr. Chandler, what proportion of cases they thought were infected in Douglas's pouch. A large experience was needed to decide this question. Dr. Hirst said that the president and himself, who had charge of large maternities and who saw scores of these cases to one that was seen by the general surgeon or the gynæcologist without experience in obstetrics, were in a position to make a statement on the subject. He had rarely seen infection in the puerperium confined to Douglas's pouch. He had to operate in a large number of these cases every year. He doubted if any clinic in America had a larger number than his. In the last three days three of the most desperate cases of puerperal sepsis were brought into the University Hospital in the ambulance. He had usually four to six such cases under observation continually. Out of a large number every year he saw a very small proportion in which the infection was localized in Douglas's pouch. When we could determine its localization in Douglas's pouch by easily appreciable physical signs, we were all agreed that colpotomy was indicated, but to do this operation as a routine measure, simply because we did not know what else to do, and felt that we must do something, was a proposal discreditable to surgery.

Dr. CHANDLER in closing the debate said that one would naturally think, after the remarks which had been made, that there would be some hesitation on his part, but so convinced was he that the operation was a logical one, that the opposition expressed only caused him to uphold it more zealously than had such opposition not manifested itself.

In regard to the criticism of Dr. Boyd he would state that the text of his paper contained the answer. It was that the operation was advised in severe cases, or cases that in one's judgment were liable to become severe, and the paper stated that the operation would not be employed in cases of mild infection or infection with the colon bacilli or with the gonococcus. It was only in the streptococcic cases that the operation was advised.

In regard to the second point, Dr. Pryor had reported cases in which he had operated, and in which the temperature fell immediately, and the patient recovered, showing that there was no systemic infection, or that it was not of such character that it killed the patient. And his operation, which in Dr. Chandler's judgment lacks some of the better qualities of the one suggested here to-night, had produced good results, unless we said that Dr. Pryor did not tell the truth, and he was not prepared to make, or even to insinuate, such a statement, and would refuse to believe a statement of that kind.

Dr. Wilson had spoken of cases of infection being very few, thereby intimating that the operation was for some obscure trouble, yet Dr. Hirst, in his discussion to-night, had stated that three cases had just entered the hospital with which he was connected. This, in his judgment, answered Dr. Wilson's question.

While not altogether bearing on this point, and yet he felt it was apropos, he would like to say that there was a habit, in discussing the cases in our city societies, of citing only the cases which occurred in the city, omitting any that occurred in the country and suburban districts. What was applicable to the city in regard to the number of cases and their causes, etc., of disease, was not always applicable to those of the country, and vice versa. He would state, however, that he believed more of these cases occurred in the country and in smaller towns than in the large cities. This was not in any way a reflection against the judgment and skill of the country practitioner. But he had such distances to travel and so many hardships with which to contend before reaching his patient that, in spite of his skill and judgment, more cases did occur in his practice.

Dr. Wilson had spoken of the removal of the placenta in one of Dr. Chandler's cases. It was true, no one can say that the case would not have recovered with this simple removal, and it might be that the point was well taken.

Dr. Norris had asked an important question—When do these cases need the operation? Dr. Chandler would answer that by asking whether Dr. Norris, or any other doctor, could always tell, when a patient was ill from any trouble, when was the exact time, or what was the exact basis upon which to determine on operating. Just as in Dr. Keen's paper on Massage of the Heart, when Dr. Chandler asked him how long he would wait before performing massage of the heart, he said that it was not time that was to be considered, but after a certain lapse of time, probably five or ten minutes. But he would not be held to that, as it was the general condition of the patient and other matters which would determine whether he would perform massage of the heart.

With all things given, with the respiration over 44, and with an infection streptococcic in character, Dr. Chandler would not hesitate to do this operation, bearing in mind the general condition of the patient in this advice. The reason he spoke of respiration was because he believed this was a valuable indicator in this as well as in other troubles. A patient had just been brought into one of our hospitals, and after being there some little time, was seemingly recovering, and on the day before the patient died the temperature had fallen to 98.2° F. from 104°; the pulse was almost normal; everything except the rapid respiration, which was between 50 and 60, pointed to recovery, and yet, within a few hours the patient had died.

Dr. Norris had also asked how this operation would give additional drainage, and why the operation was more logical than that of Dr. Pryor's, which seemed to him to be the more logical of the two. In the first place, the operation of Dr. Pryor's was not an operation of drainage, and Dr. Chandler could not conceive that it did drain to any extent. On the other hand, if we considered the lymphatic system around the uterus, consisting of a jacket of lymphatics leading to two different trunks or cords which led from the region of the cervix out through the broad ligaments, and nearer the fundus of the uterus those forming a complete network of lymphatics surrounding these parts and leading from these parts to the general lymphatic circulation, he thought the logic of how we obtained additional drainage was evident.

The moment that you punctured clear through the uterus you punctured these channels, thus making an opening through which free drainage could occur. The operation was surely much more practical on account of this drainage than that of hysterectomy, which had been done with a mortality of 55 per cent. in selected cases.

Dr. Norris had also spoken of immediate spreading of infection. Dr. Chandler thought that this was one of the best arguments for the operation, for if it did not spread through all the lymphatics immediately, we probably should not be justified in performing the operation, because we might be the means of spreading such infection by injuring the uterus and its tissues, but since it was already infected that argument lost its force.

Jacoby had reported 51 cases which were selected, every one of which showed infection of the lymphatics.

Dr. Norris had asked what Dr. Chandler meant by "extremely severe cases." This was a point well taken. He could not answer this otherwise than he had, except by saying, generally speaking, when a case had reached the danger line. There were some cases overwhelmed by infection in which one could tell the result. We had all seen them go to the danger line and then recover. It might be that the lymphatics here might be more numerous than the lymphatics in other local parts; still we did not have any more general systemic infection following this operation than we had when we entered other parts for operation, when such parts had been infected. He remembered that Dr. McLane Tiffany, of Baltimore, speaking before a meeting of railway surgeons several years ago, made the statement that the only way to cure a macerated kidney, or to save a patient, was boldly to cut into the kidney. Dr. Chandler said there was not a man in the country who would hesitate to do this now, nor would he admit that he would have more infection than if he did not so cut into the kidney, and in that case, as in these cases of sepsis, he probably would have death, if he failed to do so.

In regard to bringing forth a warning, no one desired to protect the medical fraternity and the patients more than Dr. Chandler did, but in these severe streptococcic infections, with a respiration over 44, and with every sign of collapse, with the full knowledge that every lymphatic in that part was infected—and he defied any one to bring a case here that differed from those reported by Jacoby—he could not see why any cry of warning was needed. On the other hand, he could see why it was wrong to stand by with a full knowledge of the case, and say that we could not operate because we might make further infection, and this, when the infection was upheld by every analysis and all the statistics that we had at our hands.

In regard to Dr. Hirst's remarks, his speech of condemnation was not one of logic. He demonstrated in his textbook that in these conditions the uterus was a generally infected organ, and in this textbook he displayed a uterus which he had removed in hysterectomy—the uterus seared from top to bottom. Both the picture and his description of the uterus left their impression upon the mind, and Dr. Chandler asked him how, in the name of common sense, you were going to reinfect an organ of that kind, and pointed out how much more logical was the operation which he had proposed than the one which he and others had at one time advocated—that of hysterectomy; for in hysterectomy, in tying the uterus we tied up the lymphatic trunks or cords, thus tying up the lymphatics which had been infected, so that the poison absolutely could not get out, with the result that the only exit that they had was in the general current, and if possible the result of a stronger and, therefore, a more virulent general infection. The mortality in hysterectomy, as had been mentioned before, in selected cases, was admittedly 55 per cent.

Dr. Chandler thought too serious a view of this operation was taken. When it was realized that the uterus was a thoroughly infected organ, it was too serious a view, and one not based on mature judgment and thought, to speak of sending out warnings, and not desiring that this society should bear the burden of any such operation. In answer to Dr. Hirst, he thought the operation he suggested was a logical one, because it did drain, and that was what we endeavored to accomplish, and he had tried to the best of his ability to demonstrate how it did cause such drainage.

He again called his hearers' minds to the position of the lymphatics as they left the cervix and uterus, and as they surrounded the uterus, and asked if there was any other method to drain, and was there anything more logical than to drain an infected organ. Again, if the organ had been generally infected, and that must be admitted, what could be the objection to letting out as much of that infected material and its poisons as was possible.

In regard to Dr. Pryor's operation, he did not think Dr. Pryor did drain his cases. As to the proportion of infection in Douglas's cul-de-sac, it made no vital difference whether the infection became located there or not. It was primarily in the uterus and lymphatics, and in mild cases it might not reach the posterior part of the uterus at all. In severe cases it might not cause an inflammation in Douglas's cul-de-sac, but in other adverse cases it did. Patients did not die from infection of the cul-de-sac. If so, one half of the patients with infected tumors of the uterus and surrounding parts would never reach the operator, because they would have died long before. It was the absorption through the lymphatics and veins that did the damage in these cases.

In the speaker's judgment it was not a vital objection against the operation simply because we could not tell or give the exact symptomatology when we operated. We might say in any case when we would operate, but it depended absolutely upon other conditions present. That was exactly so in this case. In mild cases, with the temperature of 102° F., or even 103°, with a respiration of 30, and with no seeming general systemic infection, he would not advise operating, but when a general infection was evident, because the mortality in these cases, in spite of what had been said, was high, he saw no reason why we should stand idly by and allow patients to die—and with the results which he had so far obtained, with no logical arguments against the operation, he should certainly proceed to operate, and should feel no fear of further infection while thus draining the lymphatic system by puncturing an already infected organ.

(1) **Tubal Menstruation.**—This paper, by Dr. E. E. MONTGOMERY, was read by Dr. P. BROOKE BLAND. The author reports the history of this case in order to strengthen the argument contained in his paper presented before this society at the October meeting, 1903, on The Structures Taking Part in Menstruation. At this meeting, a case of tubal menstruation was also reported by Dr. Bland. These two papers were written in collaboration. The history of the present case is as follows: The patient was operated upon for laceration of the cervix and a retrodisplacement of the uterus through the abdominal route. The day before the operation the patient's menstrual

flow began, and in view of this fact, the author, therefore, carefully examined the Falloppian tubes, to determine whether they actually took part in the menstrual process. His findings seemed to indicate that they did really participate in menstruation. In this case the tubes were darkened and congested. Pressure exerted from the uterine toward the abdominal end of the tubes caused a few drops of blood to appear at their external orifices, and also small dark colored clots were expressed. These were somewhat of the character found in menstruation. The author regretted that a microscopical examination of these clots was not made, because of the possibility of their having been associated with an ovum, and he also regretted that he did not examine the ovaries for indication of recent rupture of Graafian follicles. The case was presented, as heretofore stated, as additional evidence that the tubes were active in the physiological process of menstruation.

(2) **Internal Hæmorrhage from Ectopic Gestation Without Rupture of the Sac.**—This paper, by Dr. E. E. Montgomery, was read by Dr. P. Brooke Bland. In this contribution the author desires to point out the constant danger of tubal pregnancy, in that serious hæmorrhage may take place from the gestation sac without fracture of its walls. The first class of cases in which serious hæmorrhage may occur without rupture, is tubal abortion. Such a condition is usually followed by profuse and dangerous bleeding. The cavity is generally filled with blood which clots, and finally arrests the hæmorrhage. Occasionally the separation of the fœtal sac may not be complete, but hæmorrhage occurs from the partial separation which makes its exit from the abdominal end and causes extensive hæmorrhage. Finally, the weakened circulation will result in the formation of a clot, which arrests the hæmorrhage and saves the patient. The writer cites a case of tubal abortion. The patient had a characteristic menstrual history of pregnancy. She missed two periods, and upon coming under observation had been bleeding for several days. This bleeding was attended with severe pain in the lower abdomen. The patient at times had attacks of cerebral circulatory disturbance. Examination revealed a resistant mass to the right of the uterus. Diagnosis of ectopic gestation had been made, though the author from the appearance of the patient did not think the shock sufficient to indicate either rupture or tubal abortion. The patient was operated on, and on entering the abdomen the right tube presented a sac occupying the outer half of the tube, which was filled with clot, but showed no rupture. The fluid had escaped from the end of the tube, but an abortion had not really taken place. The other class of cases to which the author calls attention are those in which the villi of the chorion erode and penetrate the tubal wall, and even its serous covering, and thus bleed from the extremities into the peritoneal cavity. These projections are so small as to often only be perceptible by the microscope, but yet cause dangerous hæmorrhage. He cites a case in which this condition was well exemplified. The patient was admitted to the hospital quite anæmic looking, complained of soreness over the abdomen, but had no marked tenderness or rigidity. Examination revealed a retroverted uterus, but little else could be determined. Blood examination showed red blood corpuscles, 3,200,000; white, 720,000; hæmoglobin, 70 per cent. Her temperature ran from 99° F. to 100°; pulse, 96 to 104. This patient had passed one period but a few days when she was seized with severe pain in the lower abdomen, which was followed by bloody vaginal discharge. This had continued until her admission to the hospital a month later. The patient would at times have rather severe attacks of pain in the lower abdomen, particularly when moving about. At times she also became exceedingly faint and was obliged to remain in bed. She was operated on, and on entering the abdomen it was found filled with fluid and clotted blood. The right tube was occupied by a sac about the size of a small orange, which ruptured on being delivered, allowing the amniotic fluid to escape, and not blood. Examination of the sac did not reveal any seat of rupture, except that caused on delivery, but on its superior surface several small, dark colored hæmorrhagic areas were noted. These on opening the sac were found to be immediately over the cord or at the placental site. Microscopical investigations revealed that these dark colored areas were the seat of hæmorrhage, and were caused by the villi eroding and penetrating the tubal wall.

Dr. B. C. Hirst: My experience shows a vast majority of tubal pregnancies bleeding in this way as a tubal abortion, a proportion of nine out ten at least. Recent histological examinations explain why this is so. As has been said, the syncytium of the chorion villi or trophoblast eats into the bloodvessels of the tubal mucosa. The bleeding comes from the inner wall of the tube, the blood is effused into the lumen of the tube and it has obviously escaped into the abdominal cavity from the abdominal ostium of the tube.

In regard to the so-called rupture of the tube in tubal pregnancy; in looking over my whole collection of 68 specimens removed by operation, I doubt if I have a single case in which there has been an actual rupture of the tube in tubal pregnancy from distention. By a process of erosion, the syncytium eats its way to the peritoneal coat which may then rupture or more likely is eroded like the rest of the tubal wall.

(3) **A New Modification of Operative Procedure for Retroflexion of the Uterus.**—This paper was presented by Dr. E. E. Montgomery, and was read by Dr. John M. Fisher. This is a modification of the operation devised by Ferguson, of Chicago; but to the author's view his method comes nearer securing the desired result than any other he has yet selected. The writer condemns the operation of extraperitoneal shortening of the round ligaments or even the operation of Goldspohn. The method described by the author is one that is very readily performed through a single incision. It affords splendid opportunity for examining and treating the diseased conditions in the pelvis, and gives a fair measure of assurance of the retention of the uterus anteposed. Moreover, it is an operation

which uses the natural forces of the uterus and does not add additional bands of adhesions within the peritoneal cavity that may be a source of danger to the patient the remainder of her life, as does the operation of ventrosuspension. Furthermore, in the procreating woman we have no positive assurance that the band formed in ventrosuspension will not be a source of distress and danger during the progress of her gestation. Besides, it also becomes a source of danger from loops of intestine slipping between it and the fixed uterus becoming strangulated. The author then describes the operation devised by Gilliam and Ferguson, which consists in making the median abdominal incision and drawing and securing the round ligaments through stab wounds in the recti muscle. Then the peritonæum external to the round ligaments is gathered together with a pursestring-like suture and tied. This closes completely the space between the round ligaments and the uterus, therefore prevents the intestine slipping between them. The author's modification of this operation is as follows: The abdomen is opened by median incision. The round ligament is picked up one inch and a half from the cornua of the uterus and a ligature is passed beneath it. Both ends of this ligature are carried by a Deschamp's needle through an opening in the peritonæum anterior to the round ligament, to the parietal surface and beneath the parietal peritonæum to a point about the outer margin of the rectus muscle, where it is carried through the peritonæum, muscle, and aponeurosis. The ligament on the opposite side is treated in a similar manner. The projecting loops of the ligaments are fastened by sutures to the aponeurosis, the final ones being passed in such a way as to decrease the size of the opening through which the loop was brought. The advantages the author claims for this operation. are as follows: The womb is maintained in an anterior position; it affords mobility to the organ; it introduces no adhesions nor extraneous material within the abdominal cavity and yet affords structures which will undergo hypertrophy and involution should the woman become pregnant. Moreover, it is of advantage in cases in which there is a tendency to prolapse of the ovary and tube as the relation of the retracted broad ligament to these organs forms a shelf upon which they are more likely to rest. He asserts that it is also of service in cases of femoral hernia, in that it decreases the directness of the pressure of the intestines on the femoral opening.

Dr. F. H. Maier: I have seen this operation performed quite a number of times, and it is surprising with what ease it is done and in what little time. As Dr. Fisher says, it is simply grasping the round ligament, throwing a ligature around it, making an opening in the peritonæum and carrying it subperitoneally to a point in the lower part of the rectus muscle parallel to the abdominal wound. It can be done almost as quickly as a ventrosuspension. We know that the round ligament and the peritonæum in time, even if they are somewhat distorted and bunched up, will readily reassert themselves, as is seen in the changes that occur incident to pregnancy. It has distinct advantages over the Gilliam-Ferguson operation, in which, so far as I have seen of that procedure, the greatest trouble is in closing off the vesicouterine pouch so that there shall be no pressing of the intestines around the ligaments when they are drawn up into the lower recti incisions. We are there getting nearer to the bladder, and the peritonæum is bunched more than in this procedure of Dr. Montgomery. In this subperitoneal method we have no secondary suturing and no false ligaments in the peritoneal cavity to predispose to ileus. In displacements of long standing we also have the tubes and ovaries prolapsed with elongation. Many of these cases need suspension not only of the uterus, but of the ovaries as well, and this operation is of advantage in such cases. Of course, as Dr. Montgomery says, it requires time to ascertain the results. It should not be judged hastily. In the Gilliam-Ferguson operation we found that a good many patients returned, complaining of distress in the bladder. This might be due to the intrapelvic peritoneal suturing. Montgomery's method obviates that difficulty, and in many ways is a most advantageous procedure.

Dr. P. Brooke Bland: I have no further remarks to make on tubal menstruation or on uterine hæmorrhage. I do believe that this operation devised by Dr. Montgomery has distinct advantages. The particular advantage is that you use the strong portion of the round ligaments. It is the only operation upon the ligaments that has this value. In the other operations you utilize the portions of the round ligaments just as they leave the peritoneal cavity, and they are very thin and weak in this region, and indeed sometimes cannot be found. Moreover, if you are going to do a shortening of the round ligaments by Alexander's method, you have to make two incisions, and being an extraperitoneal operation any diseased condition could not be recognized or treated. Then, too, you may have sloughing of the round ligaments as they leave the abdominal cavity. These may then fall back and carry infectious material with them into the peritoneal cavity. I believe that by this operation described by Dr. Montgomery, the uterus is successfully retained in a forward position. I do not feel that any operation on the outer portion of the round ligaments will maintain a chronically retrodisplaced uterus in an ante position for any length of time.

Dr. J. M. Fisher: Unfortunately we lose sight of our patients after operation. It is difficult, therefore, to determine the value of any given procedure for the restoration of the uterus to its normal position. The question, after all, is whether a displaced uterus in a given case from a clinical standpoint is responsible for prevailing symptoms. There is no doubt in my mind that very many never give rise to symptoms, so that, even if the uterus is replaced, there is no change in the condition of the patient. For example, a patient was sent to the Jefferson Hospital to-day suffering from Jacksonian epilepsy. The family physician had found a backward displacement of the uterus and attributed the epilepsy to this condition. The displacement was easily corrected bimanually, and it was quite evident that the epilepsy bore no relation to the displacement. I have seen most of the procedures that are practised for the correction of backward displacements of the uterus, and this operation done by Dr. Montgomery has impressed me very favorably. He has had a number of these operations at the Jefferson. I, myself, have had experience in one case, but the operation was not performed with the same ease as Dr. Montgomery does it now; but, I am sure that after one has mastered the technics it can be done expeditiously. As Dr. Bland has said, the best part of the round ligament is used for the purpose. There are no raw surfaces left in the abdomen after completing the operation. The buttonhole opening in the broad ligament is closed up by the round ligament and after this has been fixed to the fascia of the rectus, the anatomical relation of the uterus to surrounding structures is practically that of the organ under normal conditions.

Dr. NORRIS: How much puckering is there of the broad ligament after the round ligament has been drawn through and out of the abdominal wall?

Dr. FISHER: There is some shortening of the broad ligament. As the round ligament is drawn through its anterior leaflet it has some influence upon the tube and may bring about a flexed condition of this structure. As Dr. Montgomery has said, when there is a prolapsed condition of the ovaries and tubes it brings these structures into more favorable positions. A shelf is formed on the posterior aspect of the broad ligament on which the ovary rests. I have not seen any of the patients after the operation, and am, therefore, unable to judge of the permanency of the results, but my present impression is that it presents very distinct advantages over every other form of round ligament operation.

Exhibits.—The following exhibits were also made: (1) Ehrenfests's Pelvimeter; Schatz's Metranoicter, with Modification; (2) A Peculiar Neoplasm in the Puerperal Uterus Probably of Inflammatory Origin; (3) A Fibroma of the Ovary Completely Calcified; (4) A Report of Experience with the Menge Pessary;; (5) Photographs of a Vaginal Cyst Simulating a Cystocele, by Dr. BARTON COOKE HIRST.

Exhibition of Fibroma of the Ovary, by Dr. R. C. NORRIS.

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Four Story Building for Johns Hopkins Hospital.—The trustees of the Johns Hopkins Hospital have projected another warehouse to be erected at 114 South Street, Baltimore. The structure will be four stories high and will have a brick front, with limestone trimmings, and a granite base. The shop front will be of copper. The warehouse will be provided with a freight elevator, will be heated by steam and lighted by electricity. The vault and offices will be on the first floor, resting on concrete foundations. The basement will be used as a boiler room. The roof will be slag, metal shutters will be placed on the rear windows, and the construction work will be of steel and wood. The plans are ready for bidders.

Book Notices.

The Surgery of the Heart and Lungs. A History and Résumé of Surgical Conditions Found Therein, and Experimental and Clinical Research in Man and Lower Animals with Reference to Pneumonotomy, Pneumonectomy and Bronchotomy, and Cardiotomy and Cardiorraphy. By BENJAMIN MERRILL RICKETTS, Ph. B., M. D., etc. The Grafton Press, New York, 1904. Pp. xvi-510. (Cloth, $5.00; leather, $7.00 net.)

This sumptuous volume is devoted about equally to the surgery of the heart and to that of the lungs. It deals with much more than the strict surgery of the great thoracic organs, expounding such subjects as their malformations, displacements, neoplasms, parasitic affections, etc. The recent awakening of interest in surgical intervention in cases of injury to the heart by violence will naturally cause that portion of the book that deals with traumatism to be studied eagerly by those who wish to inform themselves concerning what has been accomplished in the surgery of the heart and what we may expect to accomplish in the future. Besides his own contributions, Dr. Ricketts furnishes us with such extensive bibliographical references as will greatly facilitate the reader's acquirement of a comprehensive—we might say exhaustive—knowledge of the annals of cardiac surgery. And he has done the same in the case of the lungs. For a long time to come, therefore, the work will serve as a great storehouse of information concerning the subjects of which it treats. More than that, in its pages the author successfully inculcates his declaration that operative work upon the heart and lungs ought oftener to be resorted to than it has been heretofore, or at least until within very recent years.

The half-tone illustrations are numerous, and they are beautifully executed. The typography also is most creditable to the publishers, and the same may be said of the general appearance of the volume.

New York Eye and Ear Infirmary Reports. Vol. XI. New York: G. P. Putnam's Sons.

The usual number of excellent papers are again presented in this annual, a very few of which have been selected for mention and comment. Dr. Gruening's paper recalls to mind the many similar operations for the relief of ptosis which have been brought forward, since Bowman reported in 1859 two cases in which he had resected a portion of the tarsal cartilage with a part of the levator and sutured the cut edges, in one case through the conjunctival surface, in the other through an incision in the skin. Dr. Gruening mentions of these only that of Gillet de Grandmont, which, as we recollect it, differs very slightly from his own. Excision of a part of the cartilage, with or without a portion of the levator, and excision of a part of the levator, with or without including a portion of the cartilage, performed from the conjunctival or the cutaneous side, has furnished an excellent opportunity for variation in detail and a multiplicity of operations, each of which has been advocated as applicable to the same class of cases. In all the effect seems to be to shorten the distance between the origin of the levator and its efficient insertion in the lid, and the choice of procedure would appear to be dictated by the conditions in the individual case.

Dr. Hunter's good description of a case of tuberculous iritis is very interesting.

Dr. Fridenberg's observations regarding sclerosed nerve fibres following retinal traumatism are interesting, and the condition deserves further study.

Dr. Denig's report of unilateral hyperidrosis affecting a father and a son, with no symptoms of existing disease, is a valuable contribution to the scanty literature on this subject, but it is unfortunate that nothing is given in the history which bears upon the question raised by Teuscher as to whether this condition might not be looked upon as a stigma of congenital degeneracy.

Dr. Gebrung's article on the diseases of the optic chiasm is a very extensive and valuable collation of the literature on this subject.

The Elements of Kellgren's Manual Treatment. By Edgar F. Cyriax, M. D. 138 Illustrations. New York: William Wood & Co., 1904. Pp. xiv, 506. (Price, $4.00.)

Dr. Cyriax states that Kellgren's manual treatment, is an improvement and amplication of Ling's system. The first half of the book is devoted to a description of the method and of the various movements; the second half to a report of cases of all kinds treated by this method alone. The author believes the method applicable for most internal and external disorders, including the acute infectious diseases, when it is used to eliminate waste and rivet and tone up the system. In commenting on a case of typhoid fever (page 252) he remarks: " I have never imposed the slightest restriction on diet. . . . I have likewise almost invariably allowed my patients to get up if they wished to." On page 250 he states that spinal curvatures " may be due to a tender or irritative condition of some internal organ, such as an ovary or kidney." It must be admitted that these and similiar statements go far to explain if not to justify the general lack of interest of medical men in manual therapeutics, of which the author complains. There is undoubtedly a basis of fact for much of the work described, but the absence of a sane and common sense perspective can only be deplored.

Manuel d'orthopédie vertébrale. Par le Dr. A. Chipault (de Paris). Paris: A. Maloine, 1904.

The veteran author has produced in this little volume a comprehensive and serviceable handbook covering the subjects indicated in his title page. Details of treatment are presented without too much theorizing. The methods advocated are positive and illustrate all the ordinary resources of technics that are called into play from his point of view, including forcible correction of kyphosis without an extravagant display of force, and operations for surgically uniting the vertebral processes. The author's long and varied experience and his familiarity with branches not directly connected with his present subject give authority and interest to his work. The material is conveniently classified for reference.

The Ophthalmic Year Book. A Digest of the Literature of Ophthalmology with Index of Publications for the Year 1903. By Edward Jackson, A. M., M. D., Emeritus Professor of Diseases of the Eye in the Philadelphia Polyclinic. With 45 Illustrations. Denver: The Herrick Book & Stationery Company, 1904.

This work contains a critical digest of that part of the literature of the past year which appeals to the author as of the most importance to the ophthalmologist, together with a list of the more imporant communications which have appeared. In the digest the material is systematically arranged under various headings, beginning with Refraction, and is made into a running narrative, so as to include the essential points of the papers referred to. The disadvantage of a brief abstract is that an author sometimes finds it difficult to recognize in it the particular thought he has labored to bring forth, and the only way in which it could be determined whether this has been overcome in the present case would be by obtaining the opinions of the authors whose works have been reviewed. Aside from this possible fault, which is common to all abstracts, the work seems to have been done conscientiously and very well.

The list of books, monographs, and journal articles is excellent. We are uncertain, possibly on account of our own density, whether it includes all the books and papers on ophthalmic subjects that were published during 1903, or only a selected portion. While it is eminently proper that only selected articles should be included in the digest, a list of this nature should include every article, because no man can foresee the manifold uses to which such a list may be put. Such a list, if complete and maintained year after year, will prove remarkably useful to all students of ophthalmology.

The index, to which attention is directed by the author, deserves the highest encomiums.

BOOK AND MAGAZINE NOTES.

The number of textbooks for nurses continues to increase. *Practical Materia Medica for Nurses,* by Emily A. M. Stoney, a very condensed manual, apparently without much original matter, has reached a second edition in the hands of W. B. Saunders and Company, the publishers. Its value to nurses would seem to be that of a quiz-compend to a practitioner.

In the *Century* for August, the installment of *The Youth of Washington,* by Dr. S. Weir Mitchell, leads the father of his country into stirring adventures and extricates him from what promised to be a serious charge against his character.

The August *Cosmopolitan* contains an article, *What is Education?* by the editor, Mr. John Brisben Walker. His answer is, the study of everything but Latin and Greek. Physicians who remember the great value of these languages in assisting their medical studies will view with suspicion Mr. Walker's advice to members of other professions regarding their disuse as an educational factor. Since, for reasons which our readers know to be satisfactory, we write our prescriptions in a sort of Latin, "medicine . . . is the practice of ignorance upon credulity." Mr. Walker wishes every one to study science; a word which he uses without explanation in one of its restricted senses. If knowledge of antique tongues and manners is not science, what is? We think that Mr. Walker's solemn performance will be read with great amusement by all educated men.

BOOKS, PAMPHLETS, ETC., RECEIVED.

The Treatment of Some Acute Visceral Inflammations and Other Papers. By David B. Lees, M. A., M. D., Cantab., F. R. C. P., Lond.; Formerly Scholar of Trinity College, Cambridge; Senior Physician to the Hospital for Sick Children, etc. Philadelphia, 1904: P. Blakiston's Son & Co.

Radioactivity. An Elementary Treatise, from the Standpoint of the Disintegration Theory. By Fredk. Soddy, M. A., Lecturer on Physical Chemistry and Radioactivity in the University of Glasgow. With 40 Illustrations. New York, 1904: The D. Van Nostrand Company. London: The Electrician Printing and Publishing Company, Ltd. [Price, $3.00 net.]

La Fiebre Amarilla en Venezuela. By Juan Manuel Iturbe, Interno de los Hospitales. Contribucion al estudio de la fiebre amarilla en Venezuela. Tesis de Doctorado. Caracas, 1904: Tipofrafia Americana.

Physiology Practicums. Part IV, Revised. Explicit Directions for Examining Portions of the Cat, and the Heart, Eye, and Brain of the Sheep, as an Aid in the Study of Elementary Physiology. With 25 Plates and 5 Figures in the Text. By Burt G. Wilder, B. S., M. D., Professor of Neurology, Vertebrate Zoology, and Physiology in Cornell University; Formerly Professor of Physiology in the Medical School of Maine and the University of Michigan, etc. Published by the Author, 1904: Presses of the Ithaca Journal.

Miscellany.

BEFORE THE OPERATION.

(THE NERVOUS PATIENT'S VIEW.)

Across my narrow bed so white and prim
A little sunbeam falls athwart the gloom,
And through its golden woof the dancing motes
Make holiday within my darkened room.

I never thought to break down at the last
And feel the dread and terror hourly grow.
I set my teeth to keep their chattering still
And clench the hands that shake and tremble so.

The nurse has made me ready and has gone.
A moment ere the doctors come to me,
And I am frightened, oh, so frightened, and
Can only lie and suffer tremblingly.

I'll ask them if I cannot wait a day—
If not a day, perhaps an hour's reprieve.
To-morrow—oh, to-morrow. I could bear
To have it done to-morrow, I believe.

To-morrow! I may be so cold, so cold—
'Tis best to turn from that; I must keep sane.
I'll think of all the dear ones safe at home,
Wailing for mother to come back again.

Oh, baby, baby, baby! shall I see
Ever again your sunny little head?
I hear them coming—Oh, my God, they're here!
The fear of death encompasseth my bed.

The cone is on my face, and drop by drop,
The—pain—destroyer—falls. A silence deep
Slides gently down. A watch ticks somewhere near,
A gasp—a struggle—then most blessed sleep!

Evelyn Gunne.

Radiotherapy in Eye Diseases.—Dr. John Green, Jr. (*Interstate Medical Journal*, June), concludes a paper on this subject, as follows: In the light of our present knowledge of the radiotherapy of ocular disease, the following conclusions would seem to be justified: 1. In epithelioma and rodent ulcer of the eyelid, radiotherapy surpasses all other methods of treatment. 2. In selected cases of trachoma, radiotherapy offers the possibility of rapid cure. The treatment is practically painless and the cure is effected with a minimum of deformity to the lid. 3. The method is worthy of trial in cases of vernal conjunctivitis, tuberculosis of the conjunctiva, orbital sarcoma and carcinoma and in recurrence of glioma after operation for glioma of the retina. 4. The treatment is without danger to the function of sight.

Official News.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the week ending July 29, 1904:

Smallpox—United States.

Place.	Date.	Cases.	Deaths.
Dist. of Columbia—Washington	July 16-23		1
Illinois—Chicago	June 16-23	4	
Illinois—Danville	July 16-23	1	
Iowa—Clinton	July 8-16	1	
Kentucky—Covington	July 16-23	1	
Louisiana—New Orleans	July 16-23	1 imported	
Massachusetts—Fitchburg	July 16-23	1	
Michigan—Detroit	June 16-23	1	
Missouri—St. Louis	July 16-23	5	
New York—New York	July 16-23	2	
Ohio—Cincinnati	July 8-15	2	
Pennsylvania—McKeesport	July 16-23	1	
Pennsylvania—Williamsport	July 16-23	1	
Tennessee—Memphis	July 16-23		1
Wisconsin—Milwaukee	July 8-23	3	
Smallpox—Insular.			
Philippine Islands—Manila	May 7-June 4	19	5
Smallpox—Foreign.			
Belgium—Brussels	July 2-9		1
Brazil—Pernambuco	June 1-15		24
China—Hongkong	May 28-June 11	7	1
China—Shanghai	June 4-11		3
France—Paris	June 25-July 9	20	2
Great Britain—Edinburgh	July 2-9		1
Great Britain—Glasgow	July 8-15	11	2
Great Britain—London	July 2-9	10	
Great Britain—Nottingham	July 2-9	3	
India—Bombay	June 21-28		17
India—Karachi	June 19-26	2	
Japan—Nagasaki	June 1-20	4	3
Netherlands—Rotterdam	July 8-16	1	
Panama—Panama	July 11-18	1	1
Turkey—Constantinople	June 27-July 3		7
Yellow Fever.			
Costa Rica—Limon	July 8-16	1	
Mexico—Merida	July 3-9	4	
Mexico—Tehuantepec	July 3-9	6	1
Mexico—Vera Cruz	July 9-16	4	
Cholera.			
China—Hongkong	May 28-June 11	13	11
India—Bombay	June 21-28		1
Plague—Insular.			
Hawaii—Hilo	July 21		1
Philippine Islands—Cebu	May 25		1
Philippine Islands—Manila	May 7-June 4	12	12
Plague—Foreign.			
Australia—Brisbane	June 11-18	1	
Australia—Maryboro	June 3		1
Australia—Sydney	June 6		1
China—Hongkong	May 28-June 11	83	83
India—Bombay	June 21-28		48
India—Karachi	June 19-26	3	3

Public Health and Marine Hospital Service:

Official List of the Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the Public Health and Marine Hospital Service for the seven days ending July 28, 1904:

Glennan, A. H., Assistant Surgeon-General. Granted leave of absence for fifteen days from August 1st.

Glover, M. W., Assistant Surgeon. Bureau telegram of July 13th, granting Assistant Surgeon Glover leave of absence for seven days, on account of sickness, amended to read five days from July 12th.

Guiteras, G. M., Surgeon. Bureau letter of July 11, 1904. granting Surgeon Guiteras leave of absence for seven days from July 14, 1904, amended to read four days only.

Irwin, Fairfax, Surgeon. Granted leave of absence for one month from August 15th.

Kalloch, P. C., Surgeon. Granted leave of absence for twenty-two days from August 1st.

McIntosh, W. P., Surgeon. To assume temporary charge of Portland (Me.) Quarantine, in addition to other duties, during the absence on leave of Surgeon P. C. Kalloch. July 28, 1904.

McMullen, John, Passed Assistant Surgeon. Granted leave of absence for one month from August 5th.

Seavey, L. T., Acting Assistant Surgeon. Granted leave of absence for fourteen days from August 8th.

Smith, Emma F., Medical Inspectress. Granted leave of absence for thirty days from July 1st.

Stiles, Ch. W., Zoologist. Detailed to represent Service at Sixth International Congress of Zoology at Berne, Switzerland, August 14th to 19th.

Ward, W. K., Assistant Surgeon. To proceed to Bridgeton, Barbadoes, B. W. I., for duty in office of the United States Consul. July 12, 1904.

Board Convened.

Board convened to meet at Washington, D. C., August 1, 1904, for the physical examination of an officer of the Revenue Cutter Service, and an applicant for admission into said Service. Detail for the board—Assistant Surgeon General G. T. Vaughan, chairman. Assistant Surgeon A. J. McLaughlin, recorder.

Promotion.

L. C. Spangler, Pharmacist of the third class, promoted to be Pharmacist of the second class, effective May 28th. July 25, 1904.

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending July 30, 1904:

Bevans, James L., First Lieutenant and Assistant Surgeon. Assignment to duty at Fort H. G. Wright, N. Y., suspended until the conclusion of the Army manœuvres to be held at Manassas, Va.

Billingslea, C. C., First Lieutenant and Assistant Surgeon. Relieved from further duty in the Division of the Philippines and assigned to duty at the General Hospital, Presidio of San Francisco.

Church, James R., Captain and Assistant Surgeon. Sick leave of absence extended two months.

Eastman, William R., First Lieutenant and Assistant Surgeon. Leave of absence extended thirty days.

Edger, Benjamin J., Jr., Captain and Assistant Surgeon. Relieved from duty at the United States Army General Hospital, Presidio of San Francisco, Cal., and ordered to Fort Brown, Texas, for duty.

Ford, Clyde S., First Lieutenant and Assistant Surgeon. Assignment to duty at Fort Barrancas, Fla., suspended until the completion of the Army manœuvres to be held at Manassas, Va.

Gandy, Charles M., Major and Surgeon. Detailed to attend the encampment of the Michigan State Militia to be held at Ludington, Mich.

Gardner, E. F., Lieutenant-Colonel and Deputy Surgeon-General. Under orders for examination by an Army Retiring Board to meet at Atlanta, Ga.

Geer, Charles C., First Lieutenant and Assistant Surgeon. Granted sick leave of absence for three months.

Snyder, Henry D., Major and Surgeon. Relieved from duty at Plattsburgh Barracks, N. Y., and ordered to Fort Sam Houston, Texas, for duty.

Waterhouse, S. M., Captain and Assistant Surgeon. Promoted captain and assistant surgeon, from July 23, 1904.

Woodruff, Charles E., Major and Surgeon. Relieved from further duty in the Division of the Philippines, and on expiration of present sick leave, ordered to Plattsburgh Barracks, N. Y., for duty.

The following named assistant surgeons have been designated for duty at the Army manœuvres to be held at Manassas, Va., September 1 to 21, 1904: Captains Thomas S. Bratton, Elmer A. Dean, Ralph S. Porter, William E. Purviance, Paul F. Straub; First Lieutenants Robert M. Blanchard, James Bourke, Henry L. Brown, James F. Edwards, Peter C. Field, William L. Keller, Charles E. Marrow, Fred W. Palmer, William W. Reno, William M. Roberts, Jay R. Shook.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending July 30, 1904:

Barber, G. H., Surgeon. Ordered to the *Hist* and to additional duty at the naval training station, Narragansett Bay, R. I.

Butler, C. S., Passed Assistant Surgeon. Detached from the *Constellation* and ordered to the naval training station, Narraganset Bay, R. I., and to duty on the *Hist.*

Cather, C. D., Assistant Surgeon. Ordered to the naval hospital, New York, N. Y.

De Bruler, J. P., Assistant Surgeon. Detached from duty with the naval reservation, Subig Bay, and ordered to El Cano.

Farwell, W. G., Assistant Surgeon. Ordered to the naval recruiting rendezvous, Boston, Mass.

Furlong, F. M., Passed Assistant Surgeon. Detached from the Naval Museum of Hygiene and Medical School, Washington, D. C., and ordered to the *Chicago.*

Mayers, G. M., Assistant Surgeon. Relieved from duty at El Cano and ordered to Raleigh.

Moore, J. M., Passed Assistant Surgeon. Relieved from duty at Raleigh and ordered home.

Murphy, J. F., Assistant Surgeon. Ordered to the *Hancock* for temporary duty.

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Births, Marriages, and Deaths.

Married.

Bacon—Rice.—In South Deerfield, Massachusetts, on Wednesday, July 20th, Dr. Theodore Spalding Bacon and Miss Mabel Arms Rice.

Conwell—Jones.—In Cincinnati, Ohio, on Wednesday, July 20th, Dr. Clayton Bond Conwell and Miss Sarah Whately Jones.

Cooper—Smith.—In Ironton, Ohio, on Wednesday, July 20th, Dr. J. Cardeen Cooper and Miss Edythe Smith.

Hopkins—Kinzie.—In Chicago, Illinois, on Saturday, July 23rd, Dr. Clarence W. Hopkins and Miss Mary Emma Kinzie.

Died.

McDow.—In Charleston, South Carolina, on Tuesday, July 26th, Dr. T. B. McDow.

Mellinger.—In Baltimore, Maryland, on Tuesday, July 26th, Dr. Jacob Mellinger, in the sixty-fifth year of his age.

Parsons.—In Auriesville, N. Y., on Tuesday, July 19th, Dr. William W. D. Parsons, in the seventy-third year of his age.

Strader.—In Hiseville, Kentucky, on Tuesday, July 19th, Dr. D. W. Strader.

Webster.—In New Bedford, Massachusetts, on Tuesday, July 19th, Dr. Helen W. Webster, in the sixty-eighth year of her age.

Wetherill.—In Philadelphia, Pennsylvania, on Wednesday, July 27th, Dr. Henry M. Wetherill, in the fifty-third year of his age.

Whiteley.—In Corry, Pennsylvania, on Wednesday, July 27th, Dr. J. S. Whiteley.

New York Medical Journal
AND
Philadelphia Medical Journal.
CONSOLIDATED.

A Weekly Review of Medicine

Vol. LXXX, No. 7. SATURDAY, AUGUST 13, 1904 Whole No. 1341.

Original Communications.

ABERRANT THYREOID TISSUE, AND ITS RELATION TO INTRATRACHEAL GROWTHS.

By JEREMIAH S. FERGUSON, M. S., M. D.,
NEW YORK,
FROM THE HISTOLOGICAL LABORATORY OF THE CORNELL UNIVERSITY MEDICAL COLLEGE.

In working up some tissue from an autopsy made in 1901, my attention was directed to a section of the human trachea, to the wall of which a mass of thyreoid follicles was closely adherent. Its relations to the outer fibrous coat of the trachea were so intimate that I was tempted to further study of the tissue, in the hope that it might throw some definite light upon the development of those thyreoid tumors which occasionally occur within the laryngeal and tracheal walls.

Paltauf, in 1892, expressed the opinion that these tumors, which von Bruns describes as "pathological rarities," gain their entrance into the trachea by direct extension from extratracheal thyreoid tissue. Such extension takes place either from the thyreoid direct, or from aberrant or accessory thyreoids.

In Paltauf's case, he found thyreoid follicles on the outer wall of the trachea, while the tumor, also containing thyreoid follicles, was embedded in the laryngeal mucous membrane. He assumed that the tumor gained entrance by extension through the intercartilaginous membranes of the larynx or trachea, but he was not able to trace a direct cellular connection with extratracheal thyreoid tissue.

Von Bruns, in 1898, removed a small intratracheal thyreoid tumor, which was found to be attached by a broad base to the anterior wall opposite the cricoid cartilage and first tracheal ring. He states that the thyreoid isthmus was adherent to the trachea, and that it was continuous with the intratracheal tumor. However, as he uses Paltauf's drawing to illustrate this connection, and as Paltauf did not consider that he had been able to trace the entrance of the thyreoid tissue through the intercartilaginous membranes, corroborative evidence that such is the method by which these aberrant tissues enter the trachea and larynx, would still seem to be desirable.

In my tissue, which does not include an intratracheal mass, it is possible to trace the aberrant thyreoid tissue inward in the outer fibrous coat of the trachea to about the same point as the outer limit in Paltauf's case. This tissue is, therefore, suggestive of an early stage in the development of an intratracheal tumor, a stage in which none of the thyreoid tissue has as yet broken through the tracheal wall.

The subject from which this tissue was removed was a man, aged twenty-six years, whose death resulted from a ruptured aneurysm of the basilar artery, the autopsy being done a few hours after death. Tissues were fixed in strong formaldehyde solution and hardened in graded alcohol. Serial sections were stained in hæmatin and eosin.[1]

Unfortunately, since the condition was not recognized on autopsy, in the process of hardening the thyreoid lobes were somewhat distorted from their proper shape, so that the gross relations of the thyreoid and trachea could not be satisfactorily determined.

The tissue consists essentially of two portions, the detached thyreoid lobes, and the trachea with its adherent colloid mass.

The thyreoid lobes are remarkable only for their difference in size, the right lobe weighing 3.02 grammes, the left 6.25 grammes. The approximate size of the right is 2.5 by 3 by 0.75 cms.; that of the left 2.5 by 5 by 1 cms. These dimensions are those of the hardened specimen.

The oblong ovoid shape and larger size of the left suggest that it probably includes a large portion of the isthmus. The tracheal thyreoid mass it may[2] be surmised, represents either a portion of the right lobe or its isthmus, for it lies entirely on the right side, its major portion extending from the median line in front, backward around the tracheal wall somewhat beyond its middle. In addition, several isolated fusiform masses are found in the posterior wall in close proximity to the ends of the cartilaginous tracheal rings.

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[1] For assistance in the preparation of sections I am greatly indebted to Dr. Guy D. Lombard, of this laboratory.

The upper end of the thyreoid mass is enclosed within a strong band of striated muscle, which at a lower level is found to end within the thyreoid tissue, the follicles being at this level distributed over a much greater breadth of space. The muscle fibres are inserted into the thick fibrous membranes which are found between the groups of thyreoid follicles. Hence the muscle probably represents a portion of the levator glandulæ thyreoideæ.

The most noticeable peculiarity of the tracheal portion of the thyreoid tissue is its irregular, apparently advancing border line, which is especially characteristic in the outer fibrous coat of the trachea (Fig. 1). The small border cell groups along this surface are separated from the thyreoid mass by dense fibrous membranes.

Many of these groups are seen to be completely isolated from the neighboring thyreoid mass, even when traced through a series of sections. Hence these border groups, if not the entire mass, must represent aberrant portions of thyreoid tissue. All these outlying pioneer groups, though composed of smaller and apparently less fully developed follicles than are found in the lobes of the thyreoid gland from the same subject, contain colloid material in most of their follicles. In many cases these follicles enclose the characteristic elements found in typical thyreoid follicles, i. e., red blood corpuscles, detached cells of the lining epithelium, etc.

Some such groups, i. e., several which occur in the posterior (membranous) wall of the trachea, are separated by a considerable interval of fibrous tissue from the nearest portion of the thyreoid mass. These groups, though traced through a series of sections, have no direct connection with the rest of the thyreoid mass.

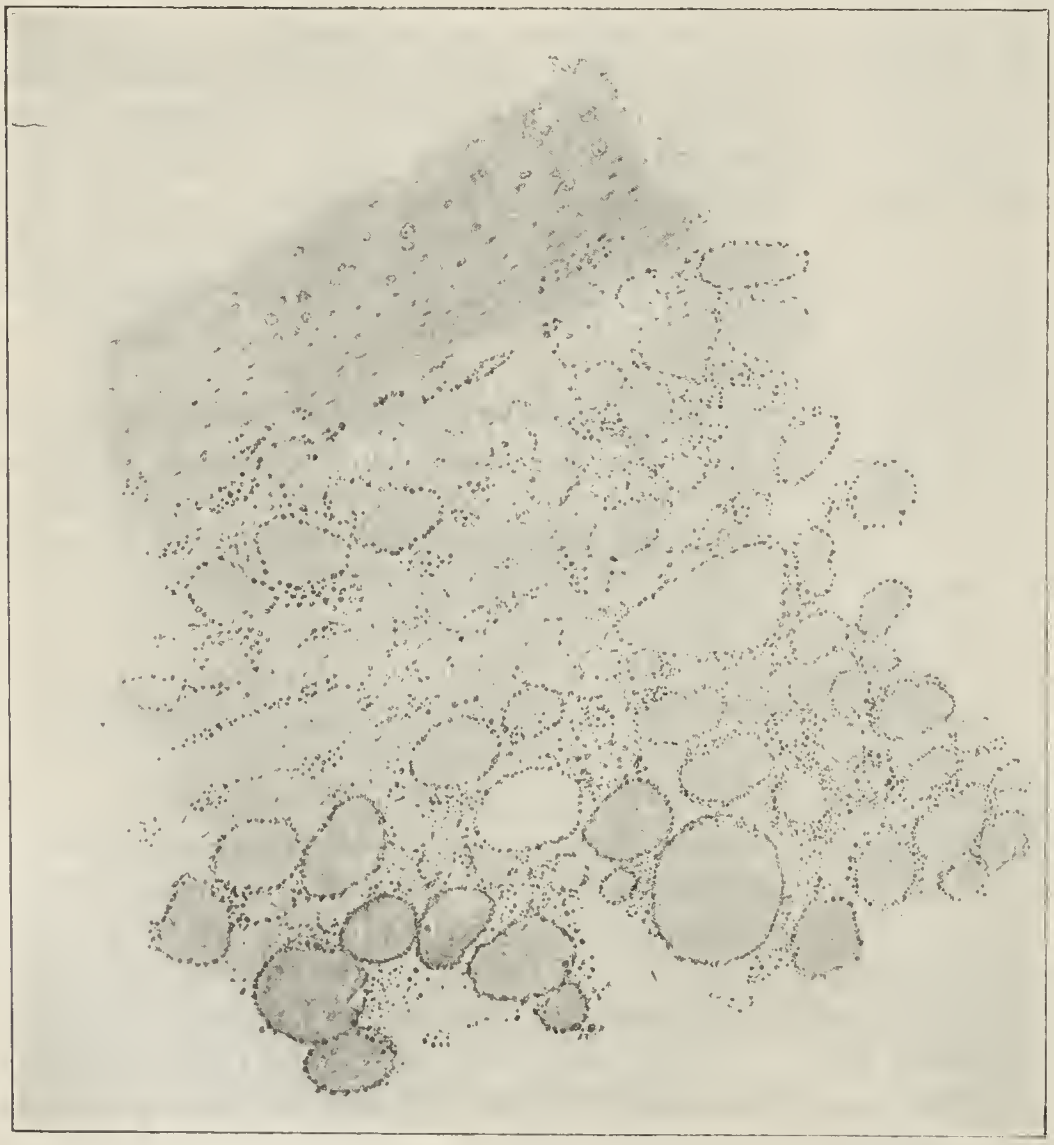

FIG. 1.—1. Tracheal ring cartilage. 2. Perichondrium invaded by pioneer cell groups. 3. Outer fibrous coat of the trachea containing immature aberrant thyreoid follicles. 4. Mature thyreoid follicles adherent to the tracheal wall.

Some of the smaller pioneer groups, which are embedded almost within the perichondrium, appear to send out still smaller cell groups, which push forward along the course of the passing blood vessels. This appearance is at least suggestive of the direction of follicular growth and development. Such pioneer cell groups, though directly connected with colloid containing follicles, do not always contain colloid material. If this condition can be considered as indicating that these cells represent immature follicles, then the border line of the thyreoid tissue must certainly be extending, and, as such cells occur with greatest frequency on that border of the thyreoid mass which adjoins the tracheal wall, the growth, though slow, must be, in part at least, toward the intratracheal tissues, in which direction it is opposed by the dense fibrous tissue of the perichondrium and intercartilaginous membranes. I have not been able to trace these apparently growing follicles inward beyond the dense perichondrial membranes.

However, the occurrence of isolated cell groups, as in the posterior membranous wall, suggests that direct anatomical continuity is not a

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[2] Since aberrancies are far more common when derived from the median than when derived from the lateral thyreoid "anlage," it would be fair to assume that the tissue in this case was derived from the median "anlage," and therefore represents a portion of the isthmus.

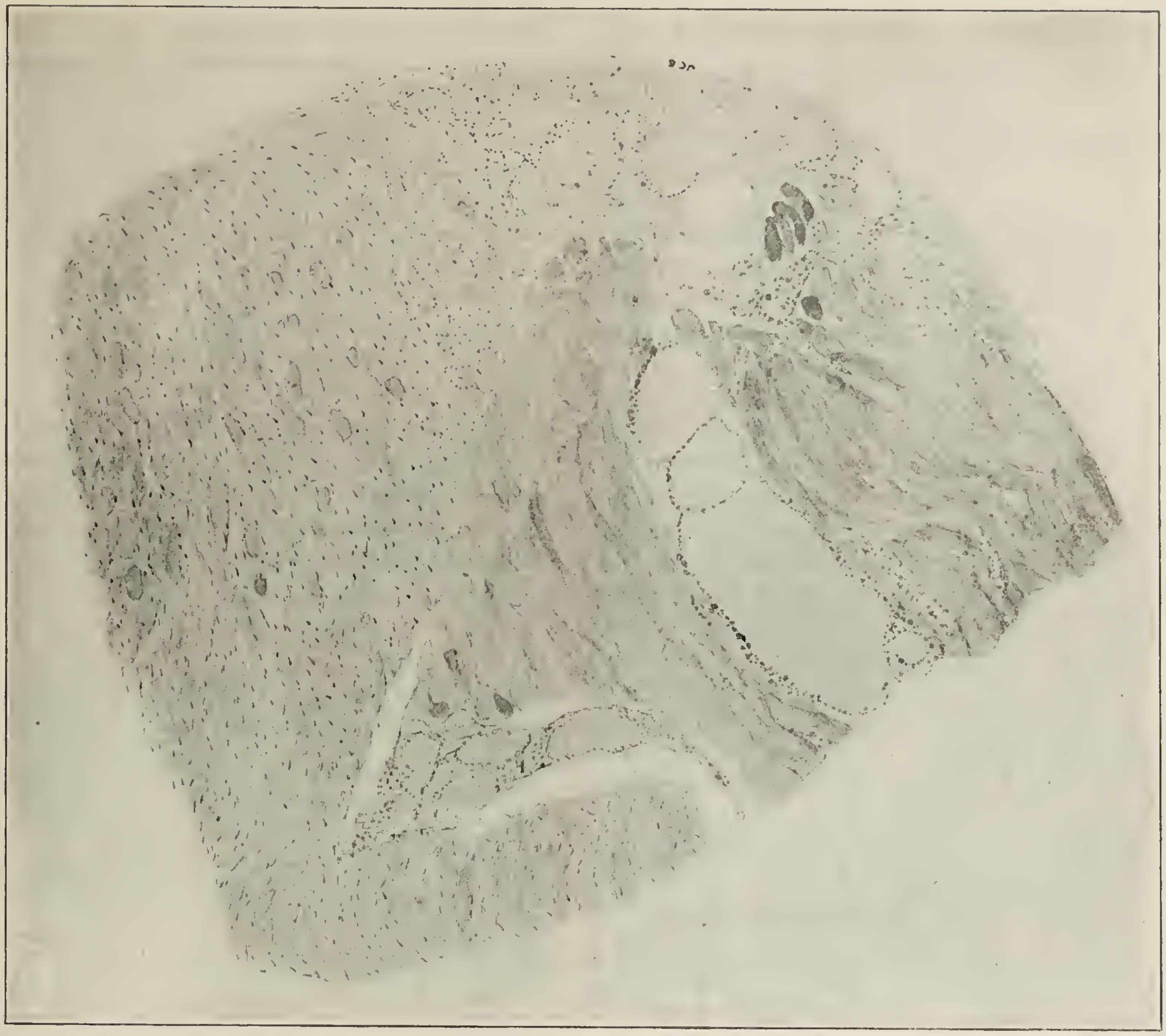

FIG. 2.—Invasion of the musculus levator glandulæ thyreoidæ by aberrant thyreoid tissue. 1. Muscular tissue. 2. Aberrant thyreoid tissue.

necessary evidence of the paths of development. If this is the case, there is reason to suppose that in tumors such as that described by Paltauf (1), these cells may wander through the intercartilaginous membranes, probably following the course of the blood vessels, and thus reach the inner fibrous coat of the trachea by the same process of development as that by which such groups of aberrant isolated follicles are separated from their parent mass.

Whether the tracheal mass in this case represents a growth from the thyreoid isthmus, an aberrant portion of the isthmus, or a true accessory thyreoid, I am unable to state positively, but I am inclined to believe that at least a portion of, and perhaps all, the mass is distinctly aberrant.

Aberrant or accessory thyreoids appear to occur with greater frequency above than below the hyoid bone. Thus they are frequently found at the base of the tongue and in the myohyoid muscle, or they may infiltrate the connective tissue between the œsophagus and trachea, and they have even been described by Kaufman (3) as encircling the pharyngoœsophageal wall.

Gruber (4), in 1876, and Zuckerkandl (5), in 1877, demonstrated that careful observation revealed these "accessory thyreoids" much more frequently than is ordinarily supposed. Thus Zuckerkandl, in 200 autopsies, found 57 subjects in which one or more aberrant masses were present. A large proportion of these were in relation to the hyoid bone.

Gruber (4) states that they are usually firmly adherent to the hyoid bone or to the thyreoid cartilage. He found 23 cases in 300 autopsies, and classified them according to three types, superior, inferior, and posterior.

Kadyi (6), in 1879, found 10 cases in 68 autopsies, and Streckeissen (7), in 1886, found them 36 times in 130 autopsies. He likewise observed that, as a rule, they were firmly adherent to the periosteum of the hyoid bone.

The occurrence of accessory thyreoids at the base of the tongue and within the trachea or larynx possesses a special interest, because of the tendency to obstructive tumor formation at these points. Such thyreoid deposits in the tongue have been reported by Butlin (8), Reintjes (9), Schadle (10), Staehlin (11), Warren (12), and Wolf (13). Intratracheal deposits have been reported, mostly as tumors, by Baurowicz (14), Bell (15), von Bruns (2; 16), Heise (17), Paltauf (1), Radestock (18), and Von Ziemssen (19).

Malformations resulting from irregular development of the lateral anlages appear to be less frequent, yet they have been reported by Marshall (20), who found the right lobe absent in 1 out of 60 cases, while Gow (21), has noted the absence of the left lobe; by Zuckerkandl (5) and Gruber (4) as infrequent forms of accessory thyreoid, and by Huber (22), Kaufman (3), and Kronlein (23), and possibly Pilliet[3] (24), as thyreoid tumors connected with the lateral lobes.

Ewald (25) also notes the occasional presence of thyreoids derived from the lateral lobes, and further states that similar bodies have been found in the region of the aorta, in the supraclavicular space, and at the side of and behind the pharynx and large blood vessels.

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THE BEST METHOD OF OPERATING TO EFFECT A RADICAL CURE OF SENILE HYPERTROPHY OF THE PROSTATE GLAND: BASED ON THE STUDY OF 150 RADICAL OPERATIONS.*

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(*Continued from page 249.*)

We have considered it our duty to the surgical world to make this brief defence of an operation which a large clinical experience in the hands of many operators has shown to be of real surgical merit. In our opinion it will always be recognized as a valuable surgical procedure. Cumulative evidence shows that in suitable cases it is capable of giving better results than the cutting operations, with much less danger to life, and therefore should always be resorted to in cases suitable for its employment.

The genitourinary surgeon who desires to maintain his position in the front rank of his profession can no longer afford to treat this operation in a contemptuous manner, and refuse to acquire the skill which is necessary in order to perform it properly. To verify these statements, an analysis of our own personal experience from 95 operations will now be given. At the outset we desire to have it clearly understood that we do not assert that prostatotomy by the Bottini method is a " cure-all " for every form of prostatic overgrowth. Quite the contrary. We have always maintained, and still teach, that a large number of individuals suffering from urinary obstruction due to this cause are amenable to treatment by means of the Bottini operation; that it is the proper method to be employed in suitable cases, giving the best results with the least danger. Skill and experience in the use of the modern instruments for examining the urethra, prostate gland, and bladder, are essential to arrive at an accurate diagnosis as to the size, configuration of the gland, and the cause of the obstruction. These data must be ascertained before the surgeon is in a position to say whether or not the case is suitable for a galvanocautery prostatotomy. In this connection it may be well to add that there is a great difference of opinion as to the value of the employment of the cystoscope as an aid in reaching an accurate diagnosis as to the condition of the urethra and the causes of the obstruction. We have found the instrument invaluable in determining the state of the bladder and the character of the growth in the vicinity of the vesical outlet; without its employment we should very often be unable to determine whether a Bottini operation was justifiable or not.

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* Read before the New York Academy of Medicine, December, 1902.

Out of 95 cases three deaths occurred, all in very old men, in one case from uræmia, and in two from sepsis. Eleven patients were lost sight of after leaving the hospital, but were very much improved when last examined. This leaves 81 cases which we were able to follow for a sufficient length of time to have some definite knowledge as to results.

The patients so treated may be divided into three classes: prophylactic, radical, and palliative.

First: Those operated on at the onset of vesical symptoms. Individuals between fifty-three and sixty-two years of age, who were just entering upon catheter life. Their bladders contained from two to three ounces of residual urine; the majority had employed a catheter twice daily for several months. A few had not resorted to the instrument, but were disturbed by an increased frequency of micturition. The only complication present in these cases was a mild form of cystitis, which existed in a few instances. In no case had the overgrowth of the gland assumed any great dimensions, the obstruction being principally caused by enlargement of the middle lobe of the prostate—the so called " bar "—a condition frequently described as a contraction of the neck of the bladder. In this class there were 25 operations. All the patients made speedy and uneventful recoveries. Four years have elapsed since the first operation, and two months since the last operation was performed. So far, none of them has experienced any further trouble. Prostatotomy by means of the galvanocautery in this class of cases has been denominated by us in a previous paper as the "prophylactic method of treatment."

Second: Thirty-three cases were operated on in persons between the ages of sixty-two and seventy-six years. The obstruction was caused, in the majority of instances, by a large, hard fibrous prostate, uniform in its overgrowth, the hypertrophy pertaining principally to the vesical portion of the middle and lateral lobes; there was no growth in the urethra or toward the rectum; the gland assumed the form of an obstruction at the vesical outlet, generally referred to as the "horse-collar growth." In each, from four to five ounces of residual urine existed. Atony of the bladder was present in the majority of the cases, and the contracted bladder existed in a few instances. Cystitis was present in nearly all. All had employed a catheter for a number of years; for a lengthened period some had been unable to void urine without the use of the instrument.

In each instance the operation was most successful. A symptomatic cure resulted in all. Four of the patients required a second operation within from two to four months after the first was performed.

After the obstruction of the vesical outlet was removed, all the cases required both local and constitutional treatment for several months before a permanent cure was effected. In the majority of cases, not more than a half ounce of residual urine could be found in the bladder four months after the operation. The irritability of the bladder had subsided and the general health was vastly improved; obstinate constipation, which was usually associated with these cases, disappeared. It is in this class that the results obtained by the general surgeon are as a rule disappointing. He does not appreciate the fact that, after the operation, both local and constitutional treatment must be persisted in for several months in order to effect a cure. This rule applies equally to complete prostatectomy, either by the perineal or by the suprapubic route. The general impression is that as soon as the obstruction has been removed there is nothing more to be done. Many of these cases are lost sight of or the patients are allowed to leave the hospital without further care and attention, and are put down as unsuccessful; whereas the truth is that if they received proper care and attention, a cure would be effected. Patients belonging to this category we have classified as being suitable for a "radical operation."

Third: In the third group of cases the operation was employed as a "palliative measure." This class is exemplified by fifteen operations upon individuals between the years of sixty-seven and eighty-one. All suffered from chronic cystitis. All had employed catheters for years, both by night and day. Some had had frequently recurring attacks of retention of urine, others were affected with orchitis. Four had well marked pyelitis. All suffered from the retention of a large amount of residual urine. In six, multiple stones of the bladder existed in conjunction with hypertrophy of the prostate gland. One had a filiform stricture at the bulbomembranous conjunction of the urethra. One had submitted to castration, and two had had vasectomy performed without relief, before coming under our care. Most of them were worn out with pain and suffering; in many there was marked atheromatous degeneration of the blood vessels, with polyuria. In none did we consider the resisting power sufficiently strong to warrant a prostatectomy. In seven, a preliminary suprapubic cystotomy was performed in order to drain the bladder and give the patient rest. The Bottini operation was performed on these individuals about two months after the suprapubic cystotomy. The majority of cases so treated were much benefited; not only in general health, but in notable decrease in the irritability of the bladder. The catheter could be readily inserted, and there was a great diminution of residual urine. The bladders in all these cases were markedly changed by reason of long-standing chronic cystitis, and it is doubtful, even if a prostatectomy had been performed, whether a complete cure would have resulted. Eleven cases were unimproved by operation and were finally relieved by permanent drainage established by a suprapubic operation or by intermittent catheterism. In seven cases the gland was enormously enlarged, assuming in some instances a grotesque appearance. Some had an enormous hypertrophy of both middle and lateral lobes projecting into the bladder, giving rise to a visible pouch both above and below the gland. In others the growth was made up of multiple tumors projecting into the urethra, bladder, and rectum. In all, the bladders were extensively diseased. Two of the patients belonging to this group died after the operation.

With the knowledge gained by our more extended experience, we now know that none of these eleven patients was a suitable case for the Bottini operation, and that all should have been treated entirely by palliative measures. In two of the cases, permanent suprapubic drainage was established. Two patients died, two months after leaving the hospital, of uræmia, having been unimproved by operation. One was lost sight of after leaving the institution. One submitted to a suprapubic cystotomy performed by a surgeon in another hospital. Three submitted to prostatectomy by different surgeons, from which two died, and one, after a prolonged convalescence, when last seen was unimproved.

An analysis of the operations performed shows twenty-one operated on at the onset of the symptoms caused by obstruction, all of whom were permanently cured. In thirty-three the middle lobe was principally obstructed, the lateral lobes being but slightly involved; symptomatic cures resulted in all. Fifteen cases of long-standing obstruction with secondary complication, physical condition below par, were much benefited, the operation, however, being merely palliative. In eleven cases of old men with long-standing obstruction, the configuration of the prostate gland being such that a Bottini operation afforded but little chance of relief, were unimproved. Our experience corroborates that of many distinguished observers, among whom may be mentioned: Bottini, Frudinburg, Willy Meyer, Casper, König, Guiteras, H. H. Young, R. H. Loux, Granville MacGowan, and Bolton Bangs, whose views are sufficient to refute the charges that this method of operating is "unsurgical," "is a blind operation," "is dangerous," "with relief only temporary, relapses are common," and "is attended by serious complications."

From a study of the statistics it will be seen that it is a justified surgical procedure of great value; and that it is indicated in a large number of cases. In the series of prostatic cases collected by Watson, he found that the obstruction at the vesical outlet was due, in nearly ninety per cent., to a median lobe enlargement, which condition is amenable to relief by the Bottini operation; especially if the operation is performed as soon as the symptoms make their appearance. The experience here recited refutes the charge that the procedure is unsurgical. If each case is properly examined so that the surgeon has a clear idea of the configuration of the enlarged gland, the condition of the urethra, the bladder and kidneys, the operation is by no means either a blind one, or one performed in the dark; not by any means so much so as the particular operation for stone known as litholapaxy. That the operation requires special skill and knowledge, there is no question, and that if it is properly performed in suitable cases the mortality is small and the results gratifying. The complications attending the operation as a rule are not serious. It has been stated by some writers that one of the dangers following the operation is a tendency to contraction of the vesical outlet, giving rise to stenosis. In none of the cases operated on by has this condition obtained. In no instance has a relapse occurred after operation. In four cases a second operation was deemed necessary because the obstruction was not entirely removed by the incisions made in the first instance, it being conceived wiser to repeat the operation, if necessary, and to do too little rather than too much. In three cases slight dribbling of urine followed the operation, which disappeared at about the end of three weeks; but not giving by any means the amount of trouble which so frequently follows the complete removal of large prostatic overgrowth. In no instance was the dribbling permanent.

Prostatectomy is as much a subject of controversy as is the Bottini operation. All agree that it is a perfect method of dealing with prostatic hypertrophy. Beyond this there is no unanimity of opinion as regards the most essential questions concerning it. Some believe it should be performed only in exceptional instances; others that it is indicated in all conditions, and that it is the only remedial measure to be employed. Some advocate the suprapubic route, others the perineal, while a few believe that these two methods should be combined. Many think that a partial removal of the gland, either by the suprapubic or the perineal route, is all that is needed.

The profession is still at variance as to the best method of performing perineal prostatectomy. A review of the literature of the subject shows that eighteen different operations have been suggested by as many operators, each recommending a different mode of attacking the prostate, and each asserting that by the employment of his method a more ready access to the organ will be attained; others offer some modification to the technique of some other operation or advise the employment of some newly devised instrument for the purpose; asserting that by employing the method advocated by them the time required to complete the operation is minimized, the amount of hæmorrhage lessened, and the death rate decreased.

Some recommend a partial suprapubic or perineal prostatectomy, others state that a complete resection of the gland should always be sought. From what has been said, it will be observed that the surgery of hypertrophy of the prostate gland at the present time is in a confused state. Any one without experience, who consults the standard works on the subject hoping to glean some definite information as to the best method of treatment, will be hopelessly bewildered, and will be at a loss to decide what is the best to adopt. Several methods of operating by means of a suprapubic, or suprapubic and perineal incision combined, have been suggested, each having its advocates.

Among the startling novelties recently advanced as the best method of attacking the prostate may be mentioned "the infrapubic section" —pushing aside the dorsal arteries and veins; dividing the deep fascia and part of the erector penis muscle, as well as the two prostatic ligaments. This method was suggested by Dr. E. Willy Andrews in a paper published in the *Journal of the American Medical Association,* October 18, 1902. These methods have not apparently met with the approval of the profession, as little or nothing can be found regarding them in the literature of the subject beyond the papers published by the gentleman who described them. They do not appeal to us as rational procedures, as we have found that the gland can be readily removed without so much unnecessary mutilation.

A larger experience, derived from a more extended opportunity to study this field of surgery, has modified our views respecting prostatectomy, which have undergone some changes from those which appeared in the *Philadelphia Medical Journal* of June 8, 1901.

The explanation of the change in our views is due to the belief that it is the duty of every progressive surgeon to keep abreast of the times, and to be ready to learn to modify his views in accordance with the lessons taught not only by his own ripened experience, but by that of other observers. Want of space precludes our going into the controversy on all the questions regarding prostatectomy which are still the subject of so much discussion. The results of our labors will be stated, the deductions which we feel justified in making will be narrated, and we trust that by this means we shall be enabled to throw some additional light on the subject.

We will begin with the axiom, from which we feel there can be no dissension, that the surgeon who desires to acquire the greatest success in prostatic surgery must be enabled to select from his experience a knowledge of that operation which is best suited to each individual case, and must be enabled to perform with equal skill and dexterity any of the various manipulations which may be necessary. It is no longer believed that any routine method is applicable to all forms of prostatic hypertrophy.

The questions regarding prostatic hypertrophy which are still *sub judice* are:

1st. Is the operation justified; if so, in what class of cases?

2nd. What results may be expected from the operation?

3rd. What is the mortality of prostatectomy?

4th. What length of time is required for convalescence after operation?

5th. What complications may be expected to arise during, or after operation?

6th. What operation is preferable?

7th. Should the organ be partially or completely removed?

8th. In performing a perineal prostatectomy, which is the best incision to employ?

We have had the opportunity of performing 55 prostatectomies which may be classified as follows:

Five complete prostatectomies (suprapubic incision).

Six complete prostatectomies (suprapubic and perineal incision combined).

Seven partial prostatectomies (suprapubic incision).

Thirty-eight complete perineal prostatectomies.

Of the eleven prostatectomies performed by means of the suprapubic incision, death occurred in two cases; in one, of suppression of the urine, and in one from uræmia. In each instance the operation was more or less prolonged and bloody, the patients being considerably shocked during the operation. In spite of every effort made to control hæmorrhage, there was a good deal of sanguinary oozing for at least twenty-four hours after the operation. In three instances there was considerable sloughing of the fatty tissue of the abdominal wall, leaving large wounds, which granulated slowly. In two cases a suprapubic fistula formed, which was closed with great difficulty. In all, convalescence was slow and some of the patients were critically ill for some time after the operation. In one instance in which an enormous gland was removed, dribbling of the urine resulted after convalescence, making the employment of the urinal necessary. In five of the cases the results obtained were all that could be desired.

It was found where a suprapubic and perineal incision were combined that the hæmorrhage was easier to control, the drainage a great deal better, there was less tendency to sepsis after operation, and the time of convalescence was shortened.

A partial suprapubic prostatectomy was performed when the obstruction was caused either by a projecting lateral lobe or a middle lobe, giving rise to a "valve formation." On opening the bladder the noose of an écraseur was adjusted around the protruding portion of the gland, which was easily removed; the operation required but a short time and was unattended by hæmorrhage, the patients making an uninterrupted recovery. The results obtained in these cases were most satisfactory. Some authorities condemn this operation and assert that the gland should always be entirely removed. The excellent results obtained by us from this mode of operating have been verified by the reports of numerous similar cases promulgated by other observers.

Of the thirty-eight perineal prostatectomies, four were performed by the Alexander method, three by the Pyle, and the remaining operations by the mode advocated by Bryson's modification of Alexander's operation (*St. Louis Medical Review,* February 22, 1902). The ages of the patients selected for perineal prostatectomy varied between sixty and seventy-three years. All were in comparatively good physical condition, all suffered more or less from residual urine, all had employed the catheter for over a year. The only complication presented at the time of operation was either atony or hypertrophy of the bladder, with chronic cystitis. Six deaths resulted, one from uræmia, one from sepsis, and one as the result of secondary shock. In but two instances was the hæmorrhage sufficient to cause alarm. No complications were met with during the operations, the time required to complete the work varying from ten to thirty minutes. In two cases a rectourethral fistula followed the employment of the silver perineal drainage tube. A study of the report of a number of similar operations in the hands of other surgeons shows that injury to the rectum by this method of operating has occurred not infrequently. In two instances the growth projected well back into the bladder, rendering it necessary to make a suprapubic incision, cutting down to the bladder without opening that viscus; thereby permitting an assistant to push the prostate gland into the perineal wound by means of his index finger. In three cases dribbling of urine followed the operation, which lasted in one case for over seven months, and in the remaining two for about three months. One patient recovered with a permanent perineal fistula, which required a second operation to close the opening. Six patients were lost sight of after leaving the hospital, but were doing well when discharged from the institution. Of the twenty-one remaining patients, sixteen were cured, four markedly benefited, and one was unimproved.

A study of these thirty-eight operations, in conjunction with the experience of other surgeons demonstrates that perineal prostatectomy is of great surgical value and is the most satisfactory method hitherto suggested of reaching the gland in suitable cases. The advantages of this method are: Only a short time is required to complete the operation; owing to the fact that the gland is removed without disturbing the inner capsule, the prostatic plexus of veins is not wounded and the resulting hæmorrhage is small in amount; there is little or no shock; and the neck of the bladder is uninjured. On the other hand, in those operated on suprapubically, the gland, being at some distance from the hand of the operator, is removed with difficulty, the operation is prolonged, the vesical neck is injured, and the prostatic plexus of veins is wounded, consequently the hæmorrhage is apt to be profuse and the shock is proportionately great.

(*To be concluded.*)

THE SUPPRESSION OF ROTARY VERTIGO; ITS BEARING ON THE PREVENTION AND CURE OF SEA-SICKNESS.

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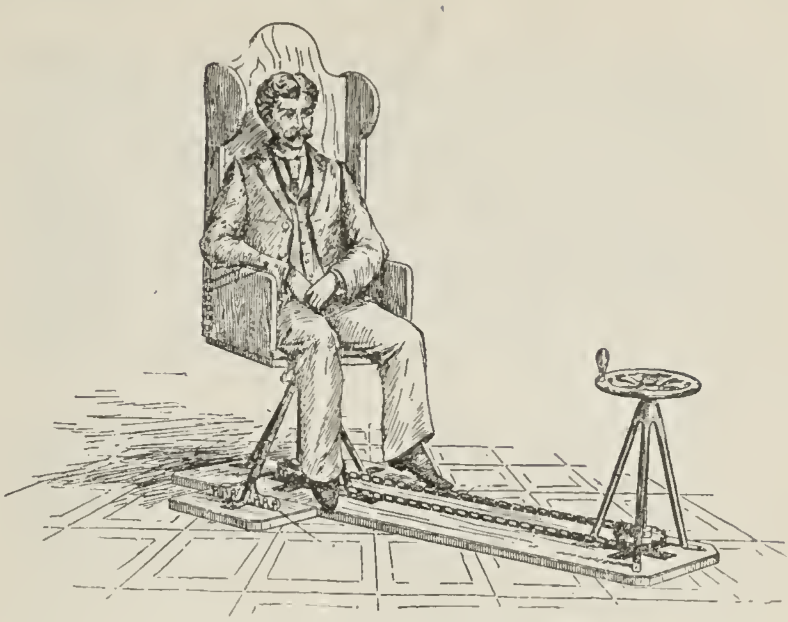
It is now nearly ten years since the publication of my first paper[1] on the state of consciousness in vertigo. The experiments then and subsequently instituted[2] were performed upon human beings, and were the first researches of the kind recorded in medical literature. Human beings are alone suitable for such undertakings, because, being intelligent, it is possible to test the reaction time as modified by the vertigo, and to conduct other observations of a more or less complicated sort, and to question them as to their sensations. Since my researches in this field got into print, others have entered the field, employing apparatus identical in principle, but conducting their investigations on animals, from which nothing whatever can be learned by interrogation.

Unlike my earlier publications, the purpose of the present paper is a purely practical one; and I shall, therefore, be as little retrospective as possible, confining myself largely to a brief description of the simple apparatus I first devised to produce vertigo mechanically in the subject, an appliance again brought forth from a convenient corner to serve the ends of the present writing.

This bit of mechanism consists of a high-backed wooden chair supported upon a steel shaft the point of which is pivoted below and the upper part of which, passing through a steel eye directly beneath the chair, is maintained in an upright position by four iron bars, two feet and a half high, and diverging downward, to rest upon a stout cruciform frame of wood, in length about six feet. From the opposite end of this frame rises another frame of rods, converging upward to a ring, through which passes a steel spindle pivoted at the bottom and provided at the top with a wheel and handle. This spindle is connected by chain and sprocket wheels with that supporting the chair, so that by turning the handle the chair and its occupant may be rotated at any speed desired. Finally, a stout strap secured to the chair and encircling the waist of the subject guards effectually against the mischance of a fall. To piece out with the eye what is lacking in the description, a cut, showing these elementary dispositions, is added.


The Author's Revolving Device.

By such simple contrivance it is possible, at one's convenience, to induce vertigo of all degrees of intensity; and then to make trial of various means for aborting or preventing it, including those directed to the suppression of the epiphenomena—the nausea and the cardiac weakness—troublesome complications not infrequently observed in susceptible persons when beset by vertigo of great severity.

Again, the dosage required to overcome vertigo of varying intensity may be determined, and also the length of time during which the suppressive influence of a given dose is maintained. All this has something more than a purely academic interest, or I should not have incurred the risk of affronting practical susceptibility by making record of it.

Not to weary by a long recapitulation of the various experiments undertaken with this apparatus—some of them abortive, others of remote practical bearing only—I shall confine myself to a brief synopsis of results obtained in what proved to be one of the most, if not quite, the most successful attempts of all. The experiment in question was first performed upon myself and subsequently repeated upon two of my friends. Being somewhat susceptible, I long since ascertained that thirty revolutions of the chair in the minute were sufficient in my case to induce a high degree of vertigo, giddiness and nausea being especially marked when the eyes, closed during rotation, were, upon its cessation, opened suddenly. This much being established, I began to look about for means to prevent the occurrence of the vertigo. A number of the remedies commonly employed in the management of vertigo of pathological origin were put to the proof. From the iodide of potassium nothing was expected, and nothing whatever obtained, and this regardless of the dosage. Nor were any better results to be had from either ergot, gelsemium, pilocarpine, quinine, digitalis, sodium salicylate, or antipyrine. Of purely secondary value, *i. e.*, as adjuvants, were belladonna, nitroglycerin, and amyl nitrite. Only when their administration was begun forty-eight hours before the induction of vertigo, and the dosage pushed till somnolence was induced, did the bromides render obvious service. So much for negative results and half-remedies.

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[1] Experimental Researches Regarding the State of the Mind in Vertigo. *New York Medical Journal*, September 7, 1895.

[2] The Nature and Treatment of Vertigo. *Journal of the American Medical Association*, March 16, 1901.

It remains now briefly to indicate those remedies that taken singly undoubtedly mitigate the severity of the vertigo, and that taken together either abort it or prevent its occurrence altogether.

First among such agents is hyoscine, and second, opium or its chief alkaloid. Each of these, when carried to the point of inducing obvious hebetude, is indeed capable of suppressing rotary vertigo of considerable severity. Hyoscine, however, is the better of the two; and better still are both together. When to these resorcin is added to obtund the sensibility of the stomach, and nitroglycerin (if well borne) to expand the capillaries and stimulate the heart, empirical demands are met and physiology satisfied.

INDUCTIVE PROOFS.

1. As already noted, I long since ascertained that thirty revolutions of the chair in the minute were sufficient to evoke in me a high degree of vertigo and of nausea not a little. After seeking to prevent the occurrence of the phenomena by the aid of various chemicals, with the negative or, at most, unsatisfactory results already indicated, I one day took per os ℞ hyoscine hydrobromide, gr. $^{1}/_{150}$; and, some time later, on the appearance of drowsiness, seated myself in the chair, causing the latter to be revolved at the speed—thirty turns in the minute—that, in the absence of medicinal interference, had always been sufficient promptly to induce in me both vertigo and nausea. Whirling in this fashion, I was made speedily aware of two things: First, that the vertigo was reduced to the proportions of an insignificant intrusion; secondly, that—paradoxical as it would seem—the nausea, while actually much reduced, still persisted with sufficient vigor to cause a sense of local malaise.

2. Dispensing for the moment with the problematical aid derivable from physiological subtleties, I determined to go forward empirically—to combat the sensations referred to the stomach, whether there or elsewhere originating—by obtunding as best I could the sensibilty of the organ. To this end, I immediately swallowed four grains of resorcin; and, the better to obtain the full benefit of its local action, took of water but a tablespoonful or two.

Ten minutes later I again seated myself in the chair, which, revolving at the accustomed speed, now utterly failed to produce the least gastric discomfort. There still remained, however, some slight adjuncts of vertigo.

3. These I determined to suppress, if possible, by still further obtunding the central nervous system. Accordingly, I swallowed at once nearly half a grain of opium, and waiting till I fancied absorption pretty well accomplished, seated myself, very drowsy, upon the chair. To my satisfaction, the turning was now accomplished without discomfort of any kind, and this whether the eyes were shut or open, or whether the chair was suddenly arrested in its motion or not. And finally, and still more convincing, there was the same absence of symptoms when the eyes, tight shut during rotation, were suddenly opened upon its abrupt cessation.

I remained thus vertigo-proof for nearly four hours, the persistence of immunity being determined by repeated tests in the revolving chair. The first indication of the return of susceptibility was a slight sense of nausea, followed in no long time by the characteristic dizziness.

CONCERNING THE APPLICABILITY OF THESE INDUCTIVE DATA IN THE MANAGEMENT OF SEASICKNESS.

To those who have had personal experience of the unique misery of *mal de mer* the bearing of the foregoing investigations must be obvious. Upon the author, himself a prey to the ill humor of the sea, the hint was certainly not without effect. It was, to say the least, a plausible inference that symptoms having such a close family likeness as those of rotary vertigo and seasickness might, despite all differences of genesis, yield to the sway of a common therapeusis. Whether, however, a fallacy or a truth would issue from the argument, experience, obviously, could alone determine. I resolved, accordingly, at an early day to put the matter to the touch of proof.

Agreeable to this project, I took passage during my summer vacation on one of the numerous coasting steamers sailing from New York, a frowsy, dilapidated veteran of the waves—a substitute, in fact, for the regular steamer—whose uncouth aspect of archaic building bespoke a cargo of giddiness and sick stomach. The passengers, like the ship, were an incongruous miscellany, with a common sympathy, however, for the dinner bell, which, sounding very opportunely as we left the harbor, brought them in a wistful scurry to the dining room.

Toward the end of the feeding, a cloud descended on the feelings of the company; we were well off the land; the dishes all a-rattle, the knives and forks a-dancing with the pans. Then a sudden lapse of gastronomic ardor; men, clasping their rebellious inwardness, sped upward to the deck. Soon the wind had greatly freshened, and the water, urged up by powerful gusts, made a series of hills and respectable dells, amid which aquatic treachery our venerable bark wallowed clumsily. In a twinkling the conditions on board were as painful as the most humane clinician could desire. A kind of carnival of the colic was everywhere. There was no vicarious appeasement; each paid to the waves the full measure of his holdings.

Courage and the stomachache are scarcely boon companions. Faith in theories, my own included, was ebbing fast, now, under the stress of an insurgent emptiness. Only a sickly hope made me fumble among the phials, whence came presently tablets of hyoscine hydrobromide, gr. $^1/_{150}$; opium, gr. ½. These I swallowed at a single dose, adding, ten minutes later, resorcin, gr. 3, and nitroglycerin, gr. $^1/_{300}$. From now on improvement was rapid. In ten minutes nausea had left me, and in twenty vertigo, too, had disappeared. A sense of warmth replaced the chilliness; a moderate drowsiness, the giddiness.

With this relief came a renewal of scientific zeal. I was seized with a desire for further proof. Could I—audacious thought!—by some further severity of testing, succeed, despite precautions, in bringing on the symptoms? Full of the infatuation, I went forward to where the spray was flying and the bow a-dancing up and down. Leaning over the rail, regarding alternately the reeling mast and the heaving waters, I sought for long to coax back some resemblance of the former sickness, but to no purpose. Torpid as I was at both the stomach and the head, neither the lurchings of the ship nor the nauseous wafts from the galley could prevail against me. For the first time in my life I felt all the confidence of a hardened rover of the sea. And with this exultation of immunity arose the desire to make others sharers in the necromancy. Thus altruistically enheartened, I made my way to the chiefest misery, in the cabin, where soon relief was sliding down a dozen throats. Ignorant of the susceptibility to remedies of the various persons submitting themselves to treatment, I went forward with some caution. This entailed delay, a delay which, had the amount of medication required to produce the necessary hebetude been determined in each case before sailing by testing with the revolving chair, could have been entirely avoided. Here, I think, is a practical point well worth heeding; for it is certainly a matter of consequence—to the subject at least—whether the symptoms are aborted at their inception, or whether, by reason of uncertainty as to dosage, they are allowed to develop. Briefly, then, what may be termed the *vertiginous coefficient* of the remedies should, both for scientific and practical reasons, be determined before the voyage.

What remains of the histories of these cases is soon told. Of those treated, nine were completely cured; two were benefited, and one—an anæmic, hysterical woman—was apparently unaffected.

For the rest, the plan of treatment adopted was that employed in my own case, save that instead of opium I gave morphine with atropine, adding a little cocaine to supplement the local action of the resorcin. With regard to the hyoscine, it may readily be understood that the dose varied somewhat, according to individual susceptibilty—from gr. $^1/_{200}$ to gr. $^1/_{80}$, in fact. Thus rendered centrally torpid, as well as at the periphery, the subject usually remained proof against both giddiness and nausea for from three to four hours, when the administration of a tablet, consisting of ℞ morphine, gr. $^1/_6$; extract of cannabis indica, gr. ¼; nitroglycerin, gr. $^1/_{300}$; strychnine sulphate, gr. $^1/_{60}$; resorcin, gr. 1; cocaine hydrochloride, gr. $^1/_6$, was sufficient to procure further immunity for a like period.

The behavior of those under treatment varied. Some preferred recumbency; others sat; yet others—the minority—patrolled the deck, marching blithely, in a kind of ecstasy of subdued bravado. Again, when sedation was a little overdone, the subject would seek his berth, there to sleep for several hours.

In concluding these observations, which I fear have been drawn out to weariness, I cannot forbear a protest against the too prevalent habit of lightly regarding the peculiar qualms of *mal de mer*. Only he who has known them can measure their nauseous horror. To the neurologist, moreover, they possess—or should possess—special interest, implying, as they do, such a unique upsetting of nervous function.

The author may, perhaps, obtain pardon for the wish that the experiences here informally set down may lead to more ingenious and scientific attempts to control an affection which makes travel on the sea such a terror to a large proportion of mankind.

53 West Thirty-eighth Street.

TECHNIQUE IN GENERAL ANÆSTHESIA:

HOW TO GIVE ETHER AND HOW TO GIVE CHLOROFORM.*

BY JOSEPH D. STERNBERG, M. D.,
PORTLAND, ORE.

The most practical thing for a doctor to know about an anæsthetic is how to give it. It is fairly well conceded nowadays that the anæsthetic should not be entrusted to everyone, and that as a rule the average physician is neither a good nor a safe anæsthetist.

Much has been written on the general anæsthetics, ether, and chloroform. The bulk of this literature pertains to their history, chemistry, physiological action, comparative merits, contraindications, danger, modes of resuscitation and statistical mortality.

We will not here discuss which is the safer anæsthetic, for surgeons have had their experiences, and, as a rule, have their preference. Moreover, it frequently happens, especially in country practice, that a choice is not possible. The question of most interest to us is, how to give an anæsthetic in the best and safest manner possible. He who would so give an anæsthetic must know the physiological action of both ether and chloroform. He must understand thoroughly the stages of anæsthesia, and more important yet, he must know exactly in what stage his patient is, and how to meet the various incidents of anæsthesia.

In order to accomplish this, he must know all the symptoms and signs of the different degrees of narcosis, and must be able to appreciate their value and trustworthiness to guide him in his arduous task and responsible position.

There is almost no such thing as a patient taking the anæsthetic badly because of some idiosyncrasy, and the sooner doctors recognize that, in the great majority of cases, it is given either well or poorly, the better. The credit should be given the anæsthetist for giving a good anæsthetic and not the patient for taking it well. In other words, he who is continually having trouble with the anæsthetic is a poor anæsthetist.

Whenever an anæsthetic is to be given, a preliminary systematic examination of the patient should always be made. It is important that the anæsthetist gain the confidence of his patient, as well as learn the mental and physical condition. Frequently the dread of the anæsthetic is more than that of the operation, and a few minutes in assuring the patient that everything is all right, and that he need not worry or be afraid, are not wasted.

In the physical examination the expression and features of the face should be studied, and the freedom of nasal respiration should be investigated; the size of the pupils observed; the frequency and character of both pulse and respiration should be noted; the heart and lungs examined; and whenever possible, a uranalysis made.

If to the anæsthetist is referred the choice of anæsthetics, he should decide on ether or chloroform, considering, first, experience in regard to their relative safety; secondly, the age and condition of the patient; thirdly, their physiological action with regard to the nature of the operation.

A preliminary hypodermic is not, in the great majority of cases, a necessity. It can, however, frequently be given to advantage, and whenever used should be given with some definite object in view.

As a rule, it is best to give the anæsthetic entirely on the operating table. This will avoid the delay necessary in transferring the patient from one room to another, the possibility of exposure during this procedure, and more important yet, it is difficult to keep an accurate knowledge of the anæsthetic while this manœuvring is going on, especially if the help is inadequate. Of course, all instruments and paraphernalia which are apt to frighten the patient should not be in sight. Before beginning the administration of an anæsthetic the patient should be well covered with blankets. Everything should be loose about the neck, chest, and abdomen. The mouth should be examined for false teeth and foreign bodies. An attendant should be present. Now tell your patient you are going to put him to sleep, that it will take about five minutes; that the fumes of the anæsthetic are a little disagreeable, but that this will not last long; that he must not talk or resist in any way; that you will give it to him slowly and carefully; and that nothing will be done until he is well under its influence. While the patient is being put under, the room should be absolutely quiet. Nothing is more apt to induce or prolong the stage of excitement than talking or the rustling about of nurses, nor should the handling of instruments in the room be permitted. The anæsthetist alone, if necessary, should advise, encourage, or admonish the patient while he is being narcotized.

Ether is best given from an open inhaler of the Allis or Lee type. The patient should be instructed to close the eyes and to breathe naturally. The common practice of urging deep breathing is not only unnecessary, but unsafe in some cases. Nor is it best to instruct the patient to count, as is so commonly done in administering chloroform, for this is not only not conducive to sleep, but is apt to bring on the stage of excitement which otherwise would be avoided.

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* Read before the Oregon State Medical Society, September 29, 1904.

Begin the administration of the anæsthetic slowly, holding the inhaler eight or ten inches from the face. As the mucous membrane of the respiratory tract becomes accustomed to the irritating fumes, gradually bring the cone nearer, adding at short intervals such quantities as your judgment and experience indicate as being advisable. In this way the smothering sensation of the first stage is largely prevented. By watching the facial expression you can be guided in the rapidity with which you can bring the cone to the face. Wrinkling of the forehead, closing the eyes tightly, and puckering the mouth are signs that the patient is getting it a little too fast, while coughing or holding the breath requires the withdrawal of the vapor, and when the patient is again quiet, the gradual resumption in less concentrated form. The cone once to the face, gradually begin increasing your dosage, if there is no coughing, gagging, vomiting, choking, or holding of the breath. As a rule, if care is taken, the majority of patients can be put under in from four to six minutes, with scarcely a perceptible stage of excitement.

The old time rule that ether should be given in as concentrated a form as possible has been the understanding of the profession, and even to-day many physicians exclude all air in ether anæsthesia. Experience has taught us that this practice is unnecessary and even dangerous. It is true that to induce anæsthesia the ether must be given in a concentrated form, but when narcosis is once established, the dosage and concentration are both to be diminished. The intensity of the action depends on the volume of the anæsthetic contained in the inspired air, and ether given in concentrated form for any considerable length of time, depending on the subject, will produce dangerous symptoms and ultimately kill.

Until anæsthesia is established "the cardinal rule to be observed in administering ether is, never to give it in such concentration as to interfere with natural respiration, or cause coughing, choking, or holding of the breath;" and to this we may add, when the patient is once under, give as little as possible for maintaining a degree of narcosis sufficient for the operation, scrupulously avoiding the dangers of a too profound anæsthesia and the unnecessary "soaking" of the patient.

Since individuals differ to such an extent that a degree of concentration which is requisite to produce anæsthesia in one, would cause much trouble with another, and since all operations and all conditions of patients do not require the same amount of anæsthetic, and since the longer the patient is kept under the influence, the less anæsthetic is necessary, depending on the case, it is evident that one cannot rely on the quantity of the anæsthetic used to indicate the condition of the subject.

To say that chloroform should be given diluted with 96.5 per cent. of air, or even by the drop method, means nothing, for the former method is practically impossible, and the latter admits drops to be administered at intervals of a minute, or so as to form an almost continuous stream. This being the case, one must judge the degree of narcosis by various signs and symptoms. In other words, the physiological effect produced by the ether or chloroform already in the blood is the only rational basis for determining whether the patient has had not enough, sufficient, or too much anæsthetic.

He who gives the anæsthetic must be continually diagnosticating. The general condition of the patient, the character of the respiration and circulation and the significance of certain reflex phenomena must be at all times thoroughly understood, for a positive appreciation of the meaning of all these, independently and in combination, is essential to a safe and skilful administration of either ether or chloroform. The anæsthetist who depends on one sign, for instance the conjunctival reflex, alone as an indication of the degree of narcosis, and as an indicator for more or less anæsthetic will occasionally kill a patient. He who depends on the respiration alone will get into more or less serious trouble at times. He who relies on both the breathing and pulse may give an anæsthetic comparatively safely, but it will be luck if it is a good one from an operative and scientific standpoint.

The respiration at all times demands our attention. No single sign is of more general importance, or a surer sign that the patient is not in imminent danger, than easy, full, regular, uncomplicated respiration. Usually the breathing is more quiet with chloroform than ether. This is not always the case, however, and he who strives to get a typical stertorous respiration of a deep ether narcosis always while giving ether, and he who attempts always to have patients breathe quietly while under chloroform, will probably give more anæsthetic than is absolutely necessary.

The somewhat quickened respiration of the first stage of anæsthesia has no particular significance, except in that it is a sign of excitement and partial narcosis. Toward the close of the second stage, irregular respiration is quite common, and holding of the breath is frequently noticed, and is usually a warning sign that a degree of surgical anæsthesia is about at hand.

Whenever the patient holds the breath from any cause, remove the cone or inhaler. This should be an invariable rule with chloroform, for if one has been dropping on the chloroform continuously for several seconds, while the patient is not breathing, and then, as always happens after this holding of the breath, the patient takes a very deep inspiration, the anæsthetic is apt to reach the heart in a concentration sufficient to paralyze that organ, and that too from a single deep inspiration. There is no doubt that many chloroform deaths have occurred in just this way, even when the patient was but partially under, perhaps straining or talking a moment before.

One should always recognize holding of the breath. The tense condition of the muscles, the fixed chest and abdomen, the tightly closed or stiffly opened jaw and flushed face can scarcely be mistaken. During the retching movements of vomiting the same condition is at hand. Removing the anæsthetic and drawing the jaw forward invariably again starts respiration. Breathing which brings into action visibly the auxiliary muscles of respiration, whether stertorous or not, must always be respected, and is usually a sign of profound narcosis.

It is always well to leave the neck and upper part of the chest exposed, or so covered that one might frequently observe for this sign, and whenever this labored respiration is noted the anæsthetic should be withdrawn until the breathing is again natural. The rapid, shallow, and nearly always quiet respiration of shock should not be confused with the respiratory action caused by the anæsthetic, and thus lead to the general condition of the patient being overlooked.

The anæsthetist must train his ear to hear every breath and to detect any and every change of respiration. Moreover, he should be continually verifying his auditory impressions by his eye, observing the movements of the chest and abdomen. A noisy respiration heard so frequently in dilating the sphincter ani for rectal operations is quite characteristic, and should not cause alarm or lead to giving the patient more anæsthetic unnecessarily. The breathing is quieter as a rule in operations on the extremities than upon the trunk, particularly during deep manipulations of the abdominal viscera. Occasionally the breathing is so quiet that a superficial observation appreciates no respiratory movement, which naturally gives cause for alarm. The hand lightly placed over the nose and mouth will detect breathing with certainty, and is a much more positive and more practical method than attempting to hear the breathing by placing the ear to the face of the patient, in which position additional knowledge obtained by the eye is lost. Where nasal obstruction is suspected, mouth breathing is to be encouraged and facilitated by keeping the jaws slightly apart.

The pulse, like the respiration, should be watched from the beginning. This is particularly imperative when chloroform is being given. It is best taken from the facial artery where it crosses the body of the lower jaw; for the hand thus employed can likewise hold the inhaler and the jaw forward at the same time. The pulse is apt to be accelerated from excitement and to be of more volume and of a better character in the second stage of anæsthesia. When narcosis is established the pulse should be regular, and should not differ markedly from what it was before the anæsthetic was given. The interdependence of respiration and circulation must always be borne in mind, as anything interfering with the former will naturally have an effect on the latter. Irregular heart action under anæsthesia should always be a warning of danger. In long anæsthesias of either ether or chloroform the pulse has a tendency to become weaker and weaker, and this natural impending heart failure demands that as little anæsthetic be given as possible.

Of scarcely less importance than the respiratory and circulatory action as a guiding sign in giving an anæsthetic, is a sign which is dependent on both—namely, the color of the patient. Not infrequently the first warning of danger is a change of color. Of so much importance is it continually to watch the color, that the face should never be covered with a towel or piece of gauze, and an anæsthetic should never be given where there is not a good and sufficient light upon the patient. A forewarning may be detected by a change in the color of the angles of the mouth and nose, in the hue of the cheek, the tips of the ears or the finger nails, and the capillary circulation of the neck and chest. One may not be able to detect any change in the pulse or breathing, and yet the patient beginning to turn pale is a sure sign that something is going wrong; and usually if due to the anæsthetic, it will be found to be the result of a too profound narcosis. Naturally, the face is apt to be flushed in the early stages of anæsthesia with either anæsthetic. When narcosis is once established with chloroform or ether the color should not change markedly from that normal to the patient, the anæmic remaining pale, and the plethoric retaining flushed cheeks and ears; though a tendency to look somewhat pale under chloroform and to have a suffused face while under ether is natural, and the latter case particularly should not give rise to anxiety. Pallor coming on in the course of an operation may be due to loss of blood and shock, and not to the direct depressing influence of the anæsthetic, but when in a short operation the loss of blood has been inconsiderable and there is no reason for shock, the pallor is to be looked upon as the result of the anæsthetic. Less anæsthetic, more air, and lowering the head are the surest and best means for combating this condition.

Cyanosis under anæsthesia is more commonly met with, and here, as elsewhere, denotes an insufficient oxidization of the blood. This is apt to be caused by the tongue falling back and closing the glottis or by an accumulation of mucus. By drawing forward the lower jaw and turning the head to one side, one can nearly always overcome any cyanosis or difficulty in breathing arising from this source. It is seldom that tongue forceps is necessary. Mucus obstructing respiration should be removed. A frothy mucus, with pouting of the lips, is seldom observed, except in profound anæsthesia, and with this condition it has been noted that little anæsthetic is necessary to continue the narcosis. In the obese the Trendelenburg position is apt to interfere with respiration to such an extent that cyanosis develops, and it is advisable to place the table again on the level. Occasionally cyanosis develops because sufficient air cannot permeate an obstructed and soaked inhaler, and one should always be sure that this is not causing the trouble. Whenever cyanosis appears the cause must be sought and eliminated. Cyanosis is common during the retching of vomiting. The proper color quickly returns when the patient is again easy. The anæsthetic in too concentrated a form will cause cyanosis, and in these cases it is more urgent than in any of the others, that the color be permitted to return before the anæsthetic is continued, even in a less concentrated form.

Next in order and importance we will take up the eye symptoms and reflexes of anæsthesia. I consider the eye reflexes of great importance, and continually make use of the eye to diagnosticate the degree of narcosis. A careful study here will elicit some valuable information. The pupillary reflexes are not an infallible guide to the degree of narcosis. As a rule, a moderately contracted immovable pupil denotes surgical anæsthesia. The narcosis should not be beyond the point where this pupil will not slightly dilate and react to the first incision and to painful manipulations. One should not endeavor to obtain a pin-point non-reacting pupil. Moderately dilated, rapidly reacting pupils indicate a less profound degree of anæsthesia, and ordinarily will admit more anæsthetic, if it is required. When morphine or atropine has been given the patient the pupil becomes unreliable as a guide, depending upon the physiological action of these drugs. Moreover, one should not be deceived in a case where the pupil is affected by some local or central abnormal condition. A widely dilated and immovable pupil is a sign of imminent danger, but the surgeon should not forget that profound shock and profuse hæmorrhages without anæsthesia, can account for widely dilated and immovable pupils. An insensitive conjunctiva associated with contracted pupils and general relaxation of muscles denotes surgical narcosis. One should not touch the cornea. Some valuable information can be obtained from the eyelids. When you observe an almost wilful resistance to your opening the eye, it is safe to give more anæsthetic. A complete relaxation of the lids seeks other confirmative evidence of the degree of narcosis before proceeding. An excellent reflex for frequently testing is winking of the eyes on lightly brushing over the cilia with the finger. It is necessary to abolish this reflex in most major operations. Tears do not come into the eyes of those well under. Take your time in reducing body rigidity associated with widely opened eyes. Watch patients closely who sleep with their eyes half open. It is better to observe both eyes than one. Eyes fixed and turned up or down denote deep narcosis. When they change from this and begin to roll together from side to side the patient is less profoundly under, and if no more anæsthetic is given, will soon show other signs of coming out. There seems to be no rule whether convergence or divergence denotes different degrees of anæsthesia. The eye reflexes change more quickly, and are possibly of greater significance under chloroform than under ether.

When surgical anæsthesia is once established, to maintain it equally is a task dependent on close attention. Certain symptoms are recognized as indicative of less profound narcosis. These are any muscular action of the face, neck, or limbs, rigidity, straining, swallowing, yawning, hiccoughing, vomiting, or holding of the breath; while certain grunts and groans are quite characteristic of returning consciousness.

342½ Washington Street.

IS MILK A FACTOR IN THE SPREAD OF TUBERCULOSIS?*

By J. O. COBB, M. D.,

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For years the question of milk infection has been before us in its many and varied phases. With all that has been written and spoken, with so much creditable investigation, with the abundance of material to draw from, it would seem that we should be able to fix upon a definite opinion as to whether milk is or is not a factor to be reckoned with. But the real trouble with the investigation of such a subtle disease is that our mental aspects are different and we look upon the same objective phenomena from opposite view points. Here one hypertheoretical mind draws out before our eyes the word pictures in beautiful colorings wherein he shows us cellular retrogression and susceptibility, heredity and predisposition, weather statistics and altitudes, darkness and dampness, and a score of other theories too finely drawn for ordinary mortals. Or, again, we have the scientist working constantly with bacillus and section, who in time sooner or later has the horizon of his mental vision narrowed to the microscopic field. Or still again we have the best class of the three, the sociophthisiologist, the big hearted fellow who sees all our ills in the squalor of the tenements and lays the odium of the spread of tuberculosis entirely to this fault in our social life.

Each of the contestants is partly right and partly wrong, but the best we can say is that their views only have remote bearing upon the subject. We want a common ground, something definite, tangible, full of common sense and freed from the obscurity of words. Tuberculosis possesses a definite pathogenicity, and its method of spread and the manner of its onset follow well defined paths.

We are all honest in wishing to find the common cause of the spread of this disease, and we should come nearer to the truth if we allowed our minds to digest every phase of the question, instead of mounting upon a hobby horse and tilting only in the direction of the things we should like to prove. There is hardly a man in America who, for personal reasons, would not like to believe Ravenel and Salmon right in their contention against Koch, but still pride in our own countrymen must not stay one's judgment or belief.

Koch was substantially correct in his assertions, though he made rather too positive a statement, that cattle could not be infected with tubercle bacilli of human origin, and Ravenel has utterly disproved this: however, the mere fact that Koch was probably only technically wrong need not of necessity mean that he was wholly wrong. The casual reader who is not trained in experimental medicine is easily influenced from one dictum to another as the balance turns to Koch and back to Ravenel, ever up and down and seemingly no nearer solution.

There is not the slightest doubt that nearly all animals can be made to develop well defined lesions from the human bacillus, but it is asserted that it is not a common occurrence, but one happening with enough regularity to justify us in noticing it clinically as a causative factor. In like manner it is admitted that, reasoning from the same analogy, the human species might be made to develop the disease from bacilli of animal origin.

For clinical purposes and for means of prevention these accidental and possible diversions of the bovine bacillus to man, or of the human bacillus to bovines, cannot receive serious consideration. We must broaden our field of vision and look about for the common method by which man is infected, and one should stand ready to reject the occasional and accidental, for they are not worthy of our serious thoughts.

Tuberculosis is a contact disease, one in which the animal receives the dosage of infection from some other animal of its kind or from an animal in the same class of susceptibility. For example, we know that an infected cow infects her own food box and the food box of her neighbors, and so on throughout the herd. For clinical purposes, then, the cow gets her infection from another cow, and no one contends that, commonly speaking, bovine tuberculosis is spread otherwise. It is acknowledged that swine tuberculosis is contracted commonly from feeding with tuberculous milk or offal from infected bovines; and in avian tuberculosis the disease is spread from one fowl to another through infected dejecta. Accepting all this, it leaves the question of milk infection to man unsettled.

Whatever is the medium of infection to one nation or one race of people, we must naturally presume that the medium would be the same to all other people; that is at least a fair postulate, and if we use it in our arguments, we must apply it strictly to all classes of society. If it is milk for the poor it must be milk for the rich; if it is milk for the American and European, it must be milk for the Chinaman, the Hindoo, the Japanese, the Alaskan Indian. No amount of twisting controversial eloquence is going to change this phase of the subject, for common sense will dictate that the Chinaman gets his infection in exactly the same way as you or I do. Here we can stand on common ground, for the facts are plain, the logic seemingly sound, the deductions reasonable.

And even granting that the infection among our own people is by milk, let us see whither this line of reasoning would lead us. The sociophthisiologist points with unerring finger to the fact that it is the poor who live in squalor in whom the disease gains a devastating foothold. The man with milk proclivities would say that because of the lowered vitality the victim succumbs to infection from tuberculous milk. A little investigation ought to set this aside, for the reason that the very poor use comparatively little milk and that the better classes do use it in enormous quantities. In the poorer classes the young adult seldom drinks milk, and among sailors who have had the disease I have made a special point to ask if they used milk, and the vast majority have never used it at all.

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* Read before the American Climatological Association, at Philadelphia, June 2, 3, and 4, 1904.

Lowered vitality due to life in poverty and squalor! This will not help the milk infectionist. The matter of dosage of the infective agent must count for something, and the class of society using the largest quantity of milk should show the greatest amount of infection. And you, who believe solely in the lowered vitality theory, look about among your own patients and mark out the vast majority of your cases as strong, healthy persons prior to the onset of the disease. If we compare man to man, woman to woman, especially child to child, the poor will show stronger and more robust than the well-to-do.

Surely, tuberculosis is a filth disease. Plague, cholera, typhoid fever, smallpox, almost any of the communicable diseases affect the poor more than the rich; but even so, it is plain that this is so, not so much because they are poor and ill nourished, as because they are filthy in their habits and live in the constant presence of the contagium, and, therefore, receive the infective material with regularity and in greater dosage. I am perfectly willing to step aside here and grant to the phthisiosocialist, to Knopf, Flick, and the others, that the infection will have a wider range because of this poverty; but again it must be plain that the social conditions serve the exact requirements for introducing the proper amount of the contagium into the bodies of these people who necessarily live day in and day out in such an environment.

Now, there are many interesting phases in this spread of tuberculosis, none of which has received more attention than the question of milk infection. To bring the matter before medical men in the proper way, I began a collection of data from all over the world, and by the kindness of officers of the State department and other officers of the Government, some valuable facts are presented which seem worthy of careful consideration. One of the most important items of information Salmon himself furnished me, and that was that the cattle of the isles of Jersey and Guernsey were free from tuberculosis and were admitted into this country without the tuberculin test. Naturally the question presented itself, are the natives of these islands also free from the disease?

Through the American embassy at London some very interesting reports and personal letters were obtained confirming the reports that the cattle on the isles of Guernsey and Jersey do not have tuberculosis. These letters and reports also show that the residents of these islands do have tuberculosis, just about as much as we should expect to find elsewhere under similar environments. Dr. E. Stanley Hoare, the medical officer of health for Guernsey, had already taken notice of this phase of the subject, and he called attention to it in his report of May, 1902. In the Isle of Jersey the cattle are free from tuberculosis and the people have it just about as they do in Guernsey. There seems to be a flaw in the milk theory here.

The statement has been made a number of times that the disease was unknown in Iceland up to a few years ago. Dr. Jonassen, the State physician, in a letter to his Government in reply to mine, states that the disease has existed in Iceland certainly from 1849, when a Danish physician, Schleisner, reported upon it, though there were but few cases found. The disease has increased since 1890, being influenced, he thinks, by the influenza epidemic. "In regard to cow's milk," he says, "it may be stated that it is one of the most important articles of food on every farm. This is the case now and always was the case, even at the time when tuberculosis was seldom found in Iceland."

I have been unable to ascertain if the cows of Iceland have tuberculosis, as there seems to be no inspection or examination. From another source I learn, through Mr. J. Vidalin, of Reykjavik, Iceland, a prominent merchant there, that he had never heard of the cows being infected. The cattle are all native and it would prove interesting if the Danish Government would send an expert to Iceland to test them out.

Lieutenant D. N. Jarvis, of the U. S. Revenue Cutter Service, has had an extensive experience with the Alaskan Indian, and he writes in answer to my queries:

"1. The Alaskan Indian, including the Esquimo and Alieut, apparently has consumption of the lungs to a great and increasing extent. This holds true in all parts of the country.

"2. He does not use milk of any kind as an article of diet to any extent, and cow's milk not at all. In some parts of the country, particularly Southeastern Alaska and in the neighborhood of large mining camps, condensed milk is used by the Indians when it is possible for them to buy it, but I should say that even this cuts no appreciable figure in his diet."

Dr. S. J. Call, also of the Revenue Cutter Service, in answer to my queries writes that:

"1. Alaskan Indians have consumption of the lungs, and this disease is one of the most prevalent found among them, particularly those of the Aleutian, Pribiloff and Shumagin Islands, and the inhabitants of the coast.

"2. The great majority use very little cow's milk or canned milk. In fact, some of them have never seen a cow. In some localities they prefer the condensed article to any other kind, not so much for food as they do for the manufacture of their beer or kwass. This is because it contains more sugar than other varieties."

You who are interested in the vastness of things, turn to the population tables and see there that the majority of the people of the world do not use milk as an article of diet. Turn to China with its immense population, to Japan, the Hindu, and most of the Oriental races. In Hindustan the clansman who does not drink milk or eat meat dies with equal constancy alongside of the Mohammedan Hindu who does eat meat and drink milk. Surely there is something else at work in the spread of the disease among these peoples.

The data concerning Japan and China have been previously published, but they are again brought to the notice of the thoughtful reader.

"The prevailing impression that China is overcrowded is incorrect. It is true only in certain regions near the sea coast, such as Canton and Shanghai. The population of the whole empire of China Proper (which excludes the sparsely settled regions of Manchuria, Mongolia, and Thibet) averages considerably under 300 to the square mile, even accepting the best estimate made of the total population, 380,000,000, furnished by the Imperial Maritime Customs reports. The most densely peopled province is Kiangsu, in which Shanghai is situated, which contains about 850 to the square mile But this is a most fertile plain, penetrated in all directions by navigable waterways. The province in which Canton is situated averages about 241 to the square mile, as against Java's 554 or Belgium's 579. There is overcrowding, of course, but it is a feature of certain parts, just as it is at home. Now as to your queries:

"(1) For reasons above given, it is impossible to secure any statistics that will show the relative death rate of tuberculosis as compared with other diseases.

"(2) My own impression is that the disease is quite common, not only in crowded districts, but elsewhere. This impression is borne out by the testimony of medical missionaries and others. Dr. S. Wells Williams, in his *Middle Kingdom*, Vol. II, page 130, says that consumption is common at Canton and Chusan. The latter place is an island off the coast near Ningpo, where formerly the British made a settlement, afterwards abandoned. Last autumn I was requested by Mr. Conger to make some inquiries into the prevalence of certain diseases; among them tuberculosis was mentioned. I wrote to medical missionaries in various parts of China, and from their reports I gather the following:

"Dr. Peck, of Pae-ting Fu (eighty-five miles southwest of Pekin), says: 'Tuberculosis in all its forms is the great scourge of North China. The bacillus produces its characteristic ravages not only in the lung tissue, but in the bones, the skin, and bowels. The habits of life among the people make every house a culture bed for all sorts of bacteria and bacilli.' Dr. Peck has had twenty-two years' practice in this region.

"Dr. Gaterell, of Pekin, wrote: 'With regard to syphilis and consumption I would say that both these diseases run riot in this part of China.'

"Dr. W. H. Boone, of Shanghai, one of the oldest American physicians in China, says: 'Consumption and cancer are common in this part of China.'

"Dr. Macklin, who has had seventeen years' practice in Nankin, says: 'Syphilis and tuberculosis are exceedingly common.'

"(3) The use of milk as food by the Chinese is so rare that one may say practically that they do not use it. I have never known a Chinese to use it, except where he had acquired a taste for it by living with Europeans; but the Manchus and Mongols use it in large quantities. I have not been able to learn as yet whether or not they suffer more than the Chinese from tuberculosis. I have known human milk to be prescribed by Chinese physicians for aged people, but not cow's milk. One reason may be that very few cattle are reared by the Chinese, and those few are kept for plowing, not for food. An exception may be noted in the case of Mohammedan Chinese, who do eat beef, but even they do not, so far as I have observed, use the milk. Ordinary Chinese are averse to eating beef from religious scruples.

"(4) I do not know whether the cattle in China are much infected or not; shall make inquiries upon this point and write you again."

The Reverend E. T. Williams, secretary of the American Legation, Pekin, says:

"First, it may be stated positively that cow's milk is a factor of no account in the ætiology of tuberculosis in Japan, for the reason that, speaking generally, it is an uncommon article of food among the Japanese. This is a fact so familiar to every observant traveler in Japan that it requires no further comment. According to the census of 1899, there were in Japan 769,163 cows and 483,702 bulls, and in the same year 208,877 cattle were killed for food. The population was 44,260,642. The cattle are unevenly distributed, but in one large district averaged only about 9 per 1,000 of the population. At a true Japanese hotel I have never seen milk or any article of food containing milk, unless specially ordered, and in the country and smaller towns it is usually not to be had. Of course, it is used in the large cities where the foreigners dwell. Butter and cheese are largely imported from Europe, but, generally speaking, are not used by Japanese. Ice cream, I may mention, is attaining some popularity with the city people. It seems probable that the causes of tuberculosis do not differ essentially in Japan and America unless an insufficient dietary and comparatively temperate habits as regards the use of alcoholic liquors may influence the mortality in the former country. Total number of cows for milking purposes in Japan 25,534 (1901). They are very unequally distributed, thus: Tottori Ken, population 412,000, contained in 1901 only 56 cows for milking purposes. Tokyo, population 1,907,000 (not including about one quarter million non-resident soldiers and students), contained 3,400 cows for milking purposes. The chief use of cow's milk among the Japanese is medicinal, it being prescribed by physicians in certain cases of illness.

Year.	Population of the Japanese Empire.	Died from Consumption.
1897	43,288,863	65,597
1898	43,714,142	72,708
1899	44,205,873	75,796
1900	44,710,073	78,972
1901	45,227,464	81,669

"Among those who died from consumption during the year 1901 there were 42,259 males and 39,410 females; total, 81,669.

"To Assistant Surgeon Dunlop Moore,
United States Public Health and Marine Hospital Service,
Yokohama, Japan."

In the Philippines milk is seldom used, and in Cuba and all the Spanish American countries, milk is invariably boiled before using, and yet we know they have tuberculosis. These are facts that cannot be ignored and lightly set aside. To reach a correct understanding of the causes of the spread of the grim monster, we must lay aside sentiment and come face to face with the truth, and at the bovine infectionist all the above facts are shaken as the red rag of challenge.

New Building of the Michigan College in Detroit.—Within a few days work will be commenced on the new building for the Michigan College of Medicine and Surgery, which is to be erected on the ground adjoining Emergency Hospital at Porter and Second Streets. The plans are nearly completed. The building is to be 50 by 80 feet, with three stories and a basement, and will be of brick, concrete, and cement. Dr. Hal C. Wyman, dean of the college, while traveling in Egypt, was impressed with the architecture of that country, and the architect was instructed to design the new college in that style. The basement will contain the animal laboratory and preparation rooms, the janitor's apartments, and furnace room. The first floor will be given over to museum and library rooms and an auditorium, 50 by 50 feet; on the second floor there will be four lecture rooms and the third floor will be devoted to anatomical laboratories.

MORPHINISM: ITS SYMPTOMATOLOGY.

By CHARLES J. DOUGLAS, M. D.,

BOSTON, MASS.

Of all the drugs that enslave morphine is the unapproachable chief. For tenacity of grip and disastrous effects upon its habitues it is not comparable with any other drug. While extremely useful as a servant in certain conditions, yet as a master it knows no mercy. It is the demon king among drugs,

> "Than whom, Satan except,
> None higher sat."

The consumption of the various preparations of opium is rapidly increasing. Since 1898 the population of the United States has increased about ten per cent., while the importation of opium has increased about five hundred per cent. As the medical profession probably uses less opium every year in legitimate prescribing, this great increase in its consumption must be attributed wholly to the habitual users of the drug. These unfortunate sufferers are found among all classes, but particularly among the intelligent and refined. I have treated many physicians for morphinism, and I believe it is more prevalent among them than is generally supposed.

Causes.—I regret to admit that the physician's prescription is a cause in many cases. The continuous administration of this remedy for any considerable length of time will surely result in a bondage from which the patient cannot escape unaided. If he is told what he is taking he is liable to continue its use after the physician has ceased to prescribe it, and thus the drug addiction becomes firmly established. If physicians would avoid this danger they should never inform their patients when morphine is prescribed.

The willingness of a certain type of men to mortgage the future for the pleasure or comfort of the passing moment is responsible for much recklessness in the self-administration of drugs. The narcotic or stimulating drug that produces a sensation of abnormal comfort and well-being to-day, will result in an equal amount of discomfort to-morrow, unless the dose is repeated. There is always a "difference in the morning." Therefore the drug is taken day after day till it becomes such a necessity that it cannot be abandoned without producing more suffering than the victim can endure unaided. As a rule it may be said that pain, or some form of discomfort, is the cause assigned for the initial doses of morphine. The high nervous tension exhibited in modern social and business life probably has some causative relation to morphinism in many cases. This is largely a modern disease. Previous to the invention of the hypodermic syringe, about forty years ago, the habitual use of opium was, I should judge, comparatively rare. This useful instrument seems to have been a factor in the rapid increase of morphinism.

The symptoms of morphinism are as numerous as those of hysteria. Frequently no objective symptoms appear during the first few months. At length a peculiar pallor may be noticed, with languor and general debility in the morning. While the patient may be seriously ill in the forenoon, he may apparently be as well as ever in the afternoon and evening, if he has access to morphine. He is distinctly a night blooming plant, so to speak. From ten to twelve o'clock at night he blossoms out into the full possession of all his faculties. At that time he can work with brain or hand with even more than normal vigor. If he has any difficult or unusual work to do, he will begin operations about the time every one else is preparing for sleep. Midnight is his hour for writing letters, and a wonderfully fluent writer he is when properly stimulated with opium. If sufficiently educated his sentences may be long and involved, containing many details, all woven together, however, with grammatical accuracy. De Quincy evidently wrote *The Confessions of an Opium Eater* under the influence of the drug. On every page can be seen the unmistakable earmarks of opium stimulation.

Among the other nocturnal activities of morphine patients is eating. The average patient will consider it a great hardship if he cannot have food left in his bed room for eating during the night, and he will usually prefer that it be of a sweet nature, such as cake and other pastry. Most of them are very fond of candy. In this respect there is a marked difference between alcoholism and morphinism. Rarely does an alcoholic patient care for sweets. But I have known men, who, on abandoning alcohol for morphine, at once develop a great fondness for candy, which they formerly disliked. The appetite is usually capricious, with great fondness for some peculiar article of diet. A patient now in my sanatorium prefers fruit and candy for her aliment, with cigarettes plentifully interspersed. Another subsisted largely upon pie, and particularly on going to bed insisted upon a piece cut at a liberal angle for his midnight repast.

Most of these patients smoke cigarettes excessively and are very persistent and insistent in the matter. So general is this that it naturally leads one to suspect that these bits of paper contain something besides tobacco, in spite of the manufacturers' denial. It is possible, however, that the effect of nicotine laden smoke passing over the mucous membrane of the mouth, nasal cavity and other respiratory surfaces is the only drug action that is obtained. Another characteristic is a fondness for perfumery, which they use with odoriferous prodigality. They are abnormally sensitive to cold, and in winter want hot rooms day and night. The cigarette smokers are quite happy with a close, unventilated room, the temperature at 80° F., and the air loaded with tobacco smoke. Perhaps it is this sensitiveness to cold and exposure that causes many to object strenuously to the external application of water. Cleanliness may be next to godliness, but perfumery covereth a multitude of odors.

Another common peculiarity is a tendency to lose and misplace things. Their personal effects are apt to be in hopeless confusion. One of my patients brought to the sanatorium four large trunks, and she seemed to spend most of her days and nights in unpacking and packing those trunks in search of lost articles. How she managed to misplace so many things in so short a time is an interesting psychological study. Possibly in some cases their tendency to secretiveness may incline them to hide articles, and their impaired memory may cause them to forget where they were placed.

Procrastination is a common characteristic. Tomorrow is their watchword. I do not recollect a single morphine patient who arrived at our sanatorium on the day appointed, unless, like the office-seekers, he is " in the hands of his friends."

The moral symptoms of morphinism are often marked. While patients of the highest character are subject to this disease, yet if morphine is taken long enough and in sufficient quantities, a remarkable moral strabismus is liable to develop. Bacteria of degeneracy seem to be injected with the drug. While strict truthfulness is maintained by some, yet advanced subjects are usually star performers in the Society of Ananias. In some cases the ethical brain seems paralyzed. The action of morphine in this respect is remarkable. After the abandonment of the drug, the patient's normal regard for truth will be wholly restored.

Of course, it will be understood that all these symptoms are not present in every case. For example, I have now under treatment the subject of a mild case that exhibits hardly one of the symptoms herein described. She is a cultivated woman of intelligence and refinement, and her principal symptom is melancholia. I have no doubt, however, that many of the other symptoms would have developed had she used the drug for a longer period. The deleterious effects of morphine are dependent more upon the length of time it is used than upon the quantity. Half a grain daily for ten years will produce more serious consequences than ten grains daily for one year.

The treatment of this interesting and peculiar ailment deserves a separate chapter. These patients should not be treated as moral delinquents, but rather as sufferers from a painful and serious malady. The moral symptoms are but secondary. Morphine patients are great sufferers in both body and mind, and they deserve the most kindly and sympathetic care. The disease is entirely curable, and, in view of its serious nature and its prevalence, deserves more attention than the medical profession has accorded it.

321 CENTRE STREET, DORCHESTER.

ADENOIDS IN INFANTS.*

By HERMAN JARECKY, M. D.,
NEW YORK,
VISITING OTOLOGIST, HARLEM HOSPITAL; EYE, EAR, AND THROAT SURGEON, SYDENHAM HOSPITAL; ASSISTANT SURGEON, MANHATTAN EYE AND EAR HOSPITAL, ETC.

Adenoids in infants under three months of age are so exceedingly rare that many competent observers have denied their existence. In a general search through the textbooks and literature on the subject, I found only casual references to the condition.

Lennox Browne (1) speaks of having seen cases, and of having operated on more than one infant of a few weeks' old. Hall (2) says they may be congenital, but then adds that no dissection had confirmed this theory. Kyle (3) and Holt (4) mention that they may exist at birth. Bosworth (5) remarks that the disease is essentially one of child life developing in infancy, and probably in some cases congenital. Stewart (6), Huber (7), and Birkett (8) each report one case. With these exceptions, all speak of adenoids as making their appearance at six months or later.[1] Shurley (9) refers to Jonathan Wright as having shown that the lymphoid tissue is not early developed, the nasopharynx of infants being usually smooth. So, under the circumstances, I thought the following cases that had come under my observation would be of interest to the members of the society:

CASE I.—November, 1899, Arthur O., eight weeks old, was referred to Dr. J. H. Waterman, for treatment for an inguinal hernia and a necessary circumcision. In operating, a few whiffs of chloroform were given and an obstruction to breathing was noticed. At the doctor's request, the mother consulted me, saying that the child had snored terribly from birth, and that during feeding, the child would drop the nipple at frequent intervals, apparently to get air, and that it had never enjoyed a thoroughly sound sleep. Upon examination, I found the baby, which was ten weeks old, miserable, puny, and ill nourished, the cervical glands enlarged, the nostrils and throat clear, lungs negative, bowels regular, digestion good, temperature and pulse normal. The snoring sound complained of by the mother was marked whenever the child closed its mouth. A diagnosis of adenoids was made. A small ring ear curette bent at an angle was passed into the pharynx, and several masses of adenoid tissue were removed from the vault, to the complete relief of the symptoms.

CASE II.—October, 1901, Bernard L., aged eight weeks, was brought into my office. The mother complained that she was afraid at times that the child would smother, that it snored terribly, and that it could not nurse properly, the symptoms being practically the same as in the preceding case. The child was also poorly nourished, although a breast fed baby by a very intelligent mother. Diagnosis of adenoids was made, and the growths removed with resulting cure.

CASE III.—Baby L., ten weeks old, who, on account of snuffles, was unable to nurse or sleep properly, was regarded as syphilitic, although there was no clear history of infection. Adenoids were found, removed, and all the trouble ceased.

CASE IV.—Baby B., aged nine weeks, referred by Dr. Bernstein, snored and had a dry cough which seemed to irritate the child so that it could not rest. The doctor had made a diagnosis of adenoids and, after a thorough examination, I concurred in his opinion. Operation resulted in a complete cure.

CASE V.—Baby A., whom I saw in August, 1898, when eight days old, had snuffles and was undoubtedly syphilitic, the father admitting that he had had it and had never been thoroughly treated on account of being a traveling salesman. The mother also had a marked specific eruption. A small curette passed in the nasopharynx showed the presence of adenoids. The child was not thoroughly curetted, as the father objected, but was put under specific treatment. I had the pleasure of seeing the child from time to time, and although he continued a mouth breather, he improved wonderfully. I saw the patient, when four years old, with Dr. Livingstone, the father consenting, and under an anæsthetic, the adenoids were thoroughly removed.

In making a *diagnosis* of adenoids in infants, we must naturally depend to a great extent upon inability to nurse properly and noisy mouth breathing. However, many other causes of noisy breathing should be excluded. These briefly mentioned are:

1. *Congenital*, as 1, diminution in size or occlusion of one or both nostrils; 2, highly arched palate or deformity of soft palate; 3, distortion of cervical vertebræ; and 4, atelectasis.

2. *Constitutional Diseases*. 1, Syphilis; 2, lymphatism; 3, tuberculosis; 4, lithæmia.

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* Read at the April meeting of the Society of the Alumni of the City (Charity) Hospital.

[1] Since reading the paper I notice that a case of congenital adenoid vegetation is reported *in extenso* by Louis Fischer in his new book on infant feeding, third edition, page 229.

3. *Other Conditions.* 1, Acute rhinitis; 2, retropharyngeal abscess; 3, disturbances of digestion; 4, paralysis of soft palate or pharynx; 5, diphtheria, especially nasal.

These have to be carefully considered, or else one is doomed to disappointment. These conditions may coexist with adenoids, but, when alone, they may cause symptoms similar to those occasioned by the presence of the hypertrophied tissue, and so an operation may not result in the promised cure. In infants, as the examining finger, on account of its size, is out of the question, and the rhinoscopic mirror cannot be employed, to be absolutely certain the curette must establish the diagnosis.

In operating upon the patients, the babies were held in the nurses' arms and, depressing the tongue, I curetted out the growths, wiping away the blood from time to time. The difficulty occurred in selecting an instrument when the first case appeared; I knew of none that would answer the purpose. Forceps, in infants, was out of the question, as the smallest was still too large; so I used a ring curette which, while not adapted to remove the growths at one sitting, yet accomplished the task.

To meet this difficulty, I had an instrument made (10), consisting of an oval curette, the cutting surface being 6½ by 5½ mm., with depth of 2 mm., set at an angle of 120° to the shaft, about 10 mm. above the bend. The shaft is slightly pliable and has a handle 20 cm. long. I employed no anæsthetic in operating, as the patients were easily held, and no difficulty was experienced. No after treatment was necessary in some of the cases; in others, it consisted in gently irrigating with a mild antiseptic solution. The results were perfect in each case, there has been no return of the growths. The physiognomic manifestation of adenoids so usually marked is absent, and the appearances are those of normal children.

In concluding, I wish to emphasize the fact that adenoids do exist in infants, and that an early operation saves the patient from the defects caused by ignoring their presence.

115 WEST ONE HUNDRED AND TWENTY-FIRST
STREET.

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Therapeutical Notes.

Infantile Syphilis.—Mercurial frictions, according to *Journal des praticiens*, for July 9, 1904, are well borne by children. The Neapolitan ointment of the Codex, made as follows, is indicated:

℞ Metallic mercury	500 parts;
Benzoinated lard	460 parts;
White wax	40 parts.

M. One to five drachms to be rubbed into the skin.

For an infant, the ointment should be rubbed in with a piece of flannel on a different part of the abdomen every morning. The ointment should be allowed to remain. After a month of such treatment, it should be suspended for a week and then recommenced, and this procedure should be kept up for a year.

Local lesions may be treated with:

℞ White precipitate	3 grammes (45 grains);
Petrolatum	30 grammes (1 ounce).

M. For local use.

After one year's persistent treatment potassium iodide should be given, 10 centigrammes daily for 3 weeks, ten days' intermission, then three more weeks of treatment. Every three months, inunction should be resumed for two weeks.

Prophylaxis is of the highest importance, and includes the careful choice of a wet nurse, the forbidding of kissing, and the use of cow vaccine exclusively, with aseptic instruments.

In hereditary syphilis, at the end of a year of inunction, half to one teaspoonful may be given daily of Gibert's syrup:

℞ Mercury biniodide	30 centigrammes (4½ grains);
Potassium iodide	30 grammes (1 ounce);
Distilled water	50 grammes (1⅔ ounce);
Syrup of cinchona	950 grammes (31⅔ ounces).

M. Do not filter.

At the end of the second year, 20 centigrammes or 3 grains of potassium iodide may be given daily.

The liquor of Van Swieten is sometimes substituted:

℞ Corrosive sublimate	1 part;
Pure water	900 parts;
Rectified spirits	100 parts.

M. Dissolve the sublimate in the alcohol, then add the water. Dose, ten drops daily for each month of age.

Mercurial injections are useless.

The prophylaxis of hereditary syphilis includes treatment of parents, of the syphilitic pregnant woman, discouragement of marriage between syphilitics, and the nursing of the affected child by its mother; never by a nurse.

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THE RETIREMENT OF DR. SHRADY.

In the last issue of the *Medical Record* it was announced that Dr. George F. Shrady had resigned the editorship of that journal. Dr. Shrady's exceptional intellectual powers have as yet, we believe, suffered no impairment, and the profession in general will perhaps be surprised at the announcement. He was so identified with the *Record,* having been its editor ever since its establishment, nearly forty years ago, that it may be hard for many of its readers to look upon it as quite the same journal that it had been up to the time of his retirement, such is the potency of a great name. If they entertain this feeling, it will be in no wise depreciatory of his able successor, Dr. Thomas L. Stedman, who for years had been his coadjutor on the paper, though his name had only of late appeared at the head of the editorial columns. Whenever a worthy periodical loses, from whatever cause, the man who for many years has shaped its editorial policy and passed upon its contents, there is inevitably a sort of shock felt, one that is not easily forgotten. In this instance, however, Dr. Stedman may be trusted to alleviate the shock so far as it is within anybody's power to do so.

Prior to the establishment of the *Medical Record* Dr. Shrady had considerable editorial experience on the *American Medical Times,* a New York weekly journal of which Dr. Stephen Smith was the editor in chief. This, together with his long service on the newer journal, made him of late years easily the " dean " of American medical editors, a title that was all the more freely bestowed on him by reason of his humor and geniality. For many years there has naturally been a rather keen rivalry between the *Medical Record* and this journal, but never any rancor; neither ever contained an editorial expression that could give pain to the editor of the other. There has always, indeed, been a feeling of friendship between Dr. Shrady and the editor of this journal, one that can perhaps in no other way be better set forth than by calling to mind the jocular contention that has arisen whenever they have met, which has been all too seldom, as to which of the two would live to write the other's obituary. We wish Dr. Shrady many more years of his useful life, and we feel sure that this is the sentiment of the profession at large.

THE TENEMENT HOUSE MORTALITY OF NEW YORK.

If anybody is disposed to underrate the tenement house problem in its bearing on the task of redeeming New York from a mortality rate far in excess of what might legitimately be expected of a city so salubriously situated, so well supplied with wholesome water, and so efficiently policed, we commend him to a recent statement by the energetic health commissioner of Chicago, Dr. Arthur R. Reynolds, to the effect that the one factor sufficient to account for the high death rate of New York is its huge tenement house population. It is with pardonable pride that Dr. Reynolds has repeatedly pointed out in the Chicago Health Department's weekly *Bulletin* the healthfulness of Chicago, particularly as compared with New York.

Without in any way belittling the efficiency of the Chicago Health Department, we may assume that the very decided decrease of the mortality rate of that city during the last ten years has been largely due to improved drainage, and especially, during the latter portion of that period, to the diversion of sewage from Lake Michigan, the source of the water supply, into the drainage canal that ultimately discharges its contents into the Mississippi River. Chicago has never had to contend with tenement house conditions at all approaching those of New York, and, now that the drainage of Chicago has undergone the improvement mentioned, the work of maintaining its present healthfulness ought to prove comparatively easy—quite within the power of so enlightened and earnest a health commissioner as Dr. Reynolds.

Our new Tenement House Commission has already accomplished tangible results in the amelioration of tenement house life in New York, and we look to see it achieve much more in the same direction, but such tenement houses as at present prevail in the metropolis must be eliminated before it can reach conditions as favorable to the preservation of life as are attainable in a great city or those that have been attained in Chicago. This result will eventually be reached, we have no doubt, but not until vastly greater facility of travel has been provided between the borough of Manhattan and the surrounding country. Then, so far as can at present be foreseen, there will be no good reason why New York should not be as salubrious as, for instance, Buffalo, where the humblest laborer may have his own little detached house.

THE PUDIC REFLEX.

The reflexes, normal and pathological, are constantly getting to be more generally known. One of the latest to be treated of at length, so far as we have observed, is a respiratory and cardiac reflex elicited by impressions on the pudic nerve. In his address on surgery at the recent meeting of the British Medical Association Sir William Macewen made it one of a number of diverse topics of discourse. It seems to have been first noticed so long ago as in 1870, in a patient so fully anæsthetized that there was complete muscular flaccidity, with abolition of the reflexes usually noted by anæsthetists. An operation for the removal of hæmorrhoids was to be performed, and at the moment when the sphincter ani was stretched the patient had an alarming spasm of the glottis. When the patient was more deeply anæsthetized—as profoundly, in fact, as was thought consistent with safety—this reflex, though modified in degree, could still be elicited, not only by stretching the anal sphincter, but also by painful impressions on the external genitals and to a lesser extent by those on the perinæum and the lower gluteal region. This persistence of the reflex during deep anæsthesia distinguished it from the ordinary reflexes.

Macewen implies that this pudic reflex may be elicited in the generality of persons. In many of them full anæsthesia modifies it decidedly, but in others it has no such effect. The respiratory centre is most responsive to impressions on the pudic nerve when there is a state of venosity of the blood, such as is produced by previous obstruction of the respiration, the response being instantaneous and taking the form of a prolonged tetanic inspiratory gasp, and sometimes a deep stridulous inspiratory effort, each time that the peripheral impression is repeated. There is a concomitant effect on the heart, through the vagus, though in the majority of instances it is so slight as not to be noticed. In some cases there is decided weakening of the pulse, and in a few the pulse becomes slow and irregular, with livid pallor of the face. When these cardiac manifestations are pronounced, they last longer than the respiratory effects and are more serious. This is most apt to be the case in neurotic persons.

All these reflex phenomena may be prevented or greatly lessened by preliminary local anæsthetization. Opium also has an excellent effect, whether used subcutaneously or in the form of a suppository. Some such means should obviously be taken to avoid respiratory and cardiac derangements that may prove dangerous, or at least may seriously distract the operator's attention.

LITHOGENOUS OBSTRUCTION OF THE DUCTUS CHOLEDOCHUS COMMUNIS.

The majority of individuals who have stones in the gall bladder are not made aware of their presence by direct clinical manifestations. This is not the case when the stones are using the common duct as their resting place on their journey to the duodenum. A stone, when once in the common duct, with rare exceptions, begins making mischief that is quickly noticeable by the patient and his physician; and this evidence, with short intervals of quiescence, will continue until the offending foreign body is got rid of by Nature or by the surgeon. Recognizing the great importance of prophylaxis, surgery should, especially in this locality, be timely and complete. I know of no clinical picture more perfect in its symptomatic details than that of a lithogenous, complete or partial, occlusion of the common duct. Most gallstones have their origin in the gall bladder. I desire to call attention to the treatment of their effects, etc., after they are once formed and while they are in the common duct. I am firmly of the opinion that when a stone has once invaded the common duct it never returns to the gall bladder. I do not wish to be understood as in any way depreciating the importance of surgical treatment of stones in the gall bladder when they are known to exist.

The classification of gallstones, acording to their location, has not been given the importance that their presence in special localities demands. From a clinical, pathological, and operative standpoint, this division of the discussion is essential. Many writers discuss the subject in a general way, and thus fail in a measure to call attention to or lay stress upon the most important phase of gallstone pathology. Complications engrafted upon the original pathology are often more serious than the cause of the complications.

I cannot fully agree with some of the noted authorities when they say that an inflammatory process is ever present and necessary to put a common duct stone in motion, and that the wedging of the stone in the duct is a result of this process. I see no reason why a stone that is too large to pass through the duct should not become lodged, as in any other location, for instance, a nephritic stone.

With the pressure of the liver in its effort to force the bile through its natural canal, I see no reason why the stone should not only be set in motion, but produce a complete occlusion and a most severe pain from nerve stretching and pressure. It is true the liver is an expansile organ, but there is a limit to this, and that limit is aided by Nature in her endeavors to prevent a foreign and poisonous fluid (bile) from entering the circulating blood in that organ. Two pints or over of bile forced into the blood through resisting capillaries within twenty-four hours must of necessity mean quite a firm pressure at the point of stone obstruction. I had rather accept the theory that the firm pressure of the stone on the delicate epithelium of the duct leads to a destruction of the same, and thus acts as a direct cause of local inflammatory changes and opens an avenue for constitutional sepsis at this point. The clinical symptoms, in their order of appearance, would in most of my cases support this theory. The patient has one attack of pain, then a chill (when there is a chill at all) followed by fever, and a day or two later there are evidences of resorption of bile and the deposit of the coloring matter in the skin (jaundice). The stone occludes the duct, bile pressure against it in turn produces nerve pressure (pain) and destroys the surface epithelium; absorption takes place and a rigor followed by fever is the result of this absorption.

The presence of a long imprisoned gallstone in the ductus choledochus communis undoubtedly is a factor in the production of cancer of the duct and adjacent structures. One author (Schroeder) maintains that fourteen per cent. of gallstone patients suffer from cancer; this percentage, I believe, is too high, but the frequency leads to the conclusion that their coexistence is more than a coincidence. Carcinoma is not so likely to develop here as in the gall bladder. A jaundice from a stone obstruction is usually less pronounced and persistent than that produced from a carcinoma. Disturbance from a stone producing icterus is more likely to have periods of quiescence than that from a growth; in fact, a malignant stenosis is usually progressive and permanent.

The pain varies from a mere transient uneasiness (rare) to the most intense and prostrating suffering lasting for hours or days. A stone too large to pass into the duodenum may give rise to the most terrific suffering, followed by a quiescent period for a number of months, only to give place to another attack. Now let this same stone remain in the duct for years or until it has increased materially in size, and the pain produced by its presence will in all probabilty be less severe than that caused by the smaller stone. The duct gradually becomes accustomed to its presence and dilates, nerve sensibility is in a measure obtunded and tired out; Nature accepts the situation, so to speak. The bile may find a groove or depression through which it may escape into the duodenum, and the patient live a fairly comfortable life for years.

Now let a severe infection take place about this stone, and the duct is again occluded, pain is renewed, jaundice reappears, and the clinical picture of a total stoppage of the common duct is presented again. This bile calculus does not change its positon during this process, the inflammatory symptoms subside, and the patient is left as before. The pain produced from a common duct stone is usually much nearer the median line than that produced by stones in the gall bladder. Absence of bile in the fæces (alcholia) is usual at some time in the history of these cases, and is a companion to jaundice.

The rigors produced by a lithogenous ductus choledochus obstruction resemble those of malaria in their periodicity, and are not so much governed by the amount of the local inflammatory process as by the location of the stone. A stone lodged near the entrance of the duct into the duodenum will cause more systemic septic disturbance than if located elsewhere in the biliary tract. The largest number of absorbents are located here, and the close proximity to the colon bacillus bearing intestine admits of more ready infection at the site of the stone.

The colon bacillus and other intestinal bacteria at this point, I believe, are less virulent than lower down in the canal; this is demonstrated by the comparative safety with which we may allow the infected bile to escape at the time of operating on the common duct. This weakening of bacterial powers in all probability is due to the action of the bile, either alone or in conjunction with the pancreatic and gastric juices.

One thing is certain—a larger amount of the bile-bearing bacteria can be spilt into the peritonæum with safety at this point than can be tolerated by the peritonæum from a similar leaking of an appendix or an intestine. I have not stitched a gall duct in any of my cases. I have seen half a pint of muddy looking, bile-stained fluid escape from the duct, at the time of the operation, staining the intestines, omentum, and peritonæum over a large area, in spite of my precautionary wall of gauze; and not in a single case has there been the least evidence of peritonitis. I have relied upon gauze drainage. Bacteriological examinations have revealed the colon bacillus in almost every case at the time of the operation.

Many cases with latent common duct stones are diagnosticated as gastric ulcer, gastralgia, or cancer of the pylorus. A careful analysis of the symptoms present and the weighing of the negative evidence will in most instances lead to a correct opinion. The injury to the pancreas from gallstones is often of such a character as to be slow in getting well after the cause has been removed. Interstitial pancreatitis of the duodenal end (head) of the pancreas and pancreatic stone formation and cancer are the most frequent changes induced in this organ.

A. H. Cordier.

THE DOSE OF SODIUM OLEATE.

In our issue for July 16th we spoke of Bauermeister's use of sodium oleate in cholelithiasis, and added: "The dose of the oleate was not mentioned." It was not stated in the abstract from which we derived our information, but we learn that in the original account Bauermeister said that he had pills prepared each containing a grain and a half of the oleate, with the same amount of salicylic acid.

MULTIPLE NEURITIS OF TELLURIC ORIGIN.

We all feel pretty sure that eating vegetables growing in or near the ground, and uncooked, may give rise to tetanus from their being contaminated with earth containing the germ of that disease. To judge from a case recently reported to the Paris Hospital Medical Society by Gilbert and Rose (*Presse médicale*, July 20th), multiple neuritis may occasionally be due to the same cause.

RADIUM AS AN ANALGETIC.

Testimony as to the occasional analgetic action of the radium emanations continues to appear. At a recent meeting of the Paris Academy of Medicine (*Journal des praticiens*, July 30th), M. Raymond spoke of its efficacy in the pains of tabes, exposure to the tube lasting for four minutes.

News Items.

Society Meetings for the Coming Week:

MONDAY, *August 15th.*—Chicago Medical Society.

TUESDAY, *August 16th.*—Buffalo Academy of Medicine (Section in Pathology); Ogdensburgh, N. Y., Medical Association; Syracuse, N. Y.. Academy of Medicine; Medical Society of the County of Kings, N. Y.; Baltimore Academy of Medicine.

WEDNESDAY, *August 17th.*—New Jersey Academy of Medicine (Newark); New York Society of Dermatology and Genitourinary Surgery (private).

THURSDAY, *August 18th.*—New Bedford, Mass., Society for Medical Improvement (private); Atlanta Society of Medicine.

FRIDAY, *August 19th.*—Clinical Society of the New York Postgraduate Medical School and Hospital; Manhattan Medical and Surgical Society (private).

NEW YORK.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending August 6, 1904:

	Week end'g July 30.		Week end'g Aug. 6.	
	CASES.	DEATHS.	CASES.	DEATHS.
Measles	183	8	133	6
Diphtheria and croup	202	24	232	33
Scarlet fever	88	8	68	2
Smallpox	1	..	3	..
Chickenpox	11	..	11	..
Tuberculosis	341	170	366	146
Typhoid fever	83	13	67	13
Cerebrospinal meningitis	..	25	...	..
Totals	909	248	880	200

Change of Telephone Number.—Dr. Frederick Holme Wiggin to 361, 38th Street.

Change of Address.—Dr. Margaret A. Cleaves, to The Sydenham, 616 Madison Avenue, New York.

Civil Service Examinations for the New York State and County Service.—The State Civil Service Commission announces general examinations to be held September 10, 1904, including the following positions: Apothecary in State hospitals and institutions; physicians in State hospitals and institutions of both regular and homœopathic schools; trained nurse in State hospitals and institutions. Applications for these examinations must be made on or before September 3rd. Full particulars of the examinations and application blanks may be obtained by addressing the Chief Examiner of the Commission at Albany.

Board of Alienists for the Inspection of Immigrants at This Port.—The State Commission in Lunacy; under the authority granted by Chapter 326 of the Laws of 1904, creating a board of alienists for the inspection of immigrants landing at the port of New York, announces the following appointments: As chief examiner, Dr. Sidney D. Wilgus, of Brooklyn; as assistant examiners, Dr. W. E. Sylvester, of College Point. and Dr. George B. Campbell, of Manhattan. The salary of the chief examiner is $5 000 per annum; that of the assistants $3,000 per annum. The board is to act in concert with the United States examiners in the inspection of all immigrants suspected of insanity, epilepsy, or imbecility. New York State is the chief sufferer from the annual influx of these classes of defectives.

An Emergency Hospital has been erected at Clausen's Point, and has been in operation since July 24th. It is under the pecuniary auspices of Clinton Stephens. Dr. Bassin in charge. Thus far twenty-three very interesting cases, six of which will be presented to the profession as soon as possible, have been received.

A Proposed Five Year Course in Medicine.—It is announced that the New York University has added a fifth year to the course of instruction in the medical department. The arrangement is to go into effect at the session of 1905-1906. For the present the fifth year of instruction is to be elective, but it is intimated that it may soon be made obligatory.

The Cancer Homes for Destitute Incurables are in great need of money to carry on their work. One hundred and fifty tons of coal would be gladly welcomed and, in fact, gifts of any kind could be utilized by the homes and their nonsalaried nurses. Donations may be sent to Alphonsa Lathrop, 426 Cherry Street. The country home at Hawthorne, Westchester County, is having a hard struggle for existence.

The National Association for the Study and Prevention of Tuberculosis, which was organized at Atlantic City on June 6th, began active work on August 1st. An office was secured in the Associated Charities building at Twenty-second Street and Fourth Avenue, and Mrs. Florence F. Colby was elected assistant secretary to start the work. An executive secretary will be elected in September. The association promoters are starting out with the idea that at least $50,000 can be raised yearly to carry on its crusade, which is to be mainly one of education. There is no idea of founding any sanitarium, hospital, or dispensary for the treatment of the disease. It is not likely that a laboratory even will be instituted at first, although that may be done later. The work planned for the first year at least is the collection and dissemination of information of every sort touching the disease. Statistics will be collected and pressed on the attention of municipal bodies and institutions in order to get them to make scientific warfare against the spread of the infection. The primary purpose is to make the association headquarters a clearing house for tuberculosis lore. The formation of local associations and committees will also be urged and assisted in every possible way. It is probable that a special journal devoted to tuberculosis will be published; but this point is not quite decided. One of the first definite enterprises will be the publication of a tuberculosis directory. This will be done in cooperation with the Charity Organization Society, whose tuberculosis statistician, Miss Lillian Brandt, has already in hand a great deal of the necessary information, including particulars of 125 hospitals and sanitaria in this country and Canada specially equipped for the treatment of tuberculosis.

Sir Felix Semon, D. V. O., Physician Extraordinary to the King of England, who is to deliver the address on laryngology at the St. Louis Congress of Arts and Sciences, will arrive in New York early in September. He will be the guest while in New York of his life-long friend, Professor George M. Lefferts, and also of Dr. Emil Mayer, who is associated with Dr. Lefferts as coeditor of the *Internationales Zentralblatt für Laryngologie,* of which Sir Felix has been editor in chief since its beginning twenty years ago.

The American tour, which has been arranged by Dr. Mayer, will consist of a visit to Niagara Falls and thence to Chicago, where Professor E. Fletcher Ingals and the western laryngologists will entertain both Sir Felix and Lady Semon, who accompanies him. At St. Louis he will deliver the address for which he was specially invited. During his stay there Dr. M. A. Goldstein, editor of *The Laryngoscope,* will be his chief entertainer, assisted by fellow laryngologists.

Sir Felix and Lady Semon then travel to Washington, where Dr. J. H. Bryan will see to their comfort. Philadelphia is the next stop, where Lady Semon has relatives.

From Montreal, where the travelers will be the guests of Dr. and Mrs. H. S. Birkett, Sir Felix will take a four weeks' hunting trip, as the guest of Sir Thomas Shaughnessy and the Canadian Pacific Railway, returning to New York city on August 31st to remain a week before sailing for home. This last week will be a busy one for him, as the programme consists of a dinner under the auspices of the laryngological section of the New York Academy of Medicine, an address on malignant diseases of the larynx at Hoosack Hall by invitation of the same section, and functions on different evenings conducted by Dr. Lefferts, Dr. Emil Mayer, and Dr. Thomas R. French, of Brooklyn.

The National Association for the Study and Prevention of Tuberculosis, in cooperation with the Committee on the Prevention of Tuberculosis of the charity organization society of New York city, is preparing a directory of the various agencies existing and projected, in the United States and Canada, which care for persons suffering from any form of tuberculosis or which work in any way for the restriction of the disease.

This directory will include information in regard to hospitals, sanatoria, dispensaries, and camps especially designed for tuberculous patients or with especial provision for them, whether public or private; insane hospitals and prisons in which special provision is made for the tuberculous inmates; State commissions and private societies formed for the purpose of investigation or of diffusing information; and a summary of the efforts being made by the boards of health in the principal cities.

A tentative list of institutions is given below. It is desired to make this directory as complete and as accurate as possible. Any additional addresses, therefore, or any reasons why institutions that are included should be omitted, will be welcomed. Information about any institution will be considered confidential, if so desired. Communications should be addressed to the Committee on the Prevention of Tuberculosis, 105 East Twenty-second Street, New York city.

HOSPITALS AND SANATORIA.

Arizona.—Mercy Hospital, Phœnix; St. Mary's Sanatorium, Tucson.

California.—Esperanza, Altadena; Health Camp, Indio; the Barlow Sanatorium, Los Angeles; the Pottenger Sanatorium for Diseases of the Lungs and Throat, Monrovia.

Colorado.—Glockner Sanatorium, Colorado Springs; Nordrach Ranch, Colorado Springs; Agnes Memorial Sanatorium, Denver; the Association Health Farm, Denver; the Home, Denver; the National Jewish Hospital for Consumptives, Denver; Resthaven, Morrison.

Connecticut.—Dr. Brooks's Sanatorium, New Canaan; Gaylord Farm Sanatorium, Wallingford.

Illinois.—St. Ann's Sanitarium, Chicago; Cook County Hospital for Consumptives, Dunning.

Indiana.—St. Rochus Hospital, Fort Wayne; Flower Mission Pavilion for Incurables, Indianapolis.

Iowa.—Boulder Lodge Sanatorium, Fort Dodge.

Louisiana.—Ozonia Rest Cure, Covington.

Maine.—Oxford Sanatorium, Hebron.

Maryland.—City Hospital for Consumptives, Baltimore; the Hospital for Consumptives of Maryland, Towson.

Massachusetts.—Boston Almshouse and Hospital, Long Island, Boston; Channing Home, Boston; Free Home for Consumptives, Boston; the House of the Good Samaritan, Boston; the Holy Ghost Hospital for Incurables, Cambridge; the Millet Sanatorium, East Bridgewater; the Cullis Consumptives' Home, Grove Hall, Boston Highlands; Massachusetts State Sanatorium, Rutland; Rutland Cottages, Rutland; the Sharon Sanatorium, Sharon; State Hospital, Tewkesbury.

Michigan.—The Wayne County Hospital, Eloise.

Minnesota.—Luther Hospital Sanatorium, St. Paul; State Sanatorium for Consumptives, Walker, Cass County.

Missouri.—Emergency City Hospital, No. 2, St. Louis; Mount St. Rose Sanatorium, St Louis.

Nebraska.—Green Gables, Lincoln.

New Hampshire.—Pembroke Sanatorium for Tuberculosis, Suncook.

New Jersey.—State Sanatorium for Tuberculous Diseases, Glen Gardner, Hunterdon County; Memorial Hospital, Orange.

New Mexico.—St. Joseph Sanitarium, Albuquerque; United States General Hospital, Bayard; Public Health and Marine Hospital Service Sanatorium, Capitan, Lincoln County; St. Anthony's Sanitarium, East Las Vegas; St. Vincent Sanitarium, Santa Fé; St. Joseph's Sanatorium, Silver City.

New York.—Montefiore Country Sanitarium, Bedford Station, Westchester County; Erie County Hospital for Consumptives, Buffalo; Stony Wold Sanatorium, Lake Kushaqua, Franklin County; the Edgemont, Liberty Sullivan County; Loomis Sanatorium, Liberty, Sullivan County; Brooklyn Home for Consumptives, New York; Kings County Hospital, New York; the Home for Incurables, New York; House of Rest for Consumptives, New York; Lincoln Hospital, New York; Montefiore Home for Chronic Invalids, New York; Riverside Sanatorium for Pulmonary Diseases, New York; St. Joseph's Hospital for Consumptives, New York; Seaside Camp for Tuberculous Chlidren, Coney Island; Seton Hospital, New York city; Tuberculosis Infirmary of the Metropolitan Hospital, New York city; Sanitarium Gabriels, Paul Smith's; State Hospital for the Treatment of Incipient Pulmonary Tuberculosis, Ray Brook, Essex County; Hill Crest and Uplands, Santa Clarum; Adirondack Cottage Sanitarium, Saranac Lake; Raymond Cottage, Saranac Lake; Reception Cottage, Saranac Lake; the Rumanapp Cottage, Saranac Lake; All Saints' Home, Priory Farms, Verbank, Dutchess County; County Hospital, Yonkers.

North Carolina.—Dr. Stevens's Home, Asheville; the Winyah Sanitarium, Asheville; Franklin Humanitarian Home, Black Mountain; Pineshire Sanitarium for Diseases of the Lungs and Throat, Southern Pines; Southern Pines Sanitarium, Southern Pines.

Ohio.—The Branch Hospital for Consumptives, Cincinnati; Tuberculosis Sanatorium of the City Hospital, Cleveland; the Miami Valley Hospital, Dayton.

Pennsylvania.—Switch Back Sanatorium, Lansford; Southern Mountain Camp Sanatorium, Mont Alto, Franklin County; Bide Awhile Sanatorium, Perkiomenville; the Henry Phipps Institute, Philadelphia; Hospital for Diseases of the Lungs, Chestnut Hill, Montgomery County;

the House of Mercy; Philadelphia; Lucien Moss Home, Jewish Hospital, Philadelphia; Philadelphia Hospital, Philadelphia; Rush Hospital, Philadelphia; Lakewood Sanatorium, Scranton; West Mountain Sanatorium, Scranton; Free Hospital for Poor Consumptives, White Haven; Sunny Rest Sanatorium, White Haven.

Rhode Island.—State Sanatorium, Burrillville; Pine Ridge Camp for Consumptives, Foster; St. Joseph's Hospital, Providence.

South Carolina.—The Aiken Cottages, Aiken.

Texas.—Camp Reliance, Comfort, Kendall County; Sisters' Hospital, El Paso.

Vermont.—The Champlain Open Air Sanitarium, South Hero.

Washington.—King County Hospital, Seattle.

Wisconsin.—Wisconsin Dells Sanatorium, Kilbourn; Evergreen Park Cottage Sanatorium, Lake Nebagamon; the Wisconsin Health Park Association, Tomahawk, Lincoln County.

Canada.—Provincial Sanatorium, Kamloops, B. C.; Provincial Sanatorium, Kentville, Nova Scotia; Free Hospital for Consumptives, Gravenhurst, Ontario; Muskoka Cottage Sanatorium, Gravenhurst, Ontario; Lahl Ghur, Ste. Agathe des Monts, Quebec.

SPECIAL CLINICS FOR THE TREATMENT OF TUBERCULOSIS.

Baltimore, Md., Out Patient Department, Johns Hopkins Hospital.

Boston, Mass., Boston Dispensary.

Chicago, Ill., Dispensaries of the Committee on the Prevention of Tuberculosis of the Visiting Nurse Association.

Minneapolis, Minn., Medical Department of Hamline University; University of Minnesota.

New Haven, Conn., New Haven Dispensary.

New York, N. Y., Clinic of the Department of Health for the Treatment of Pulmonary Diseases; Bellevue Hospital, Out Patient Department; Gouverneur Hospital Dispensary; Postgraduate Hospital Dispensary; Vanderbilt Clinic; Presbyerian Hospital Dispensary; Harlem Hospital Dispensary.

Orange, N. J., Orange Memorial Hospital.

Philadelphia, Pa., Henry Phipps Institute; Rush Hospital.

Providence, R. I., Rhode Island Hospital.

Scranton, Pa., Free Dispensary for Diseases of the Lungs.

Worcester, Mass., City Hospital.

INSANE HOSPITALS, WITH SPECIAL PROVISION FOR THE TUBERCULOUS PATIENTS.

Delaware.—State Hospital for the Insane, Farnhurst.

Mississippi.—Hospital for Tuberculous Insane, Jackson.

New York.—State Hospital, Binghamton; Manhattan State Hospital East, Ward's Island; Willard State Hospital, Willard, Seneca County.

Rhode Island.—State Hospital, Howard.

Vermont.—Vermont State Hospital, Waterbury.

SPECIAL PROVISION FOR TUBERCULOUS PRISONERS.

Prison Hospital, Frankfort, Ky.; State Prison, Stillwater, Minn.; Clinton Prison, Dannemora N. Y.; State Penitentiary, Columbia, S. C.; Wynne Farm, Huntsville, Texas.

PHILADELPHIA.

Philadelphia Health Report.—*The Report on Contagious Diseases, compared with that of the previous week, is as follows:*

	Week end'g July 30.		Week end'g Aug. 6.	
	CASES.	DEATHS.	CASES.	DEATHS.
Smallpox	..	..	..	..
Diphtheria	31	2	44	5
Scarlet fever	48	..	51	3
Typhoid fever	62	9	84	5
Consumption	..	51	..	54
Cerebrospinal fever	..	..	..	..
Totals	141	62	179	67

Personal.—Dr. Judson Daland has left for the West Indies, where he expects to spend the remainder of the vacation period studying the diseases peculiar to that region.

The Weather.—On Tuesday, August 1st, with a maximum temperature of 87° and humidity varying between 91 and 82, two persons are recorded to have died from and five to have been overcome by the heat. In the afternoon a heavy rain storm was followed by more comfortable conditions.

Deaths.—Dr. Richardson B. Okie, of Berwyn, Pa., died on July 30th. Dr. Okie graduated from the medical department of the University of Pennsylvania in 1870. He was one of the visiting physicians to the Eliza J. Cathcart Home for Incurables, which is under the management of the Presbyterian Hospital, at Devon, Pa.

Dr. Ralph Lee Cooper, of Ogontz, Pa., died on August 2nd. Dr. Cooper was 77 years of age, and had been in active practice for forty years.

The Disposal of Household Waste.—It is proposed to adopt the plan in Philadelphia next year of collecting waste paper separate from ashes. In the past both ashes and waste paper have been collected at the same time and in the same wagons, at the expense of dirty streets. The method of collecting waste paper separate from ashes has been worked out in other large cities, so that it is no longer in the experimental stage, but, on the contrary, has been proved to be of distinct hygienic advantage.

The Pure Food Movement.—The effort being made by the State and city authorities to force the abandonment by unscrupulous persons of the sale of skimmed, diluted, and adulterated milk and of the use of artificial preservatives for meat continues. On August 2nd, nine persons were held for court by one of the magistrates, on evidence secured by the State food commissioner. Much opposition has been developed among those who profit by the sale of impure and adulterated food materials, but the public generally approves of activities that ought ultimately to result in a pure food supply for all. It is a truism that a pure milk supply is essential to the welfare of any large community, second only to a pure water supply.

The Smallpox Situation.—Smallpox is practically non-existent in the city of Philadelphia. No new cases have been reported for three weeks, and of the cases that have been under treatment at the Municipal Hospital, nearly all have been discharged. The medical inspector and his assistants have for several weeks been making a house to house canvass for the purpose of vaccinating such of the inhabitants as require to undergo that protective operation. Naturally some opposition has been developed among the ignorant and among that more dangerous class, the otherwise intelligent people who have convinced themselves by investigating (?) the conditions that vaccination causes a foul disorder. The board of health, however, we believe will not be seriously inconvenienced by this opposition in its efforts to start the winter with no smallpox cases within the city limits and a population thoroughly protected from the disease by vaccination.

Castration Penalty for Rape.—It is reported that the Bucks County Medical Society have endorsed a bill which will be introduced at the next session of the Pennsylvania legislature providing that criminals convicted of rape be castrated.

GENERAL

Statement of Mortality in Chicago, Ill., for the Week Ending August 6, 1904, compared with the preceding week and with the corresponding week of 1903. Death rates computed on United States Census Bureau's estimated midyear populations of 1,932,315 for 1904 and of 1,873,880 for 1903:

	Aug. 6, 1904.	July 30, 1904.	Aug. 8. 1903.
Total deaths, all causes	473	450	514
Annual death rate per 1,000	12.78	12.17	14.29
By sexes—			
Males	286	256	294
Females	187	194	220
By ages—			
Under 1 year	131	128	161
Between 1 and 5 years	42	36	51
Over 60 years	71	85	70
Important causes of death—			
Acute intestinal diseases	120	97	136
Apoplexy	4	14	12
Bright's disease	33	31	31
Bronchitis	6	1	11
Consumption	58	37	51
Cancer	16	18	22
Convulsions	11	6	8
Diphtheria	2	4	8
Heart diseases	34	34	28
Measles	0	1	2
Nervous diseases	23	17	28
Pneumonia	27	31	29
Scarlet fever	3	2	1
Suicide	5	9	6
Sunstroke	0	2	1
Typhoid fever	7	9	11
Violence (other than suicide)	39	36	33
Whooping cough	6	5	5
All other causes	79	96	91

The American Therapeutic Society is the name of a society incorporated at Washington, D. C., last week by Oliver Thomas Osborne, Reynold Webb Wilcox, Noble P. Barnes, John Speed McLain, Francis P. Morgan, Robert Reyburn, William Mercer Sprigg, and D. Olin Leech. The stated object of the society is the study and advancement of the science of therapeutics in its relation to medicine and surgery, etc.

Enforcement of the Law Against Weeds in St. Louis.—The health commissioner of St. Louis is taking active steps to compel property owners of the city to cut the weeds on their lots. Failure to do this has resulted in about 150 property owners being summoned to appear before various police courts. The cases will be prosecuted for the city. Under a law upheld by the Supreme Court last winter, permitting weeds to grow on vacant lots is punishable by a fine of from $10 to $50.

Dearborn Medical College, Chicago, granted diplomas to the following on July 1st:

Manuel Alvarez, Edward K. Armstrong, William G. Beek, Robert D. Barclay, William H. Damon, Peter T. Diamond, Philip A. Graves, Edward D. Gotchy, Gustave E. Henschen, Antonio C. Jacobs, Grace R. Marvin, Samuel Metcoff, Harriet D. Mitchell, George E. Peterman, Charles B. Potter, Joseph C. Sayre, Edward G, Sepple, Lupu Schrager.

At the same time six nurses graduated from the Samaritan Hospital. They are:

Margaret Conway Oldfield, of Sydney, Australia; Myrtle Edith Gardinier, Kenosha, Wis.; Emma Frost Sheller, of Whittemore, Ia.; Agnes Baker Schimitz, of Riverside, Ia.; Evelyn Bertha Schulte, of Chicago; Florence Belle Helmick, of Ottawa, Ill.

Warren County, Ky., Medical Society.—The meeting of the Warren County Medical Society, July 9th, was most interesting in the number and character of papers read. The old officers were unanimously reelected, Dr. H. P. Cartwright, president, and Dr. John H. Blackburn, secretary and treasurer.

At the Semiannual Meeting of the South Dakota Board of Medical Examiners, held at Watertown, July 13th, 14th, and 15th, twenty-seven applicants took the examination, which was written. Of these, eighteen passed the examination successfully, and were licensed to practise, seven failed in the examination, and two, who passed the examination successfully, were not licensed pending investigations. Dr. J. L. Foxton, of Huron, and Dr. H. S. Graves, of Hurley, were recently reappointed by the governor to succeed themselves as members of the board for three years. A resolution favoring reciprocity in examination with other boards was passed. A rule defining minimum qualifications of graduates from colleges to be recognized by this board was also passed. The officers were reelected, and the next regular meeting is to be at Aberdeen, January 11 and 12, 1905.

Liberal Bequests to Syracuse Hospitals.—The late John Lyman, of Syracuse, made, among many bequests, the following: Syracuse University becomes a beneficiary for over $212,000; Grace Homœopathic Hospital, Toronto, $45,728; Home for Incurables, Sick Children's Hospital, Toronto, $1,000 each; Protestant Orphan's Home, Girls' Home, Aged Women's Home, Infants' Home, Boys' Home, Women's Christian Association, Newsboys' Home, House of Providence, Toronto, $2,000 each. Other large bequests are as follows: Onondaga County Orphan Asylum, $5,000; Hospital of the Good Shepherd, $78.-015.19; Hospital for Women and Children, $58,-015.19; St. Joseph's Hospital, $5,000; Y. M. C. A., $5,000; Visiting Nurse Association, $5,000; Shelter for Young Girls, $5,000.

Rockefeller Institute of Medical Research.—The laboratories for this institute, it is said, will cost $325,000. Plans have been filed. The main structure of five stories will front 136 feet on Exterior Street, east of Avenue A, Baltimore. It will be 60 feet deep. The façade of brick and limestone will be decorated with pilasters of brick. The porch entrance will be flanked with decorative columns supporting electric lights. An assembly hall, with library, study, and directors' room, will occupy the first floor. General and special laboratories, with research rooms, will take up the second, third, and fourth floors. Living quarters and a dining hall will be on the fifth floor. On the roof will be a special operating room and quarters for animals under examination. For the animals which will be waiting for experiments by the doctors a separate two story building will be erected next to the main structure. The plans include a power house. The president of the institute is William H. Walsh, of Johns Hopkins University.

Women Practising Medicine in the United States.—At the conference arranged by the Chicago Woman's Club on Women in Industrialism, Dr. Lucy Waite, of Chicago, reported 4,376 women listed in the medical societies. New York had the largest number. Illinois came next with 239; of these, 51 were giving instruction in medical colleges in Chicago. An investigation as to the fees of 76 women physicians, graduates from a certain college, disclosed that ten received annual incomes from $3,000 to $4,000; five received from $4,000 to $5,000; three from $5,000 to $10,000; and fifteen from $15,000 to $20,000.

Bequests to Boston Charities of Mrs. Henry Whitman.—Public bequests amounting to more than $200,000 are contained in the will of Mrs. Henry Whitman, the artist, who resided at 77 Mt. Vernon Street, Boston, and whose death occurred recently. The will was filed in the probate court for Suffolk county, and after several private bequests provides for the following gifts to charitable institutions: Children's Hospital of Boston, to endow two beds, one for a boy and one for a girl, to be known as the "Lily Beds," $10,000; Home for Incurables, Boston, $5,000; Massachusetts Infant Asylum, $5,000; society in behalf of Crippled and Deformed Children, $20,000; Berea College, Kentucky, $2,000.

The Following Physicians Were Licensed at the June (1904) Examination to Practise in Minnesota:

C. U. Abbott, of Bena; A. G. Anderson, of Minneapolis; J. A. Ballard, of St. Paul; W. K. Bartlett, of Minneapolis; T. J. Benson, of Minneapolis; Tobias Birnberg, of St. Paul; Charles Blais, of Minneapolis; W. A. Brand, of Minneapolis; S. D. Coffin, of Lyndale; C. V. Cole, of Fergus Falls; L. J. Coria, of Minneapolis; G. D. Crossette, of Minneapolis; E. B. Daugherty, of Chicago City; L. E. Daugherty, of St. Paul; J. L. Devine, of St. Paul; G. C. Dittman, of St. Paul; G. E. Dix, of Minneapolis; J. H. Drake, of Minneapolis; J. T. Dunn, of Waseca; W. S. Emmerson, of Minneapolis; H. M. Freeburg, of Minneaoplis; C. D. Freeman, of St. Paul; W. S. Frost, of St. Paul; P. J. Gallagher, of St. Paul; G. D. Gallup, of Minneapolis; C. E. Gates, of Rochester; C. W. Giesen. of Calmar, Iowa; H. J. Gowenlock, of Minneapolis; H. B. Grimes, of Rochester; A. N. Gunz, of Centre City; S. B. Haessly, of Herbert, Wis.; I. W. Higgins, of Hutchison; G. C. Hoff, of Zumbrota; W. F. Hoffman, of Minneapolis; A. D. Hoidale. of Dawson; J. E. Hynes, of Winnebago City; J. H. Jern, of Superior, Wis.; Hans Johnson, of Wilmar; E. A. Johnston, of Sigourney, Iowa; G. T. Joyce, of Rochester; P. F. Kearney, of Minneapolis; T. C. Kelly, of Garden City; L. H. Kermott, of Minneapolis; M. J. Kern, of Wadena; M. A. Kiefer, of Sleepy Eye; C. A. Klemer. of St. Paul; J. R. Kuth, of Minneapolis; C. L. Larsen, of St. Paul; T. M. MacLachlan, of McHenry, N. D.; H. E. McKibben, of Webster, S. D.; J. A. Mattson, of Dassel; A. J. Movius, of Lidgerwood, N. D.; Margaret L. Nickerson, of Minneapolis; A. E. Ofstad, of Minneapolis; J. E. E. Olander, of Minneapolis; G. M. Olson, of Minneapolis; C. G. Parnall, of Ann Arbor, Mich.; A. J. Paulson, of Minneapolis; Valdemar Pleth, of Chicago, Ill.; J. W. Preisinger, of New Ulm; G. B. Ribble, of St. Paul; W. G. Richards, of Minneapolis; R. P. Robbins, of Sauk Center; Samuel Rosen, of Minneapolis; E. M. Schelde. of Minneapolis; A. G. Schulze, of St. Paul; Ivar Sivertsen, of St. Paul; H. O. Skinner, of St. Paul; George Steven, of Rochester; G. A. Stevenson, of Minneapolis; R. L. Tebbitt, of Minneapolis; G. E. Thomas, of St. Paul; A. M. Thomson, of Minneapolis; W. S. Titus, of Mora; C. J. Wallace of Minneapolis; A. M. Webster, of Minneapolis; F. L. Wheeler, of Minneapolis; C. W. Wilkowske, of Arlington; S. E. Williams of Minneapolis; H. S. Willson, of Minneapolis.

Sanitary Inspectors for New Jersey.—The State Board of Health of New Jersey has appointed the following sanitary inspectors, after competitive examination: Alexander Marcy, Jr., of Riverton; Hiram Williams, of Passaic; William S. Green, of Paterson; Walter Taylor, of Jersey City; P. H. Osert, of Asbury Park; Howard L. Baumgartner, of Asbury Park; Frederick W. Hering, of Jersey City; and Charles Cunningham, of Hammonton. There are three classes of sanitary inspectors in New Jersey, local sanitary inspectors, sanitary inspectors of the first class, and sanitary inspectors of the second class

The Louisville National Medical College, the foremost school of medicine in Kentucky for negroes, has just completed additions to its hospital at First and Green Streets. The building adjoining the college has been purchased and fitted out completely with modern surgical and clinical apparatus, so that it is well adapted for the purpose of caring for the sick, as well as a demonstration room for the instruction of the students. It has compartments and wards capable of accommodating thirty-five people, and will be conducted as a free dispensary. It has been styled the Citizens' Hospital. Other departments of the school have been undergoing repairs and remodelling. A new dormitory has been fitted up for men, and new laboratories of various kinds installed. All have not yet been completed, but it is the intention to have the work finished in time for the fall session which opens in October.

The Rocky Mountain Interstate Medical Association will meet at the Brown Palace Hotel, Denver, Colo., September 6 and 7, 1904. All papers will be limited to twenty minutes and discussions to five. Titles reaching the secretary later than August 15th will not appear upon the programme. The following have been received and are hereby recognized:

Dr. W. W. Grant. of Denver, Complications and Sequelæ of Appendicitis; Dr. S. C. Baldwin, of Salt Lake, Hip Joint Disease; Dr. John C. Munro, of Boston, Report of Cases of Operation Upon the Lung; Dr. D. S. Fairchild, of Des Moines, Pregnancy Complicated by Tumors of the Uterus; Dr. Charles H. Mayo, of Rochester, Minn., Peritoneal Tuberculosis; Dr. James Arneill, of Denver, "Hyperchlorhydria." a Common Expression of Neurasthenia and Allied Conditions; Dr. J. N. Hall. of Denver, A Report of Eight Cases of Pernicious Anæmia; Dr. A. C. Ewing. of Salt Lake, Typhoid Fever; Dr. George H. Stover, of Denver, X Ray Treatment of Urethral Caruncle; Dr. A. A. Kerr, of Salt Lake, Ectopic Pregnancy; Dr. George Stemen, of Denver, Shock; Dr. Edward Hill, of Denver. The Chemistry of Drug Action; Dr. C. K. Fleming. of Denver, and Dr. Frank Adams, of Sacramento, titles not registered.

One and one fifth fare for the round trip in Colorado has been obtained and proportionate concessions for outside States are expected. A banquet will be held on the evening of the first day. Tickets will be $2.00. All desiring to attend are requested to notify the secretary on or before Monday, September 5th, in order that reservations may be made. Address all communications and titles to George A. Moleen, M. D., Mack Block, Denver, Colo., corresponding secretary.

N. B.—Corrections should be made before August 15, 1904.

Pith of Current Literature.

ZENTRALBLATT FUER INNERE MEDIZIN.

June 25, 1904.

1. Clinical Osmology, By H. Zikel.

1. **Clinical Osmology.**—Zikel says that the modern science of osmology is of the greatest value and importance to clinical medicine. The basis for the clinical use of cryoscopy rests upon the laws of osmotic equilibrium in the body. The osmotic average of the normal human being, determined by the freezing point of the blood, is — 0.56° C. The parenchyma of the kidney exercises the greatest influence upon the molecular concentration of the blood, the liver is next, and the lungs next; consequently when these organs are diseased, serious osmotic disturbances appear.

The cryoscopic test of the urine is made on the morning specimen after a suitable preparatory diet the night before. The function of the kidney as to molecular concentration is determined by the administration of salt, while its power of dilution is estimated by giving water. In parenchymatous nephritis both functions are diminished in contrast to the almost normal findings in cases of interstitial nephritis.

July 2, 1904.

1. Agglutination of Acid Fast Bacilli, By F. Rosenberger.

1. **Acid Fast Bacilli.**—Rosenberger admits that we account for the varying manifestations of tuberculosis by the two factors of varying individual susceptibility and the differences in the tubercle bacilli in different cases. Tubercle bacilli always have these two things in common—the tendency to form tubercle tissue with cheesy degeneration, and the fact that they are acid fast. The body reacts to the tubercle bacilli by the formation of various protective substances, the formation of an agglutinine among other things. The author has examined 198 persons with an agar culture of homogeneous, acid fast tubercle bacilli. When agglutination took place in newborn infants, it was always found in the maternal serum, but the reverse was not always true. The fact that agglutination also occurred in nontuberculous persons, shows that diagnostically it has no value. Animal experiments showed that agglutinines were transmitted from parents to offspring, as is the case with typhoid as well. These data have an important bearing on the disposition to and immunity from infectious diseases.

ZENTRALBLATT FUER CHIRURGIE

June 18, 1904.

1. Use of the Elastic Ligature in Changing Dressings in Joint Cases, By L. Isnardi.
2. Simple Method of Raising the Sunken Ala Nasi, By S. Kofmann.

1. **The Elastic Ligature.**—Isnardi recommends the temporary use of the elastic ligature in the dressing of joint cases to avoid hæmorrhages which may weaken the patient and interfere with the healing of the wound. After from five to ten changes of dressing by this method, the granulations have become so firm, that practically no bleeding takes place at subsequent dressings. For the dressings of burns and in cases of sequestrotomy, the method is also useful.

PRESSE MEDICALE.

June 8, 1904.

1. Syphilitic Pott's Disease, By Froelich.
2. The Diastatic Action and Primary Energy of Living Matter, By Martinet.

1. **Syphilitic Pott's Disease.**—Froelich details two cases, the first in a man aged thirty-five years who had a chancre in 1892, orchoepidymitis in 1895, tertiary symptoms in 1898 which persisted till 1902. In 1900 he suffered from pain in the back of the neck and intense dysphagia. The spine became quite rigid, a pharyngeal abscess developed, and trismus supervened. Considerable pus and some bony fragments were expectorated for some weeks when the abscess healed. The spinal rigidity has persisted despite vigorous specific treatment. although the patient's general health is good. The second case was in a girl aged sixteen years. When three years old, she had what was called a meningitis. In 1903 she had cervical pain and stiffness, increased by attempted movement. Specific treatment relieved the pain, but not the stiffness. Froelich recommends immobilization of the head by a harness in these cases and counsels patience in carrying out specific medication.

June 11, 1904.

1. Prophylaxis and Treatment of Deafness, By De Lavarenne.
2. Renal Decapsulation, By De Rouville.
3. A New Method of Early Diagnosis of Osteoarticular Affections, By Chiray and Mouret.

1. **Deafness.**—De Lavarenne says 5,000 out of 600,000 French adults are deaf, from causes that were curable had they been recognized early enough. Eliminating deafness of central origin and that following infectious disease as well as the form derived from dry, sclerous otitis, De Lavarenne says there remain 90 per cent. of cases easily amenable to treatment. Besides careful surgery of the nasopharynx, much benefit is experienced by inhalation of the vapor of sulphur waters, particularly those of Luchon. The vapor may be also directed into the aural passages. De Lavarenne's systematized treatment of deafness will appear in a future number.

2. **Renal Decapsulation.**—De Rouville summarizes nine cases of experiments on dogs of renal grafting, with subsequent nephrectomy on the opposite side. All were speedily fatal, save in one case where the operator found that the arterial ligature of the grafted kidney had not been complete.

3. **Early Diagnosis of Osteoarticular Affections.**—Chiray and Muret use a tuning fork of 128 vibrations a second and weighing about 500 grammes. When vibrating, the fork often causes pain in an affected area when placed where the

bone is nearly subcutaneous, and almost invariably discloses a hyperæsthesia. The authors think that the fork may eventually prove useful even in lesions of the soft tissues.

SEMAINE MEDICALE.

June 8, 1904.

Is the Mosquito Theory Admissible as the Sole Cause of Malarial and Yellow Fevers? By CHEINISSE.

Mosquitoes and Fevers.—Cheinisse is not prepared to admit that the mosquito is the sole cause of malarial and yellow fever. He thinks the thickness of the skin of indigenous races does not sufficiently explain their immunity since they are subject to filariasis. He states that the geographical distribution of anopheles is not exactly that of malaria. Epidemics of malaria have occurred in Algiers without the presence of mosquitoes. The writer is inclined to believe those who consider the fever caused by mosquito bites to be a mere inflammatory bilious fever and not the true yellow fever. He attributes the disappearance of yellow fever from Cuba to quarantine solely, and believes that soiled linen may communicate the disease.

June 15, 1904.

Dyspeptic Origin of the Minor Complications of Bright's Disease, By CHRYSSOVERGIS.

Minor Nephritic Complications.—Chryssovergis means by these the cryæsthesia, cramps in the calf of the leg, and the itching of the skin, attributed by Dieulafoy to slight uræmia. As they occur in individuals with perfectly sound kidneys, our author considers them to be of gastric origin. Headache, vertigo, ocular disturbances, ringing in the ears, lumbar pain, often considered to be serious symptoms, have the same ætiology and vary with the degree of dyspepsia. Even the "electric shock" is common in dyspeptics and the same may be said of the well known mental depression. Dyspnœa, palpitation, œdema, polyuria, epistaxis, all attack the patient whose nervous system is exhausted and whose bloodvessels may be slightly sclerotic, from age or from a prolonged and severe dyspepsia, or both.

RIFORMA MEDICA.

June 1, 1904.

1. On Special Necrotic Changes in the Cells of the Liver as the Result of Tuberculous Infection, By B. PERNICE.
2. Tuberculosis and Pseudotuberculosis, By F. SANFELICE.
3. Bacteriological Notes Upon a Case of Periurethral Abscess, By N. GIANNETTASIO.
4. On the Presence of Blastomycetes in Tuberculous Growths of the Nose, By A. DE SIMONI.
5. Parotiditis Due to the Pneumococcus, By P. PENNATO.

1. **The Liver in Tuberculosis.**—Pernice found that, in addition to the changes ordinarily described in tuberculous livers, these organs show certain alterations which resemble those occurring in other infections in man and animal. These changes consist of a vacuolization of the protoplasm a fragmentation of the fibres, and destruction of the chromatin, ending in a complete disintegration of the neucleus, and of the cell protoplasm, so that in the place of a cell there remains only a network of residual tissue. This necrotic process affects preferably the cells which are in the vicinity of the foci of infection, i. e., about the tubercles and in the neighborhood of arteries and veins. The necrotic process described is more extensive in cases of miliary tuberculosis. The author thinks that these changes are due to special bacterial poisons. These lesions are found in other infectious diseases, and their degree varies with the degree of virulence and the amount of the toxic products circulating in the blood.

2. **Tuberculosis and Pseudotuberculosis.**—Sanfelice studied the pathogenic properties of *Streptothrix,* including the different varieties of this germ. He found that *Streptothrix alba,* isolated from the air, was not pathogenic to rabbits or guinea pigs, except in two cases. In the first of these cultures, the author found a streptothrix which was pathogenic only for rabbits, while the second was pathogenic both for rabbits and guinea pigs. Preparations made from tubercles found in the organs of animals which died as the result of inoculations with the second culture contained bacilli resistant to acids, and resembling in every way those of tuberculosis. Guinea pigs inoculated with human tubercle bacilli presented identical lesions with those inoculated with *S. alba.* Certain changes were found to take place in the pathogenic power of *S. alba* in the passage from animal to animal. Two out of six dogs that were inoculated with cultures of *S. alba* died within a short time, and showed tuberculous lesions in the mesenteric glands. When cultures were made from these tubercles, and were inoculated into other animals, the germs obtained from the lesions of the latter were found to be branched and non-resistant to acids, and did not show the terminal bodies which characterize the organs of generation of Streptothrix. The author found that this change in the development of the germs was due to the exclusion of oxygen. Cultures of *S. violacea,* injected into animals, produced death within from 10 to 20 days, and on necropsy there were found lesions of the pseudotuberculous type in the lungs and the kidneys, and the tubercles contained germs resistant to acids.

3. **Bacteriology of Periurethral Abscess.**—Giannettasio examined the discharge from a periurethral abscess in a man aged 23 years and found an organism which resembled the gonococcus, but did not become decolorized by Gram's method. It has been stated by Fonseca that Gram's method decolorizes only the gonococcus which is obtained from gonorrhœal pus and grows in slightly acid media. The author believes that the germ found here belongs to the class of pseudogonococci, of which a number have been described, and that, as regards pathogenic powers, it stands somewhere between the true gonococcus and the non-virulent diplococci.

5. **Inflammation of the Parotid Gland in Pneumonia.**—Pennato reports a case of pneumononococcus infection which at first seemed general, but after a time became localized in the lungs. Pneumonococci were found in the blood on the fourth day of the pneumonia. A parotiditis oc-

curred as a complication of the pneumonic process and Pennato regards it as due to the pneumonococcus.

ROUSSKY VRATCH.

June 5, 1904.

1. A New Method of Vaporizing Medicinal Substances (*To be concluded*), By E. SCHATSKY.
2. The Diagnosis of Cancer of the Stomach (*To be concluded*), By Z. F. ORLOFFSKY.
3. Observations on the White Blood Cells in Typhoid Fever and in Some of Its Complications, By V. F. PETROFF.
4. The Organization of Obstetrical Aid in St. Petersburg (*Concluded*), By V. ZHELTOUKINE.

4. **Public Obstetrical Charities in St. Petersburg.**—The article of Zheltoukine includes an interesting historical and statistical study of the obstetrical institutions of the Russian capital. At present the lying-in institutions of St. Petersburg are fully adequate and thoroughly equipped. In 1867, that city had only four public institutions in which obstetrics was practised, and these could only accommodate 17 per cent. of the total number of pregnant women in the city. The percentage of mortality in these institutions was such (over 3 per cent. from sepsis) that those who did not enter for lack of room, were perhaps more fortunate than those who had been admitted. In 1869, a system of small lying-in stations, having three beds each, was inaugurated, and four such stations were established. In 1880 and in the following year the mortality from sepsis in the large institutions was so diminished through the adoption of aseptic methods that the system of small stations became unnecessary. In 1896 there were eleven lying-in institutions which admitted a total of five thousand seven hundred and forty-one pregnant women; but within the last six years two new institutions were opened, and the number of admissions was doubled. The largest of these institutions, the Clinical Obstetrical Institute, which is the official obstetrical centre of the city and the leading institution of its kind in Russia, has just been moved to a new and magnificently equipped building. The author concludes by stating that St. Petersburg occupies the first place among European cities as regards the percentage of mothers admitted to obstetrical institutions. In 1902, 58 per cent. of all pregnant women in that city were admitted to these hospitals; in Stockholm in 1900, 46 per cent.; in Paris in 1899, 32 per cent. (of this number 23 per cent. were delivered under the charge of midwives exclusively, while in St. Petersburg this occurs only in 1 per cent. of cases). In Vienna in 1900, 18 per cent. of all deliveries took place in the special hospitals; in Milan in 1902, 8.5 per cent., and in Berlin in 1902 only 8 per cent.

BOSTON MEDICAL AND SURGICAL JOURNAL

August 4, 1904.

1. Operations Upon Benign Diseases of the Stomach at the Boston City Hospital and Massachusetts General Hospital, 1898-1903, Inclusive, By F. B. LUND, E. P. JOSLIN, and F. T. MURPHY
   - (a) Introduction.
   - (b) Operations for Chronic Gastric Ulcer, Pyloric Obstruction, and Acute Dilatation of the Stomach.
   - (c) Operations for Perforation of Gastric Ulcer.
   - (d) Operations for Gastric Hæmorrhage.
   - (e) General Conclusions.
2. The Union of the Teachings in Cystoscopy and Microscopy, By FRANK M. JOHNSON.

1. **Operations for Benign Diseases of the Stomach.**—Lund, Joslin, and Murphy give in the title of their paper an adequate outline of its contents. Summaries of the histories of all the seventy-one cases on which the report is based are given. We give, in an abbreviated form, the author's general conclusions: "(1) The results of the operations were as follows:

	Number of cases.	Deaths.	Well.	Relieved.	Not relieved.	Secondary operations.
Chronic ulcers	21	5	7	4	5	8
Pyloric obstruction	21	5	9	3	4	2
Acute dilatation	1	1	..	..	..	..
Perforation	18	13	5	..	..	2
Hæmorrhage	10	10	..	..	..	1
Totals	71	34	21	7	9	13

(2) Surgical intervention in gastric hæmorrhage should be considered even before it is urgent and the surgeon should jointly with the physician watch the course of the patient. Operations upon females under thirty years of age should be most conservatively advised, since death under medical treatment is rare. This generalization, however, should not unduly influence consultants. Time should not be lost during an operation in seeking the bleeding point, but gastroenterostomy should be performed. (3) Mortality in operations for perforation of the stomach is chiefly dependent upon the length of time intervening between perforation and operation and the virulence of the infection. (4) Patients with chronic ulcers of the stomach or strictures of the pylorus should be jointly watched by the physician and surgeon. The surgeon should know the patient before being compelled to operate. Postponement of operation after it is indicated is dangerous. (5) Errors in surgical technics occurred, which in subsequent operations will presumably be avoided. Methods of operation were chosen which in the light of the experience of to-day would be considered unsuitable. These causes account for about half of the deaths. (6) The seventy-one cases were operated upon by twenty-five different surgeons. It is reasonable to conclude that the mortality would have been less if each surgeon had had more experience."

2. **Cystoscopy and Microscopy.**—Johnson's paper is exceedingly sketchy in character. He calls attention to the advantages that are to be derived from resorting to the microscope and cystoscope in studying diseases of the genitourinary tract.

MEDICAL RECORD.

August 6, 1904.

1. Rectal Constipation in Women, By GRACE PECKHAM MURRAY.
2. Hypodermic Injection of Strychnine Nitrate in the Treatment of Progressive Muscular Atrophy, By SANGER BROWN.
3. The Clinical Features of the Epidermic of Dysentery at Tuckahoe, N. Y., During the Summer of 1902. By OLIVER L. AUSTIN.

4. Use of Series of Spark Gaps for X Ray Work, By L. Weiss.
5. A New Operation for Pyothorax, By Spencer Graves.
6. A Case of Foreign Body Remaining in the Lens of the Eye for Six Years with the Lens Otherwise Clear, By Frank N. Lewis.
7. A Case of Chronic Fibrinous Bronchitis, with Especial Reference to the Treatment of This Disease, By W. Moser.
8. Fibrils and Ganglion Cells, By V. Biart.

1. **Rectal Constipation.**—Murray gives the causes of rectal constipation in women as (1) nervous; (2) inflammatory (piles, fissure, fistula); (3) uterine displacements, new growths, and periuterine inflammations; (4) pouching of the rectovaginal sæptum into the vagina, thereby forming a cul de sac. Treatment must depend on the cause. Cathartics may be of use in all cases except in those where there is a displacement of the rectovaginal sæptum. In this last class of cases glycerin or gluten suppositories or injections of olive oil or glycerin will give the best results.

2. **Progressive Muscular Atrophy.**—Brown reports four cases treated by hyperdermic injections of strychnine nitrate. While his experience with this method of treatment is limited he is quite hopeful that it will prove a distinct therapeutic advance. It is important to use the nitrate and to use it hypodermically. The dose should be about one twenty-fifth of a grain a day continued for six weeks then intermitted for two weeks and then resumed, and so on until several courses have been administered.

4. **Spark Gaps in X Ray Work.**—Weiss holds that if it were not for the inverse current generated by the coil it would be possible to use much larger currents in x ray work. If this was done the time of exposure could be greatly reduced. This the author has succeeded in doing. He illustrates a spark gap he has devised. It can be mounted in series and attached to any coil. The advantages of these series spark gaps are: (1) The tube can stand the full output of the largest coil with the vacuum remaining constant. (2) The tube is kept almost entirely free from blackening. (3) The anode is kept from readily becoming hot. For these three reasons the life of the tube is necessarily prolonged. (4) A richer volume of x ray is produced, and so exposures of radiographs are greatly reduced.

5. **Pyothorax.**—Graves thus describes the new operation he proposes for the treatment of pyothorax: "Removal of the entire rib anterior to the opening for drainage, which should be as near the posterior wall of the suppurating cavity as possible, the purpose of this being to prevent deformity; and resection of rib above or below, for adequate drainage in some recent cases of empyema. Removal of entire rib, if necessary two ribs (except the head), with resection of one for drainage in chronic cases, for the purpose of contracting suppurating cavity, which persists because of the thickened pleura and unexpanded lung. The rib removed should be the one passing over the centre of the cavity, or one a little below this point. The removal of the rib as suggested seems to be followed by the ones above dropping lower, the cartilage bending and the change takes place without deformity."

7. **Fibrinous Bronchitis.**—Moser asserts his belief that creosote will give the best results in the treatment of fibrinous bronchitis. It should be given both during the attacks and during the intervals. For the relief of the suffocation in the acute stages, oxygen, steam inhalations, plain or medicated with an alkali, and codeine will be found of use.

8. **Fibrils in Ganglion Cells.**—Biart, using Ramón y Cajal's new method for staining ganglion cells, has reached the conclusion that Nissl's assertion that there exists an intercellular net work is not correct. The author finds that all the fibrils lie either within the cells or their processes.

AMERICAN MEDICINE.

August 6, 1904.

1. The Recognition and Treatment of Chronic Myocardial Disease, By A. A. Stevens.
2. Enlargements of the Liver, with Report of Cases, By J. N. Hall.
3. Splenohepatic Fibrosis with a Remarkable Leucocytosis, By B. K. Fletcher and S. W. Sappington.
4. Frambœsia: Its Occurrence in Natives of the Philippine Islands, By Paul G. Woolley.
5. Subcapsular Nephrectomy for Pyonephrosis, with Report of a Case and Exhibition of Specimen, By John DeVinne Singley.
6. Surgical Aspect of a Case of Jacksonian Epilepsy, By G. Childs-Macdonald.
7. Treatment of Chronic Internal Hydrocephalus by Lumbar Puncture, By H. Lowenburg.
8. Several Points Concerning Cerebral Invasion of Pathogenic and Pyogenic Organisms, By Sir William Macewen.

1. **Chronic Myocardial Disease.**—Stevens asserts that fatty degeneration and fibroid induration are the two most important chronic affections of the myocardium. The author uses the term fibroid induration to designate a condition in which the walls of the heart are the seat of a diffuse or circumscribed overgrowth of fibrous tissue. The symptoms to which our attention is first directed in chronic myocardial disease are breathlessness on slight exertion, disturbances of sensation, either subjective or objective, in the region of the heart or along the course of the nerves associated centrally with the vagus and sympathetic, irregularity of the pulse, and accentuation of the aortic second sound. Attacks of syncope, of cardiac asthma, of angina pectoris, and asystole, the Stokes-Adams syndrome, and Cheyne-Stokes breathing are among the more conspicuous manifestations of cardiac incompetency, but they do not occur, as a rule, until the degenerative changes in the myocardium are well advanced. The treatment recommended by the author is the usual one. Diet, hygiene, regulation of the bowels and restriction of the exercise. Of drugs strychnine is the most useful. Digitalis at times will do good, at times harm.

3. **Splenohepatic Fibrosis.** — Fletcher and Sappington use the term splenohepatic fibrosis for want of a better name with which to label their case. It was a remarkable one and even after autopsy it was found impossible to reconcile apparently conflicting symptoms, conflicting in the sense that they prevented classifying the case among one or other of the well known diseases of either the liver or spleen.

An abstract, unless it were very long, would serve no useful purpose.

7. **Chronic Internal Hydrocephalus.**—Lowenburg asserts that the following conditions must be present in each case before lumbar puncture should be practised: (1) Free communication must exist between the ventricles and the subdural spinal space. (2) The head must be compressible. (3) The bones must be flexible and there must be no evidence of ossification in the fontanelle or the sutures. (4) Ossification is usually well advanced after the second year, therefore treatment must be instituted before this period. (5) Lumbar puncture is preferable to direct tapping of the ventricles, as there is an entire absence of all danger of the untoward complications following the latter.

MEDICAL NEWS.

August 6, 1904.

1. Conservatism in Otology, By GORHAM BACON.
2. Intrahepatic Cholelithiasis (*Concluded*). By EDWIN BEER.
3. Observations on Dilatation of the Stomach and on Gastroptosis By ROBERT COLEMAN KEMP.
4. Experiments to Determine the Value of Collargolum and Antistreptococcic Serum in Infected Wounds of the Eye, By J. H. CLAIBORNE, and E. B. COBURN.
5. Puerperal Sepsis, By SWITHIN CHANDLER.
6. Vaccination and the Law, By NELSON G. RICHMOND.
7. Dipsomania and Its Treatment, By WILLIAM LEE HOWARD.

1. **Conservatism in Otology.**—Bacon admits that, many years ago, if his chief did not operate at once on a case of ear disease which he had decided needed operation he was apt to think that his chief was either growing old or had lost his nerve. The author protests against the advice so often given to operate in every case of chronic otitis media. Many cases will recover under conservative treatment. The author reports four cases to illustrate what can be done without operation.

3. **Dilatation of the Stomach and Gastroptosis.**—Kemp insists that mere chemical analysis of the stomach contents is insufficient. One should investigate the motor function of the organ and its position and size. The author devotes special attention to the consideration of acute dilatation of the stomach and to the best methods of determining its position and size. Eleven methods of locating the position of the stomach are described. The ideal method is by transillumination. This is the method first suggested by Einhorn.

5. **Puerperal Sepsis.**—Chandler proposes the following method for the treatment of selected cases of puerperal sepsis: "Make an incision posterior to the cervix in the posterior vaginal wall; then pass a pair of long blunt-pointed forceps, slightly curved, in the cervical canal, up into the cavity of the uterus; puncture the posterior wall in the centre near the top of the uterus. Then introduce with two fingers a piece or strip of iodoform gauze through the posterior vaginal opening previously made, clasp the gauze with the forceps and drag it through the uterine wall and out through the vagina. Repeat this by puncturing the uterus on each side, but posteriorly and just about the middle of the body, drawing the gauze through in the same manner as in the first attempt." The author has treated twenty cases by this method. Four of these cases are reported. They are not on the whole very convincing.

6. **Vaccination.**—Richmond, if we apprehend him correctly, is of the opinion that if a "conscience clause" was introduced into our vaccination laws a good deal of the opposition to the practice would die out. It will be remembered that the English law is so constructed.

7. **Dipsomania.**—Howard looks upon dipsomania as "a symptom of functional neurosis, the periodic psychic explosions being caused by accumulation of autotoxic material, this being primarily due to an unstable nervous organization allowing faulty metabolism." The clinical distinction between dipsomania, a symptom of cortical disturbance, and inebriety or chronic drunkenness is easily made and, without this distinction, rational treatment cannot be undertaken. The author's treatment for dipsomania, which he claims is very efficient, consists in first reducing autointoxication and second in the prolonged exhibition of fair doses of strychnine nitrate over long periods.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

August 6, 1904.

1. What is the Proper Surgical Treatment of Suspicious Tumors of the Involuting Breast? By J. CLARK STEWART.
2. Hyperidrosis Pedum and Its Treatment by Baths of Permanganate of Potash, By LUDWIG WEISS.
3. X Ray Therapy in Skin Diseases, By GEORGE PFAHLER.
4. The Cutaneous Manifestations of Diabetes Insipidus. Report of Three Cases, By A. W. BRAYTON.
5. The Physiology of the Middle Ear, By J. HOLINGER.
6. Another Member of the Dysentery Group, By C. W. DUVAL.
7. Vital Action of the Dental Pulp. By R. R. ANDREWS.
8. Pulp Degeneration. By EUGENE S. TALBOT.
9. Tuberculosis in the Jewish District of Chicago. By THEODORE B. SACHS.
10. The Diagnosis of Scarlet Fever and Scarlatinoid Affections, By JAY F. SCHAMBERG.
11. The Technics of Wounds Incident to Laparotomy, By HENRY O. MARCY.
12. The United States Public Health and Marine Hospital Service. Part I. An Historic Sketch. (b) Dr. Woodworth's Administration, 1871-1879 (*Continued*).
13. Travel Notes (*Continued*). III. Spain and Ramón y Cajal, By LEWELLYS F. BARKER.

1. **Suspicious Tumors of the Breast.**—Stewart, after reviewing the literature concerning the proper treatment of suspicious tumors of the involuting breast, and briefly reporting two cases concludes: (1) There is a lamentable and unnecessary difference of opinion among surgeons as to the treatment of doubtful tumors of the breast. (2) All tumors of the breast in patients over 40 must be considered malignant until proven benign. (3) Most of such tumors demand amputation of the breast with exploration of the tumor, and a complete Halsted operation if there is then doubt as to benignancy. (4) An exploratory procedure should be planned so as to avoid contact of cut lymphatics

with any tissues left behind, and any chance of dissemination of cancer cells by pressure before the removal of the breast. (5) X ray treatment, aspiration, or any but radical treatment is objectionable as causing delay and dissemination.

2. **Hyperidrosis Pedum.**—Weiss covers the subject of sweating feet in textbook fashion. The treatment for the condition, which he specially recommends, follows: (1) The feet should be cleaned with borax water and soap, then with benzine. (2) Every night the feet should be soaked in a permanganate of potash solution. For the three first night a one per cent. solution is used. For the balance of the first week a two per cent. solution. For the second week a four per cent. solution. The temperature of the baths should be, at the start, 104° F., gradually increasing to the point of toleration. (3) Every morning the feet should be dusted with a powder whose chief ingredient is potassium permanganate (13 per cent.). The shoes and stockings should be changed daily if possible.

5. **The Physiology of the Middle Ear.**—Holinger discusses the physiology of the drum cavity; the attic; the aditus ad antrum; the mastoid antrum; the mastoid cells; the eustachian tube. The author propounds the theory that the middle ear attends to two functions: the first is protective, the second is concerned with the transmission of sound waves.

6. **Dysentery.**—Duval announces the discovery of another member of the dysentery group. This new organism stands in close relationship to the typhoid bacillus. Most of its properties are, however, those of the dysentery group.

9. **Tuberculosis and the Jew.**—Sachs concludes: (1) The so-called immunity of Jews from tuberculosis is greatly overestimated. (2) As tuberculosis is a social disease, the prevalence of which is determined by unfavorable conditions of life, its eradication can only be accomplished by the combined efforts of the state, laity, and medical profession. (3) That better housing conditions, dissemination of knowledge concerning tuberculosis and its prophylaxis, compulsory notification, thorough disinfection of premises previously occupied by consumptives, and establishment of public sanatoria for treatment of this disease would put an end to its present widespread occurrence.

BRITISH MEDICAL JOURNAL.

July 23, 1904.

1. Report of Special Chloroform Committee of the British Medical Association.—Introduction. Appendix I.—On the Dosage of the Isolated Mammalian Heart by Chloroform.—Part II. Perfusion With Blood, By C. S. SHERRINGTON, and S. C. M. SOWTON.
   Appendix II.—Further Report on the Form of Inhaler Submitted to the Committee, By A. V. HARCOURT.
   Appendix III.—Estimation of Chloroform Dissolved in Blood, By D. B. BYLES, A. V. HARCOURT, and SIR V. HORSLEY.
2. The Use and Abuse of Midwifery Forceps, By J. A. C. KYNOCH.
3. The Present Position of Radium in Therapeutics: with a Summary of the Finsen Light and X Ray Treatment, By C. M. O'BRIEN.
4. Some Results of Treatment by X Rays, High Frequency Currents, and Ultraviolet Rays, with Illustrative Cases, By J. A. CODD.
5. Colitis Polyposa, By F. POPE.
6. A Fatal Case of Cyanosis with Enlarged Spleen, By T. FISHER.

1. **Chloroform.**—Sherrington and Sowton, in the continuation of their report on the effect produced on the isolated mammalian heart by perfusion of chloroform, give the results obtained when the chloroform is exhibited not in saline solution, but in the blood itself. Administered in physiological saline solution, it depresses the heart's beat much more powerfully than when administered in blood in the same percentage strength. The effect of chloroform from 0.05 per cent. up to 0.1 per cent. in blood is to depress the heart beat only equivalently to chloroform solutions about twelve times less concentrated in physiological saline solution. Byles, Harcourt, and Horsley describe their method of estimating the amount of chloroform dissolved in blood. From their results they infer that the retaining power of the blood for chloroform is also associated in some degree with the integrity of the corpuscles at the time of entry of the chloroform into the blood.

3, 4. **Radium, Finsen Light, and X Rays.**—O'Brien, as a result of his observations, states that radium must be forthcoming in much larger quantities, of a recognized standard of activity, and at a very much cheaper rate, if it is to be of practical use in the cure of disease or the relief of suffering. It is very doubtful if radium can ever be of much use for diagnostic purposes. With the x rays there is much ground for hope in both lupus and rodent ulcer, and, combined with Finsen light, the results recorded are becoming more universal and more reassuring. After eighteen months' further experience the writer is more convinced than ever that the Finsen light for circumscribed superficial lupus has no equal.

Codd reports some illustrative cases treated by electrotherapy: x rays, high frequency currents, etc. In lupus and rodent ulcer the results were most excellent. Great relief has also been given in cases of severe intractable lumbago, sciatica, neuralgia, and tinnitus aurium. Two cases of diabetes treated with high frequency currents were greatly benefited, but did not lose their sugar. In the use of these powerful agencies special study should be given both to mastering thoroughly the intricacies of apparatus and ascertaining their best output, and also to such questions as dosage and the indications for modification in the treatment shown by the reaction in the patient's tissues.

5. **Colitis Polyposa.**—Pope reports the case of a girl, aged twenty-one years, who died from asthenia following prolonged puerperal septicæmia, and diarrhœa with blood in the stools. At the necropsy the mucous membrane of the colon was found thickly covered with more or less pyramidal polypoid excrescences varying from the size of small shot to that of a field pea. There was no ulceration. The majority of the growths were black at the apex: they were largest in the

transverse portion of the colon, and extended into the upper part of the rectum. Assuming that the polypoid condition was a direct result of septic conditions, we must recognize that it is possible to have a hypertrophic inflammation of the mucosa as well as the more common atrophic and destructive conditions met with in dysentery and the more usual forms of ulcerative colitis, and that as this condition of hypertrophy is not likely to have been of rapid growth, it is probable that the other septic processes in the patient were secondary to the colitis. Treatment should be mainly surgical, colotomy and free washing out being indicated if the patient's condition is strong enough.

6. **Chronic Cyanosis.**—Fisher gives the necropsy findings in a case of cyanosis with enlarged spleen—the case occurring three years ago before Osler reported his series of similar cases. The special features of the case, in addition to the cyanosis and obesity, were an unusual amount of decomposition, some dilatation of the heart, an enlarged spleen, and greatly enlarged kidneys.

LANCET.

July 23, 1904.

1. Bright's Disease and Its Varieties. (Croonian Lectures, II), By J. R. Bradford.
2. Postgraduate Demonstration on Rheumatoid Arthritis, By C. J. Macalister.
3. One Hundred and Ten Cases of Total Enucleation of the Prostate for Radical Cure of Enlargement of That Organ, By P. J. Freyer.
4. The Method of Closing an Abdominal Wound, By J. D. Malcolm.
5. On the Education of Visual Centres, By W. H. Hall.
6. The Radical Cure of Umbilical Hernia, By B. G. A. Moynihan.
7. A Case of Excision of the Cæcum: Recovery, By J. B. Footner.
8. Postdiphtheritic Chronic Bulbar Paralysis, By W. Harris.
9. Case of Wilful Introduction of Foreign Bodies Into the Œsophagus: Death, By J. H. Targett, and S. B. Atkinson.
10. The Use of Phenylhydrazine in the Clinical Examination of Urine, By W. H. Willcox.
11. One Form of Suppurative Appendicitis, By A. C. Roper.
12. Abdominal Pain of Intestinal Origin, By F. H. Wiggin.
13. Preliminary Note on the Development of Trypanosomes in Cultures of the Cunningham-Leishman-Donovan Bodies of Cachexial Fever and Kala-azar. By L. Rogers.

1. **Bright's Disease.**—Bradford, in his second Croonian lecture, discusses action of the toxic agents on the kidney. The great problem in the present day is to determine to what extent physical agents or toxic agents, respectively, are to be looked upon as the actual causative agents. A very considerable number of renal poisons exist capable of producing marked structural alterations in the organs. But none of them produces a clinical picture at all similar to that seen in Bright's disease, since dropsy is absent. Still in some of the most severe forms of acute human nephritis dropsy is absent: in such cases the phenomena are closely similar to those seen in so called obstructive suppression.

2. **Rheumatoid Arthritis.**—Macalister calls attention to the fact that rheumatoid arthritis is a very complex disorder which has many factors concerned in its ætiology. In some cases there is a history of an initial attack of rheumatic fever of long duration, in others septic fevers have preceded the rheumatoid arthritis. There is a relationship between some manifestations of this disease and the thyreoid functions, and occasionally administration of thyreoid extract is most beneficial. Raynaud's disease, migraine, and rheumatoid arthritis are also closely related.

3. **Enucleation of the Prostate.**—Freyer's remarks are based on 110 cases of his operation for total enucleation of the prostate, which consists in enucleating the enlarged organ entire in its true capsule out of the encasing sheath, leaving the urethra with its accompanying structures behind. But the prostatic urethra may be torn, partially, or even totally removed with equally good eventual results. The bladder is washed out and a gum elastic catheter left *in situ:* a suprapubic cystotomy is then performed, and the prostate shelled out with the finger nail and removed through the bladder wound with strong forceps. He has performed the operation in 110 cases, the patients averaging 68 years of age, and the prostates weighing from three quarters of an ounce to fourteen ounces. The vast majority of the patients had been leading the catheter life for years, were in broken health, and many were apparently moribund. Death followed the operation in ten instances, but in only five could it be attributed thereto, the remainder dying of diseases incident to old age. In three instances the enlargement of the prostate proved to be cancerous. In the remaining 97 cases the patients regained the power of retaining and passing urine naturally without the aid of a catheter.

8. **Bulbar Paralysis.**—Harris reports a case of chronic bulbar paralysis occurring in a man aged twenty-five years. The trouble dated back seven years when he had had what was probably an attack of diphtheria followed by œsophageal paralysis. The patient improved greatly under galvanism and strychnine. The author has previously reported two similar cases of bulbar paralysis originating in diphtheria. The neuritis of the anterior spinal roots probably extended to the nerve cells themselves, starting progressive nuclear degeneration in the affected cell groups. One of his three cases has completely recovered, and the second partially, while the third is very slowly but progressively growing worse.

10. **Phenylhydrazine.**—Willcox reports the results of his experiments to determine the value of phenylhydrazine as a clinical test for sugar in the urine. He finds that normal urine invariably contains some substance—a polysaccharose or glycoproteid perhaps—which itself gives no characteristic crystals with phenylhydrazine, but

which after hydrolysis always yields a substance (probably a sugar), which latter substance gives very characteristic crystals with phenylhydrazine. So that the production of characteristic yellow crystals in a urine after hydrolysis by boiling with hydrochloric acid, can in no sense be used as a specific test for any special pathological condition, since such crystals are constantly obtained from normal urines.

11. **Appendicitis.**—Roper reports three cases of appendicitis in which, at the operation, appendiceal abscess was found due to a caseating lymphatic gland. He suggests that in some of the milder cases of recurrent appendicitis suppuration may be commencing in a gland secondary to infection from the appendix.

13. **Culture of Trypanosomes.**—Rogers reports that when blood containing the so called Cunningham-Leishman-Donovan bodies from cases of cachexial fever is mixed with a little sodium citrate solution and incubated at a temperature of 22° C., fully grown trypanosomes develop; so that the bodies described by Leishman are one stage in the life history of this human trypanosome. Further, a living trypanosome has been found in an anopheles mosquito.

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Letters to the Editor.

A GASTROINTESTINAL MANIFESTATION OF INFLUENZA.

5211 Wayne Avenue, Germantown,
Philadelphia, *August* 1, 1904.

To the Editor,

Sir: At present in Germantown there is an epidemic of gastroenteritis that presents some unusual features. The disease is not confined to the bottle fed, but nurslings are affected. Children as old as four years also are victims. The disease begins with vomiting, diarrhœa, and fever. If the fauces are examined, they are found red and swollen. Invariably I have found a row of enlarged glands in the posterior cervical region. There may be some otitis with the infection also. The gastroenteric symptoms are characterized by the persistent nausea and vomiting and by very putrid stools. After calomel the symptoms abate for a time only to recur. The stools often contain great masses of mucus, and are offensive throughout. Intestinal irrigation and lavage do good, and bismuth in its various combinations is valuable. But I have been struck with the persistent nausea, the great masses of mucus voided, the general difficulty of effecting a cure in the ordinary time, and the great tendency to relapse.

In severe cases the liver and spleen are enlarged markedly, and, as is usual in certain cases of gastroenteritis, pneumonia supervenes.

Often in the same households I have treated at the same time adults with a bad pharyngitis running on to laryngitis and bronchitis.

The ætiology seems to be the same as that of influenza, and I have considered the cases as such. Milk infection does not play the ordinary rôle. Infants on certified milk, mother's milk, and ordinary milk are affected, as are older children on ordinary table food.

Robert L. Pitfield.

URINE AS A DISSEMINATOR OF TYPHOID FEVER.

135 Marlborough Street,
Boston, *August* 1, 1904.

To the Editor,

Sir: Your editorial with this heading in your issue of July 23d touches a matter of very great importance. It has seemed to me highly probable that typhoid was largely spread through the urine of those affected by this disease in camp and field at the time of the Spanish war. The specific bacillus passes out in the urine of perhaps twenty per cent. of cases of typhoid. It is a burdensome matter, and may be impracticable, to determine which cases are dangerous in this respect. Ever since the Spanish war it has, therefore, been a matter of routine with me, alike in my service in the Massachusetts General Hospital and in private practice, to give every typhoid patient seven to ten grains of urotropin thrice daily two days in each week until convalescence is completed. If there is bacilluria, the urine is rendered innocuous, if there is not, the patient suffers no harm. I believe that if this practice was universal a very insidious mode of propagation of typhoid fever would be prevented.

Frederick C. Shattuck.

THE PLASTER ABDOMINAL BELT.

1351 Willson Avenue,
Cleveland, Ohio, *July* 30, 1904.

To the Editor,

Sir: In your last *Journal,* July 23d, you editorially refer to the Rose-Rosewater abdominal adhesion plaster bandage being more generally used in Germany as advocated by Dr. Clemm, of Dresden. There are some suggestions you make which should be modified; for instance, it is unwise in very hot weather to leave them on longer than two to three weeks, else a papulopustular eruption is apt to develop on some tender skins in spite of strict cleanliness, due to perspiration under the plaster. Some skins remain unirritated for a long time. Some can have one set renewed as fast as the old is taken off—year in and year out. One of my patients kept hers on for three months without any bad effect, but to insure a continuance in all cases it is best to renew frequently in hot weather and not later than four weeks in winter, for they cease to hold up sufficiently, as a rule, by that time, recurrence of some of the symptoms subsiding at once on applying a new firm bandage in place of the old one. I do not know to what extent Clemm's article, published in May, 1904, can have popularized the use of this bandage, but when I was in Berlin, in May, June, and July of 1903, this method was unknown and unused, and I demonstrated its usefulness in Rosenheim's, Cohnheim's, and Boas's clinics, also in Ritter's, Klemperer's, and Krohn's clinics, in all of which its practicability was acknowledged, and from letters I have since received its use has been continued. In Ewald's clinic it was not used. The reason Clemm has resorted to moleskin plaster is that the German zinc oxide plaster cannot compare in toughness and adhesive qualities with the American zinc oxide plaster, some of which I took with me and used to demonstrate with in those clinics until my supply gave out, when I was obliged to use the German. The latter would hardly remain sticking a week; nevertheless the results were so gratifying that they kept on using it. As to the relative merits of my method and that of Dr. Rose, the following description will speak for the practicability of my method: It admits of variations to suit, the central strip can be left off in many cases or used with the bottom cross strip, especially with children. "With the patient supine, one strip of (preferably) 3-inch plaster is fastened at one end to the abdomen just above and at right angles to the pubes, the abdomen pushed up, and, while traction is well maintained, the other end is fastened upon the sternum. Another strip is attached diagonally, partly covering and partly to the left of the lower end of the first strip, lifting the abdomen diagonally upward and outward while making traction on the distal end and fastening it over the lower ribs as far back as the spine. Finally a strip is attached across the abdomen from hip to hip so as to overlap and hold down the lower ends of the other strips above the pubes. The first strip aids the recti, the others assist the oblique and transverse muscles in preventing undue downward and outward pressure and in supporting the entire addominal wall upon its bony framework, furnishing physiological rest and tone to weak muscles, to organs dragged down or else pressed upon, releasing overstretched (therefore stenosed) blood and lymph vessels, and to nerves and ligaments out of normal tone and function from constant irritating drag.

The heart, obliged to pump so much more forcefully to overcome the impediment, the result of drag and pressure, must necessarily be pumping with an abnormal volume and force into the thoracic and cranial cavities, which lie above the stenosed and impeded vessels, so as to cause from this oversupply hypertrophies of the tongue, of the tonsils, and of the adenoid tissue of the thyreoid, and other growths, provided the blood oversupply is not evenly distributed.

In cases such as these, such a simple bandage as above described I have used alone without medication and seen these growths disappear entirely. Such cases in which I described this method fully, I reported to the Cleveland Medical Society in February, 1900. I have used this bandage with excellent results in all my cases of whooping cough and can corroborate the statements (*N. Y. Med. Jour. and Phila. Medical Journal,* June 25th, p. 1257) of Dr. Kilmer, of New York, in which he reported before the American Medical Association eighteen cases of whooping cough treated with excellent result by means of a supporting abdominal belt, vomiting in this disease and many others being thus well controlled. Displaced stomachs are actually forced upward by this support, except where adhesions prevent. In enuresis of children and incontinence of pregnant women and others, when due to pressure on the bladder, nothing but the bandage is required. Wherever the heart is laboring in overcoming the conditions above described the use of heart stimulants or tonics simply increases the irregularity of the blood distribution, and failures of such tonics may often be attributed to such conditions. I give digitalis, strychnine, etc., after bandaging, with better results and a feeling of security, if I require them at all, after having observed the irregular and overworked heart with its missed beats, dyspnœa, and other sequelæ become steady at once even at times while I was at the bedside, after proper bandaging, and watched the patient go to sleep quietly after a period of previous insomnia and dyspnœa, because there was no longer an oversupply of blood constantly being pumped into the brain and crowding the lungs.

As to the credit for first originating this plaster belt, whether it is due to Dr. Achilles Rose or myself, I can only profess to have used it since 1897 and reported my method with cases in February, 1900, before the Cleveland Medical Society; it was published in the *Cleveland Medical Journal* in May and June of that year. I have been told by one of my patients that the late Dr. Nathan Jones, of this city, bandaged her similarly all of ten years ago. However, it is a pleasure to know that it is gaining in favor, which it surely will if tried.

Nathan Rosewater.

AMERICAN MEDICAL ASSOCIATION.

Fifty-fifth Annual Session, Atlantic City, June 7, 8, 9, and 10, 1904.

SECTION ON DISEASES OF CHILDREN.

Third Day, Thursday, June 9th.

Hæmaturia as the Earliest or Only Symptom of Infantile Scurvy.—Dr. John Lovett Morse, of Boston, reported a number of cases illustrating the fact that hæmaturia is a not uncommon symptom of infantile scurvy. Early writers on the subject had noted that it might be the earliest, and therefore, for a time, the only symptom. Scurvy was the most common cause of uncomplicated hæmaturia in infancy.

Dr. William L. Stowell, of New York, said that a more systematic examination of the urine of young infants was very desirable. Hæmaturia in the adult might be caused by stone, but this was comparatively rare in infants, so it usually could be regarded as an accompaniment of blood disturbance. This entire subject was still very much confused. If there was a special germ or diathesis underlying the condition, it had not yet been found, nor had a special remedy been discovered. The speaker said his own impression was that it was due to a specific germ. At present, adrenalin seemed to give the best curative results.

Dr. H. M. McClanahan, of Omaha, said the important point in Dr. Morse's paper was that hæmaturia might be the first and only symptom of scurvy for a considerable time. Scurvy was readily curable if recognized within a reasonable time, before secondary changes had taken place.

Dr. J. Ross Snyder, of Birmingham, Ala., called attention to the fact that this early and important symptom of scurvy had probably been frequently overlooked.

Intestinal Obstruction in Children. — Dr. JOHN F. ERDMANN, of New York. This paper embraced the chief symptomatic features of intussusception, strangulated hernia, postoperative bands and Meckel's diverticulum as causes of intestinal obstruction in children. The major part of the paper, however, was devoted to intussusception. This condition, barring a few accidental cases, was one that demanded prompt surgical intervention. He was impressed more and more with the necessity of immediate operation in these cases, and of not temporizing with air inflation or water injection.

The diagnosis of intussusception was not difficult, although the symptomatology, as given in the former textbooks on diseases of children, etc., ought to be rewritten with a view of placing all the stress upon the presence of blood or bloody mucus in the stools, and not upon the presence of a sausage-shaped tumor. In over 60 per cent. of a series of 28 cases seen by Dr. Erdmann, in 24 of which he operated, there was no tumor of any kind, palpable either per rectum or through the abdominal wall. On the other hand. there was not a single acute case in which blood or bloody mucus or serum was not found, either upon the diaper. in the commode, or expelled from the anus after digital examination.

Sudden pain was almost invariably the first symptom that the child manifested; then a degree of shock varying in intensity, and efforts at defecation took place. These were followed by manifestations of spasmodic pains; a peculiar whining cry or fits of crying. In the first hour or two the abdomen was lax, and no marked evidence of pain was produced by palpation. A tumor was not felt unless the intussusception was of considerable extent and was taking place rapidly. After a few hours, dependent upon the degree of obstruction, abdominal distention and evidence of complete obstruction occurred. Although some fæces might be expelled with the bloody rectal contents, they were due entirely to the fact that these contents were below the point of obstruction. When a tumor was felt, it was not usually the proverbial sausage-shaped tumor, but was more apt to be round or nodulated, and moderately movable. There was usually an accelerated pulse and elevation of temperature from one to two and a half degrees. In the treatment of intussusception. rectal enemata during the first few hours were not productive of harm. and might, though rarely, be followed by reduction. This occurred but three times in 28 cases seen by the author. Although these patients bore operative intervention quite well. it was significant that his greatest mortality rate occurred in those cases which required the longest time for reduction. Chloroform was the anæsthetic used in all his cases. The incision was invariably made in the middle third of the right rectus. and usually did not exceed two inches in length. Among his last six cases, operated on during the past fourteen months, there were two deaths. In one of these cases death was attributed to the status lymphaticus, and in the other it followed an extensive excision of the ileum.

Dr. ISAAC A. ABT, of Chicago, said that some cases of intestinal obstruction in children were of a paralytic nature occurring in the course of pneumonia or other systemic affection, or dependent on the ingestion of certain kinds of food producing ptomaine poisoning and intestinal infection. The speaker said he did not believe that such cases could be benefited by surgical intervention.

Dr. LOUIS FISCHER, of New York, said the results of operations on children for the relief of intestinal obstruction that he had seen had not been so good as those reported by Dr. Erdmann, and his experience had impressed him with the belief that children did not bear laparotomy well. He could recall at least six cases in which laparotomy was done with fatal result.

Dr. S. W. KELLEY, of Cleveland, said that the injection or inflation method of reducing intussusception, if properly done, was useful in certain cases. Spontaneous reduction occasionally occurred under the use of opium; the drug should only be used early in the attack, and was not to be depended upon. The consent of the parents could not always be obtained to a laparotomy. One objection to the use of air was that it was difficult to gauge the pressure. He had overcome this difficulty to some extent by first introducing air and then water. which could be more easily handled and by which the air pressure was regulated. He thought a pressure of four or five pounds was sufficient, and this should be kept up for a period of from fifteen to twenty-five minutes. He considered this more effective than a higher pressure kept up for a shorter time.

Dr. SAMUEL McC. HAMILL, of Philadelphia, said it had been shown experimentally that irritation of the rectum produced reversed peristalsis. and this might have some bearing on the spontaneous reduction occurring in some cases of intussusception.

Dr. A. JACOBI, of New York, said that the reversed peristaltic wave would probably be interrupted at the point of intussusception.

Dr. JOHN LOVETT MORSE, of Boston, said that their experience at the Infant's Hospital indicated that babies bore, not only laparotomies, but other severe operations well, providing they were kept warm during the operation.

Perinephritis in Children.—By Dr. WISNER R. TOWNSEND, of New York. The author stated that the term perinephritis had been used by most writers to describe an inflammation in the tissues surrounding the kidney. Some would limit it to those cases where the disease originated in the fibrous sheath of the kidney. When it began in the fatty tissue. they preferred the term paranephritis or epinephritis.

Perinephritis was not of frequent occurrence. Nieden, in 1897, could only find records of 166 cases. Of these, 23 patients were under fifteen years of age. the youngest being five weeks old. Gibney, in 1876, reported 9 cases. and in 1880 increased the total to 28. The ages ranged from eighteen months to fifteen years. In 16 cases there was suppuration; in 12 no suppuration. In 19 no cause was found.

Dr. Townsend reported six cases of perinephritis in children seen at the Hospital for the Relief of the Ruptured and Crippled, during the years 1894 to 1903. In no instance in the six cases was a correct diagnosis made by the attending physician who first saw the patients: all were sent to the clinic to have either spinal or hip braces applied. Gibney and others state that an erroneous diagnosis was made in over 50 per cent. of the cases seen.

Only in rare instances should any difficulty arise in correctly interpreting the symptoms in a case of beginning perinephritis. After an abscess had formed, the diagnosis was usually easily made. In most instances, the ætiology was obscure, but in many a definite cause was supposed to exist. Exposure to cold, a strain or sprain, a blow, a wound or fall on the side, constipation, excessive exercise of any kind, jarring of the body, overexertion, etc., were among the causes that had been held to produce primary perinephritis. The secondary form might follow infection of any part of the body, and had been seen in all forms of kidney lesion, especially in pyonephrosis, pyelitis, and stone in the kidney, and after operations on the kidney, ureter, bladder, or urethra. It might follow or occur in typhoid and other fevers, in pneumonia, empyema, pleurisy, after ulceration of a stone through the gall bladder or the rupture of an echinococcus cyst.

The first symptom of a primary perinephritis was usually pain, which might be very severe in character. It was most frequently felt in the region of the kidney, near the vertebra. It might be mistaken for neuralgia or lumbago, or extend downward and simulate sciatica. As movements of the body tended to aggravate the pain, the spine was generally held rigid, and it was due to this fact that so many of these cases were mistaken for Pott's disease. When psoas contraction occurred either before or after an abscess had formed, flexion of the thigh resulted, and attempts to straighten the lower extremity caused pain due to tension on this muscle; this pain might be referred to the hip, spine, or pelvis. As the disease was of an inflammatory type, chills or rigors, followed by fever and septic temperature, were among the first symptoms, and were often severe in character. Constipation was the rule, and its causation was variously ascribed to the patient's desire to avoid pain by moving the body, the pressure from the abscess on the intestinal tract, or the pressure on the sympathetic nerves.

The treatment of perinephritis should be based on the conditions met with. If seen early, rest in bed, tonics, laxatives and mild stimulation were indicated. After an abscess had formed, prompt surgical intervention was demanded.

Dr. JACOBI said that constipation was not only a symptom of perinephritis, but also an important factor in its causation, both in the child and the adult. In the latter, the constipation was generally severe and of many years' standing. He could recall only four cases of perinephritis in children.

Diagnosis of Enlarged Bronchial Lymph Nodes in Children.—Dr. ALFRED FRIEDLANDER, of Cincinnati, in this paper, stated that among the phenomena of the developmental period of childhood, there was none more striking, perhaps, than the activity of the lymphatic system. The lymphatic glands constituted an apparatus for filtration. Given the factors of rapid growth on one hand, and of poorly developed powers of resistance on the other, it could readily be seen that the period of childhood must necessarily be accompanied by marked reactive irritation and inflammation of the entire glandular system. During this period, the mucous membranes were prone to irritation, with resulting inflammation. This, together with faulty conditions of hygiene and development, not infrequently taxed the filtration system to its utmost capacity. From the nature of things, we should expect to find inflammation of the tracheobronchial glands to be enormously common. The three groups of these glands, the tracheal, the tracheobronchial, and the peribronchial, intercommunicated freely; they received the lymphatics of the trachea and bronchi, the lungs and the pleuræ, and were directly connected with the mesenteric lymphatic nodes. Simple adenitis of the glands was very frequently only the precursor of a far more serious tuberculous involvement. There could be no doubt that many cases of enlarged bronchial glands tended to recovery, without subsequent tuberculous infection, but the danger of such infection was always present.

One of the early symptoms suggestive of enlarged bronchial glands was a peculiar, paroxysmal cough. This cough resembled that of pertussis, excepting that there was no crowing inspiration. The paroxysms were often very violent and exhausting, and might end in vomiting. The attacks occurred more frequently at night. Dyspnœa on even slight exertion, without demonstrable cardiac lesion, was frequently present. The appetite was capricious; the child was not well nourished and was usually anæmic. There might or might not be an afternoon rise of temperature. Hoarseness, more or less constant, was often noted.

Dr. R. B. GILBERT, of Louisville, said that these bronchial lymph nodes were probably enlarged, to a greater or less extent, in every case of bronchitis, pneumonia, and especially of measles. In every case of persistent cough following measles, which was not relieved by the usual cough remedies, the speaker said he gave full doses of potassium iodide with excellent results. This condition was most often met with in patients with a syphilitic or scrofulous diathesis.

The Importance of Early Aural Examination in Acute Diseases of Children.—Dr. JAMES F. MCKERNON, of New York, in this paper, emphasized the importance of frequent otoscopic examinations during the acute diseases of childhood, so that the presence of any pathological condition might be early recognized and treated. In young children suffering from the acute exanthemata, an aural complication should be looked for each day. In a large number of cases there was no symptom pointing to an aural condition until after the damage had occurred—namely, a spontaneous rupture, with destruction of a portion of the drum membrane, which might easily have been avoided had otoscopy been practised frequently. Ear complications should also be looked for in acute gastrointestinal conditions, pneumonia, grippe, acute follicular amygdalitis, and typhoid fever.

Dr. Herman Jarecky, of New York, said that in connection with the acute exanthemata, children who suffered from adenoids were particularly liable to middle-ear complications on account of the imperfect drainage. In typhoid fever, the aural condition was probably so frequently overlooked on account of the general apathetic condition of the patient.

Dr. Samuel Walker, of Chicago, said there was nothing more important in the treatment of children than the routine and thorough examination of the ears. Otitis media could simulate almost any disease of childhood.

Dr. Samuel McC. Hamill, of Philadelphia, said that among seven cases of typhoid fever in his wards at the hospital, three were complicated by otitis media.

Dr. Louis Fischer, of New York, said that in his experience, the temperature in connection with middle ear suppuration, especially when occurring in the course of the acute infectious diseases, was peculiar, and a rather uncertain guide.

Dr. S. W. S. Toms, of Nyack, N. Y., reported an instance where cleansing the nose of a child that was suffering from purulent rhinitis was followed by double otitis media.

Dr. Thomas S. Southworth, of New York, thought that a certain number of patients with infectious diseases would develop an otitis media, whether the nose was irrigated or not. The number would probably be reduced rather than increased by carefully cleansing the nasopharynx, where absorption of infectious material was so apt to occur.

Dr. McKernon, in closing, said he never used a spray or douche in the nose or nasopharynx. He advocated paracentesis in every case of bulging of the drum, and in a certain number of cases he would make the incision without waiting for the bulging.

Some Physical Signs in Infants and Children Not Sufficiently Emphasized.—By Dr. Samuel McClintock Hamill and Dr. Theodore Le Boutillier, of Philadelphia. This paper contained the results of a systematic examination of the hearts and lungs of infants in the Out-Patient Department of the Howard and Polyclinic Hospitals, of Philadelphia, and showed important variations in the anatomical structures in the child as compared with those in the adult.

The Management of Hernia in Infancy and Childhood, With Results of Operative Treatment.—By Dr. William B. Coley, of New York. The speaker expressed the opinion that in the treatment of hernia in infancy and childhood the truss should be tried up to four years of age, and rarely after that. It should be put on as soon as the hernia was discovered, and worn day and night. In cases which the truss failed to correct, or where strangulation occurred, or where the hernia was irreducible or associated with hydrocele, an operation should not be delayed. Dr. Coley said that he invariably chose the Bassini operation, using kangaroo absorbable sutures and doing a transplantation of the cord. Before 1896, which was prior to the use of rubber gloves, suppuration occurred in four per cent. of his cases: since that time it had been less than one per cent.

Chorea.—Dr. W. C. Hollopeter, of Philadelphia, said that the treatment of chorea that he had found most satisfactory was the hydropathic, which he described as follows: The child was placed in a bath at a temperature that would prove no shock or surprise to it; from 90° to 98° F. was usually satisfactory. The bath could be prolonged for one or two hours, and given twice daily, the whole body being submerged, excepting the head and neck. At least ten minutes of the time could be profitably devoted to gentle, superficial massage of the arms, legs, and trunk. Dr. Hollopeter said he had treated forty or fifty cases by this method, with the result of shortening the duration of the attacks from three months to six weeks.

Diseases of Children Occasioned by Affections of the Nose: The Necessity for Recognition and Treatment.—In this paper Dr. Louis J. Lautenbach, of Philadelphia, stated that children were great sufferers from obstructions of the nostrils. They were very prone to diseased conditions affecting the nose and occluding the passageway. The mischief thus occasioned was common, and unfortunately often very serious to the life of the child, as well as to its health. Along the respiratory apparatus, amygdalitis, pharyngitis, laryngitis, and patricularly bronchitis and pneumonia, were commonly so caused—in great part by the mouth breathing. Stomach and intestinal disorders were frequent results of nasal disease. Nervous affections and lack of mental and physical development were by no means unusual. General lack of vitality and that indefinable something called a general cold were frequent resultants. Lack of development of the dental arches and irregularities in tooth formation, as well as placement could very often be traced directly to nasal disease; the widespread mischief thus caused lasting often throughout life. An impartial, unbiased examination would nearly always develop a satisfactory diagnosis. The connection between the secondary conditions and the primary cause might not at first be clear, but when once understood, the local and general treatment could generally be instituted harmoniously, and the effective results would more than repay for the difficulties encountered. Fortunately, nasal troubles in children were easily cured, as a rule.

A Study of a Case Conjoining Myxœdema and Diabetes Mellitus was the title of a paper by Dr. August Adrian Strasser, of Arlington, N. J.

The following officers of the section were elected for the ensuing year: Chairman, Dr. John Lovett Morse, of Boston; vice-chairman, Dr. William E. Darnall, of Atlantic City; secretary, Dr. J. Ross Snyder, of Birmingham, Ala.; member of the House of Delegates, Dr. W. C. Hollopeter, of Philadelphia.

Book Notices.

Medical and Surgical Report of the Presbyterian Hospital in the City of New York. Vol. VI. January, 1904. Edited by Andrew J. McCosh, M. D., and W. Gilman Thompson, M. D.

The present volume includes seventeen papers on medical and surgical subjects by members of the staff of the Presbyterian Hospital. The publication in a single volume of such papers as these, which are similar to those published in the best class of medical journals, while collating some of the literary work of the hospital physicians, seems open to the criticism that they reach a restricted circle of readers. The volume is well prepared, except that there is no index, and several of the papers are well illustrated.

Modern Ophthalmology. A Practical Treatise on the Anatomy, Physiology, and Diseases of the Eye. By James Moores Ball, M. D., Professor of Ophthalmology in the St. Louis College of Physicians and Surgeons. With 417 Illustrations in the Text and Numerous Figures on 21 Colored Plates, nearly all Original. Philadelphia: F. A. Davis Company, 1904. Pp. 820. (Price, extra cloth, $7.00; half morocco, $8.50.)

This is an exceptionally complete and authoritative presentment of our present knowledge from a viewpoint of wide experience and unusually thorough study of ophthalmological literature. The author and his collaborators are to be congratulated on having supplied the medical profession with a practical treatise, which is also, because of its completeness, a valuable book of reference. The illustrations in color, as well as the black and white reproductions of original drawings, are above the average in clearness and instructiveness. Besides the chapters on diseases and treatment of the various structures of the eye, there are excellent special articles on muscular anomalies, errors of refraction, hygiene, microscopical examination of the eye, ocular manifestations of nervous disease, and preparation for ophthalmic operations. The index, which gives names of authors quoted, as well as topics, is the last, but not least, valuable feature.

Uric Acid. An Epitome of the Subject. By Alexander Haig, M. A., M. D. Oxon., F. R. C. P., Physician to the Metropolitan Hospital, and the Royal Hospital for Children and Women. Philadelphia: P. Blakiston's Son & Co., 1904. (Price, $1.00.)

The author states that this little work has been prepared in response to requests from many members of the profession for a short statement, that could be placed in the hands of friends or pupils, to give an idea of the significance in clinical medicine of uric acid in the organism.

The physical properties and peculiarities of uric acid and its effects on the circulation and metabolism are briefly reviewed, though exception might be taken to the positiveness of the author concerning certain physiological and pathological problems that are still *sub judice*.

The effects of uric acid derivatives are considered in chapters on the circulation group and on the arthritic group of food poisonings. The author advises that the prevention of trouble due to food poisoning by uric acid is to feed youth on milk, fruit, and nuts, and older subjects on bread, milk, cheese, bread stuffs, dried fruits, fresh fruits, vegetables, and nuts.

The book will continue in some the erroneous impression that uric acid is the principal and essential cause of most forms of self-intoxication.

Medical Diagnosis. Special Diagnosis of Internal Medicine. A Handbook for Physicians and Students. By Dr. Wilhelm v. Leube, Professor of Medicine and Physician in Chief to the Julius Hospital at Würzburg. Authorized Translation from the Sixth German Edition. Edited, with Annotations, by Julius L. Salinger, M. D., Late Assistant Professor of Clinical Medicine in the Jefferson Medical College and Physician to the Philadelphia Hospital. With Five Colored Plates and 74 Illustrations in the Text. New York and London: D. Appleton & Co., 1904.

That there had been six German editions of this work in twelve years confirmed the translator in an early estimate of its value as a textbook and suggested to him the desirability of this translation. He tells us that "the main features of this textbook consist in the explicit differential diagnosis," and the author in his introduction says: "We speak especially of *differential diagnosis,* although, as previously stated, 'differential diagnosis' plays a certain part in every diagnosis, even if not particularly noted by the diagnostician." Thus throughout the book this term is employed, and its use helps to continue looseness of diction by professional writers, for if diagnosis does not "differentiate" (in the sense of distinguish) a symptom complex from any other that may have more or less similar symptoms, it is not a diagnosis, but rather what the author refers to as a "misdiagnosis (*Fehldiagnose*)."

While the introduction emphasizes the paramount necessity of a thorough knowledge of physiology and of pathology to enable the physician to understand the relations of the various morbid phenomena in any disease, and thus formulate the diagnosis, it does not seem to indicate clearly the methods by which the student should learn to group the symptoms presented and develop an accurate method of thinking and of arriving at a diagnosis.

The subject matter begins with the diagnosis of heart disease, and in succession the diagnosis of diseases of the various organs and viscera, of the blood, of metabolism, and of the infectious processes are described.

The section on diagnosis of the diseases of the heart has a want that is noted throughout the book —there is no description of the different methods of auscultation and percussion and of the use of those instruments that are employed in clinical work. Nor, except a few sphygmograms, which have the legend "case of," etc., are there any illustrations. The only illustration in the section on diseases of the lungs is of Curschmann spirals with Charcot-Leyden crystals. Certainly there are other subjects equally deserving of illustration, and a textbook for the use of students should, it seems to us, be very liberal in this matter.

Characterization of the varieties of jaundice as *retention icterus* and *aspiration icterus* seems open to criticism, especially as the first named includes jaundice due to obstruction, while the second is the result of a marked fall of blood pressure in the liver vessels. The table of symptoms for the diagnosis of diseases of the liver is well arranged.

The author refers to the fact that he was the first to demonstrate what he designates unfortunately as physiological albuminuria, that is, an albuminuria that occurs within the normal function of the kidneys. While he warns the reader that the diagnosis is difficult and should always be made with caution, this warning is not heeded by the practitioner, and many have known patients who were told that this was their condition, and death some years subsequently from nephritis or renal complication in typhoid fever, pneumonia, or some other acute infection proved that the supposed physiological albuminuria was an indication of impairment or inadequacy of the renal function.

The translator's work has been done carefully and he has added sections on Dercum's disease, yellow fever, dengue, Malta fever, plague, and leprosy. The work is one that will be particularly useful to the practitioner and the advanced student.

Transactions of the American Röntgen Ray Society. Fourth Annual Meeting, Philadelphia, Pa., December 9 and 10, 1903.

This is a well edited and well printed volume of two hundred and sixty pages, illustrated by a number of skiagraphs of the thorax (for medical diagnosis), the lumbar region (for renal calculi), and the teeth. It contains a complete working description of the technics of dental skiagraphy, including the development of the films used in making these pictures, valuable suggestions as to renal skiagraphy, and the collective experience of operators who have suffered from x ray burns. The operator is, of course, exposed several times every day, and the painful experiences here recorded emphasize the fact that one must remember and guard against that danger. In the paper referred to and in the discussion elicited by it the opinion was expressed that there gradually developed in the operator an increased susceptibility which was finally shown by the sudden appearance of trouble. To prevent this, one member of the society recommends that the operator wear a suit made of x ray proof rubber cloth. It seems to us, however, that the trouble is not due so much to an acquired susceptibility as to an acquired sense of security. For instance, the temptation to look at one's hand through the fluoroscope to test the quality of the light from the x ray tube is very strong, and, as this is done repeatedly without bad effects, one may get into the habit of doing so many times a day. Finally there may come a day or two during which several difficult body pictures have to be taken, and shortly thereafter the operator suffers from an x ray dermatitis of greater or less severity and extent.

The volume contains a list of the three hundred members of the society and the papers read at the annual meeting, together with the discussions of the same. While it does not record any notable discovery, it presents many valuable practical points regarding x ray technics and the increasingly important subject of Röntgen therapy.

A System of Practical Surgery. By Professor E. VON BERGMANN, M. D., of Berlin; Professor P. VON BRUNS, M. D., of Tubingen, and Professor J. VON MIKULICZ, M. D., of Breslau. Volume II. Translated and Edited by WILLIAM T. BULL, M. D., Professor of Surgery, College of Physicians and Surgeons, Columbia University, New York; and CARLTON P. FLINT, M. D., Instructor in Minor Surgery, College of Physicians and Surgeons, New York. Surgery of the Neck, Thorax, and Spinal Column. New York and Philadelphia: Lea Brothers & Co., 1904. (Price, cloth, $6.00; leather, $7.00; half morocco, $8.50.)

The prompt appearance of Volume II promises well for the early publication of the entire series, and ought to dispel any doubt in the mind of the hesitating subscriber that the first volume may be out of date before the last one is printed.

The thorough and masterly articles covering the surgery of the neck, thorax, and spine, contributed by v. Bruns, Erhardt, Hofmeister, Jordan, v. Angerer, Kümmel, Riedinger, v. Eiselsberg, and Henle, have been translated with the same care as was evident in the first volume, and such other matter has been added to them as a new American edition calls for. The work is not in every particular, however, as complete as so recently edited a treatise on practical surgery should be. Thus, in the articles on surgical diseases of the lungs, we find no reference to the recent efforts of Sourbruch and others in the direction of intrathoracic operations under negative pressure. (There are passing references to the employment of partial anæsthesia in order that coughing may distend the lungs.) Again, there is not a word concerning the use of the x rays in the treatment of ulcerating or recurrent cancer of the breast, although a page is devoted to other methods of dealing with "inoperable" mammary carcinoma.

Much praise is due for the selection of illustrations. Many of them are borrowed from various foreign sources and many from recent American publications, e. g., the textbooks of Brewer and of Koplik. Again we must deplore the omission of bibliographical references—a fault that may be, in part, amended by their publication as an appendix to the series.

Beitrag zur Pathologie und Therapie der Pankreaserkrankungen, mit besonderer Berücksichtigung der Cysten und Steine. Von Privatdocent Dr. PAUL LAZARUS, Assistent der I. medicinischen Universitäts-Klinik zu Berlin. Erweiterter Sonder-Abdruck aus der *Zeitschrift für klinische Medicin.* Mit 17 Figuren im Text. Berlin: August Hirschwald, 1904.

This monograph is an excellent example of the recent work produced by the German laboratories. The historical introduction begins with Hippocrates and extends to the present day, not forgetting to mention Virchow's gifts to pathology in passing. After an introduction on the anatomy of the pancreas, the most frequent anatomical positions and relations of pancreatic cysts are discussed, together with the results of a series of studies on pancreatic lesions produced artificially.

The ætiology, development, and anatomical structure of the cysts, the nature of the cyst contents, and the ferments contained in the fluid are then taken up. The writer is very conservative in the diagnostic conclusions which he draws from the analysis of the cyst contents, and shows that very frequently the ferment action disappears early in the course of the growth, a phenomenon not thoroughly appreciated by most of the makers of textbooks on diagnosis.

A very complete discussion of the pathology and composition of pancreatic calculi occupies a considerable portion of the monograph. The symptomatology and the clinical course of pancreatic cysts and stones in the duct of Wirsung are then considered, and the differential diagnosis between pancreatic cysts and tumors in the upper portions of the abdomen is brought out.

The monograph closes with a section on the treatment of cysts and complicating conditions, such as stones in the pancreatic duct.

BOOK AND MAGAZINE NOTES.

The eleventh edition of *The Extra Pharmacopœia*, of Martindale and Westcott, has been recently issued and a copy is now before us. Since the publication of the tenth edition of this useful publication William Martindale. the originator of the book has died. The present revision is the joint work of his son, W. H. Martindale, Ph. D., and Dr. William Wynn Westcott. By the omission of many of the older drugs and preparations, together with the references to their use, space has been made for the addition of a large number of medicaments of recent introduction, and references to the therapeutic indications and uses of the agents at present employed in treatment are given in greater detail. The crowning feature of this eminently handy little volume is the Therapeutic Index, which is unusually complete and informing. By reference thereto, the name and adult dose of every drug and preparation described in the work can be ascertained. The range of information contained in *The Extra Pharmacopœia* is encyclopædic, the composition, properties, and uses of the numerous preparations pertaining more particularly to hygienic treatment being given, in addition to special monographs on such subjects as water analysis, poisons and their antidotes, surgical dressings and apparatus, and mineral waters. The work is published at 9s 6d by H. C. Lewis, London, W. C., England.

From the Robert Clarke Company, Cincinnati, Ohio, we have received a handy compend bearing the title: *Applied Materia Medica*, a textbook intended for the use of nurses in the hospital training schools, by J. Henry Schroeder, Ph. D., M. D. The book is supposed to embody what a nurse should understand about the various forms of drugs and pharmaceutical preparations, and the author has, we think, succeeded admirably in presenting the characteristics of the drugs, and the chemical and galenical preparations concerning which nurses are expected to know something. The toxicological memoranda are unusually accurate for a book of this description. A good test of the value of a list of poisons and their antidotes is to be found in the treatment recommended for carbolic acid poisoning. The author of the treatise before us gives evidence of being thoroughly modern, for the first recommendation he makes with regard to the treatment of poisoning from carbolic acid is lavage with diluted alcohol, other appropriate remedial measures being indicated. The book is published at $1.25 net; postage, 10 cents extra.

The sixtieth birthday of Professor Robert Koch has been celebrated by a *Festschrift* in the form of a bulky volume of essays, bearing chiefly on research work connected with the theories of infection and immunity, the contributions of his grateful students—*von seinen dankbaren Schülern*. It comes from the press of Gustav Fischer, Jena, and is, altogether, a most noteworthy contribution to medical science. The list of contributors includes R. Bassenge, M. Beck, L. Brieger, H. Conradi, F. Croner, W. Dënitz, v. Drigalski, Frhr. v. Dungern, P. Ehrlich, M. Elsner, E. v. Esmarch, B. Fischer, C. Flugge, C. Fraenkel, G. Frank, P. Froesch, A. Gärtner, G. Graffky, E. Gotschlich, H. Hetsch, F. Hueppe, Kartulis, M. Kirschner, W. Kolle, O. Lentz, F. Loeffler, E. Martini, E. Marx, B. Nocht, E. Pfuhl, B. Proskauer, W. Rimpau, R. Ruge, A. Schütze, C. Spengler, Uhlenhuth, Vagedes, A. Wasswemann, E. Wernicke, and E. Zettnow.

BOOKS, PAMPHLETS, ETC., RECEIVED.

The Colorado Medical Journal and Western Medical and Surgical Gazette, March, 1904. Special Tuberculosis Number. 162 extra pages. Denver: Colorado Medical Journal.

The Journal of Hygiene, Vol. IV, No. 3, July, 1904. Edited by George H. F. Nuttall, M. D., Ph. D., F. R. S., Lecturer in Bacteriology and Preventive Medicine in the University of Cambridge, Late Associate in Hygiene in the Johns Hopkins University, Baltimore. In conjunction with John S. Haldane, M. D., F. R. S., Lecturer in Physiology in the University of Oxford; Arthur Newsholme, M. D., F. R. C. P., Medical Officer of Health of Brighton. Published Quarterly. Cambridge: At the University Press. London: C. J. Clay & Sons, and H. K. Lewis. New York: The Macmillan Company. Leipsic: Brockhaus. Bombay and Calcutta: Macmillan & Co., Ltd. [Price, Seven Shillings net.]

Contributions from the William Pepper Laboratory of Clinical Medicine, University of Pennsylvania. (Reprints). No. 4. Philadelphia, 1903.

Miscellany.

Contributions to General Literature by Physicans.—At a recent lecture to the alumni association of the Medicochirurgical College of Philadelphia, Professor Albert H. Smyth said that the members of the medical profession had done more for literature than any others. In the museum of the Norwich Hospital a relic of equal interest to the student of literature or of medicine is preserved. It is the skull of that great master of English prose, the author of *Religio Medici*, Sir Thomas Browne. There is but one great commonwealth of letters and science, and the skull of the illustrious Sir Thomas, of England, rests in a silver cabinet, made and presented for the purpose by his distinguished follower, who has won like far-extended and enduring fame in both professions, Dr. William Osler, of Baltimore.

Professor Smyth referred briefly to the fame in literature of Dr. John Locke, Dr. Mark Akenside, Dr. Oliver Goldsmith, Dr. Smollett, Dr. Moore (of "Zeluco" fame), Dr. Erasmus Darwin (the grandfather of the naturalist), Dr. Moir (the "Delta" of Blackwood's Magazine), and the poets Garth, Blackmore, and Crabbe.

Garth, the speaker said, gave an honorable funeral to John Dryden, and fought a poetical battle with apothecaries in a curious poem entitled *The Dispensary*.

The founder of the Royal College of Surgeons was Thomas Linacre, who was one of the first to introduce "the new learning" into England in 1498, and so to stimulate an interest in Greek literature.

One of the most flourishing colleges of Cambridge University was the foundation of a physician, Dr. Caius, in accordance with whose allegorical design the gates of the college are named Humility, Virtue, Honor and Wisdom. Sir Hans Sloane, a physician, was the actual founder of the British

Museum, and within our own memory the great fortune made by the illustrious Richard Quain has been dedicated to the endowment of professorships of English literature at University College, London.

Even out of patent medicines have come some notable books and institutions. Dover's powders gave us *Robinson Crusoe,* for it was their inventor, Dover, the buccaneer, who took home Alexander Selkirk to the gaping wonder of Great Britain. Holloway's pills founded Holloway College for Women, with $2,000,000 for the buildings and $1,500,000 for the endowment. Parr's life pills, sold by Herbert Ingram as compounded from the very prescription that kept old Parr alive and merry to the age of 152, resulted at last in the *Illustrated London News.* The brilliant author of *The Service of Man, The Life of Gibbon,* etc.—James Cotter Morison—owed his exceptional opportunities for literary study to his judicious father, the eponymous creator of Morison's pills! Mindful of these things, and with echoes of Dr. Brown's *Horæ Subsecivæ* and Dr. Warren's *Ten Thousand a Year,* of Dr. Holmes's *Elsie Venner,* and Dr. Mitchell's *Hugh Wynne,* still in our ears, we can subscribe with hearty good will to the literary fame of the physician.

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Official News.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the week ending August 5. 1904:

Place.	Date.	Cases.	Deaths.
Smallpox—United States.			
Dist. of Columbia—Washington	July 23-30	1	
Florida—At large	July 23-30	13	
Illinois—Chicago	July 23-30	5	
Illinois—Danville	July 23-30	1	
Illinois—Springfield	July 23-30	3	
Iowa—Clinton	July 16-30	4	
Louisiana—Baton Rouge	July 23-30	3	
Louisiana—New Orleans	July 23-30	1	Traced to importation.
Michigan—At 78 localities	July 16-23	Present.	
Missouri—St. Louis	July 23-30	2	
Nebraska—Omaha	July 23-30	2	
New Jersey—Jersey City	July 17-24	2	
New York—New York	July 23-30	1	
Pennsylvania—Johnstown	July 23-30	1	
Tennessee—Nashville	July 23-30	1	
Washington—Tacoma	July 18-25	2	
Wisconsin—Milwaukee	July 25-30	1	
Smallpox—Foreign.			
Austria—Prague	July 2-16	8	
Austria—Vienna	July 9-16		1
Brazil—Bahia	July 2-9	8	
Brazil—Rio de Janeiro	June 12-26	304	124
China—Hongkong	June 11-18	1	1
France—Paris	June 9-16	9	2
Great Britain—Leeds	July 16-23	6	
Gt. Britain—Newcastle-on-Tyne	July 2-9	23	
Great Britain—Nottingham	July 9-25	20	
Great Britain—Sheffield	July 2-9	2	
India—Calcutta	June 18-July 2		2
Italy—Palermo	July 2-16	11	2
Mexico—City of Mexico	July 10-17	2	3
Peru—Arequipa	June 18	Epidemic.	
Russia—Moscow	June 25-July 9	29	7
Russia—Odessa	July 9-16	1	
Russia—St. Petersburg	July 2-16	9	2
Russia—Warsaw	June 18-25		34
Spain—Barcelona	July 10-20		9
Turkey—Beirut	July 9-16	Present.	
Turkey—Constantinople	July 3-17		9
Yellow Fever.			
Brazil—Rio de Janeiro	June 12-26	6	3
Costa Rica—Limon	July 17-23	1	1
Ecuador—Guayaquil	June 29-July 13		13
Mexico—Coatzacoalcos	July 9-16		1
Mexico—Merida	July 10-23	9	
Mexico—Tehuantepec	July 10-23	10	7
Mexico—Vera Cruz	July 16-23	3	
Cholera.			
China—Hongkong	June 11-18	3	3
India—Calcutta	June 18-July 2		39
Persia—Teheran	June 25-July 9	300 deaths daily.	
Turkey in Asia	June 28	481	852
Turkey—Bahrein Islands	May 1-June 1		1,500
Plague.			
Africa—Cape Colony	June 18-25	1	1
Africa—Durban	May 28-June 4		2
Africa—Johannesburg	June 5-12	1	
Brazil—Bahia	July 2-9	5	2
Brazil—Rio de Janeiro	June 12-26	3	3
China—Amoy	June 4-25		45 Estimated.
China—Canton and vicinity	June 2	Increasing.	
China—Hongkong	June 11-18	53	52
Egypt	June 18-25	36	16
Formosa	June 11-25	178	129
India—Calcutta	June 18-July 2		31
India—Karachi	June 26-July 3	1	1

Public Health and Marine Hospital Service:

Official List of the Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the Public Health and Marine Hospital Service for the seven days ending August 4, 1904:

BAHRENBURG, L. P. H., Assistant Surgeon. To assume command of service at Delaware Breakwater Quarantine, relieving Passed Assistant Surgeon C. H. Lavinder. August 1, 1904.

BANKS, C. E., Surgeon. Granted leave of absence for one month and fifteen days from August 12th.

BRICE, J. W., Acting Assistant Surgeon. Granted leave of absence for thirty days from September 20th.

FOSTER, J. P. C., Acting Assistant Surgeon. Granted leave of absence for thirty days from August 1st.

FOSTER. M. H.. Passed Assistant Surgeon. Granted leave of absence for fourteen days. August 4, 1904.

GREENE, J. B., Passed Assistant Surgeon. Upon the return of Assistant Surgeon H. McG. Robertson, relieved from duty at New York (Stapleton) and directed to proceed to Fort Stanton as inspector of unserviceable property. Upon completion of this duty to remain at Fort Stanton and await further orders. July 30, 1904.

LAVINDER, C. H., Passed Assistant Surgeon. Relieved from duty at Delaware Breakwater Quarantine, and directed to proceed to New York (Stapleton) and report to medical officer in command for duty and assignment to quarters. August 1, 1904.

NEVES, GEORGE, Pharmacist. Granted leave of absence for thirty days from August 27th.

PORTER. J. Y., Sanitary Inspector. To proceed to Havana, Cuba, for special temporary duty. and to inspect the disinfecting steamer *Sanator.* July 27, 1904.

PURVIANCE, GEORGE, Assistant Surgeon General. Granted extension of leave of absence from June 20th to June 30th, inclusive.

ROGERS. EDWARD. Pharmacist. Granted leave of absence for sixteen days from August 5th.

SALMON. T. W., Assistant Surgeon. Granted leave of absence for seven days from August 2, 1904, under paragraph 191 of the regulations.

SPRAGUE. E. K., Passed Assistant Surgeon. To report to Surgeon G. W. Stoner. Immigration Depot, New York. for duty. July 29, 1904.

STUART, A. F., Acting Assistant Surgeon. Department letter of June 22nd. granting Acting Assistant Surgeon Stuart leave of absence for thirty days from July 1st, amended to read twenty-one days.

TROTTER. F. E.. Assistant Surgeon. Granted leave of absence for ten days from August 5th.

TROXLER. R. F., Pharmacist. Granted leave of absence for thirty days from September 5th.

Board Convened.

Board convened to meet at Port Townsend, Washington, for the physical examination of candidates for Second Assistant Engineer in the Revenue Cutter Service. Detail for the board—Passed Assistant Surgeon J. H. OAKLEY. chairman. Acting Assistant Surgeon W. E. PATRIE, recorder.

Promotions.

Assistant Surgeons T. B. McClintic, Joseph Goldberger, and W. A. Korn, commissioned (recess) as passed assistant surgeons to rank as such from July 28, July 27, and July 27, 1904, respectively.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending August 6, 1904:

Grunwell, A. G., Surgeon. Ordered to the *Dixie.*

McDonnold, P. E., Passed Assistant Surgeon. Commissioned passed assistant surgeon, with rank of lieutenant, from July 2, 1904.

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending August 6, 1904:

Appel, Daniel M., Lieutenant-Colonel and Deputy Surgeon-General. Promoted deputy surgeon-general, with rank of lieutenant-colonel, from August 3, 1904.

Bevans, James L., First Lieutenant and Assistant Surgeon. Granted twenty days' leave of absence.

Dutcher, Basil H., Captain and Assistant Surgeon. Upon being relieved at Fort Hancock, N. J., will proceed to Fort Apache, Ariz., and report to the commanding officer of that post, for duty.

Gardner, Edwin F., Lieutenant-Colonel and Deputy Surgeon-General. Retired from active service as lieutenant-colonel, August 3, 1904.

Godfrey, G. C. M., Captain and Assistant Surgeon. Relieved from duty at Fort Apache, Ariz., to take effect on September 1, 1904, and ordered to proceed to New York city and assume the duties of attending surgeon and examiner of recruits, and medical superintendent of the Army transport service.

Jean, George W., First Lieutenant and Assistant Surgeon. Ordered to proceed to Fort Wadsworth, N. Y., for temporary duty.

McCulloch, C. C., Jr., Captain and Assistant Surgeon. Upon being relieved at New York city, will proceed to Fort Hancock, N. J., and report to the commanding officer of that post for duty.

Raymond, Thomas U., Major and Surgeon. Detailed to represent the Medical Department of the United States Army at the meeting of the American Röntgen Ray Society, St. Louis, Mo.

Winter, Francis A., Major and Surgeon. Promoted surgeon, with rank of major, to date from August 3, 1904.

The following named medical officers have been detailed for duty with troops on the field exercises at the Ranche del Encinal, San Luis, Cal.: F. C. Baker, First Lieutenant and Assistant Surgeon; Benjamin J. Edger, First Lieutenant and Assistant Surgeon; William P. Kendall, Major and Surgeon; Irving W. Rand, Captain and Assistant Surgeon; E. P. Rockhill, First Lieutenant and Assistant Surgeon; William Stephenson, Major and Surgeon; Albert E. Truby, First Lieutenant and Assistant Surgeon; Robert N. Winn, First Lieutenant and Assistant Surgeon.

Births, Marriages, and Deaths.

Born.

Carpenter.—In West New Brighton, Staten Island, N. Y., on Wednesday, August 3rd, to the wife of Dr. D. N. Carpenter, United States Navy, a son.

Parker.—In San Francisco, California, on Monday, July 25th, to the wife of Dr. Edward G. Parker, United States Navy, a son.

Married.

Brock—Johnson.—In Tallapoosa, Georgia, on Wednesday, July 27th, Dr. Walter B. Brock and Miss Jeannette M. Johnson.

Hartman—Graham.—In Baltimore, Maryland, on Monday, August 1st, Dr. George A. Hartman and Miss Agnes Graham.

Lindley—Levering.—In Baltimore, Maryland, on Saturday, July 30th, Dr. Arthur Field Lindley and Miss Elinor W. S. Levering.

Middlekauff—Harbaugh.—In Waynesboro, Virginia, on Tuesday, July 26th, Dr. George W. Middlekauff and Miss Anna M. Harbaugh.

Moore—Loughlin.—In Long Island City, N. Y., on Wednesday, August 3rd, Dr. John Patrick Moore and Miss Katheryn Cecelia Loughlin.

Oram—Fichter.—In Rockaway, New Jersey, on Tuesday, August 2nd, Dr. Joseph Hubbard Oram and Miss Edith Beach Fichter.

Sauer—Bogle.—In Chicago, Illinois, on Wednesday, July 27th, Dr. H. Edward Sauer and Miss Nellie Delia Bogle.

Schlapp—Converse.—In London, England, on Saturday, July 30th, Dr. Max G. Schlapp, of New York, and Mrs. Grovene Vail Converse.

Webb—Hayes.—In Colorado Springs, Colorado, on Saturday, July 30th, Dr. Gerald B. Webb and Miss Varina H. Davis Hayes.

Willard—Rowe.—In Roxbury, Massachusetts, on Wednesday, July 27th, Dr. Frederick Buell Willard and Miss Isabelle Florence Rowe.

Died.

Aderhold.—In Macon, Georgia, on Saturday, July 30th, Dr. J. J. Aderhold, in the thirty-ninth year of his age.

Brown.—In Washington, D. C., on Thursday, August 4th Dr. Orlando Brown, in the seventy-eighth year of his age.

Castle.—In Los Angeles, California, on Friday, July 29th, Dr. A. B. Castle, in the eighty-sixth year of his age.

Chabert.—In Asbury Park, New Jersey, on Tuesday, August 2nd, Dr. Romeo F. Chabert, of Hoboken, in the seventy-seventh year of his age.

Cooper.—In Ogontz, Pennsylvania, on Tuesday, August 2nd, Dr. Ralph Lee Cooper, in the seventy-eighth year of his age.

Darnell.—In Huntsville, Alabama, on Friday, July 29th, Dr. W. C. Darnell, in the thirty-sixth year of his age.

Evans.—In Louisville, Kentucky, on Saturday, July 30th, Dr. John L. Evans, in the thirty-ninth year of his age.

Gattis.—In Chapel Hill, North Carolina, on Friday, July 29th, Dr. Robert L. Gattis, in the fortieth year of his age.

Kilpatrick.—In White Plains, Georgia, on Monday, July 25th, Dr. M. M. Kilpatrick.

McConnell.—In Liberty, N. Y., on Monday, July 25th, Dr. J. C. McConnell, of Washington, D. C., in the sixtieth year of his age.

McLaren.—In Detroit, Michigan, on Thursday, July 28th, Dr. W. R. McLaren, in the fifty-fifth year of his age.

McSimpson.—In Chicago, Illinois, on Saturday, July 30th, Dr. John McSimpson, in the fifty-first year of his age.

Milbank.—In New York, on Thursday, August 4th, Dr. Robert Milbank, in the sixty-seventh year of his age.

Morrison.—In Cochranville, Pennsylvania, on Tuesday, July 26th, Dr. John W. Morrison, in the ninety-fourth year of his age.

O'Flaherty.—In Hartford, Connecticut, on Sunday, July 31st, Dr. John O'Flaherty, in the sixty-third year of his age.

Okie.—In Berwyn, Pennsylvania, on Saturday, July 30th, Dr. Richardson B. Okie, in the fifty-fifth year of his age.

Newton.—In Boston, Massachusetts, on Monday, August 1st, Dr. A. W. K. Newton, in the sixty-ninth year of his age.

Rehling.—In Waterloo, Illinois, on Thursday, July 28th, Dr. William Rehling, in the twenty-seventh year of his age.

Rising.—In Greenwich, Connecticut, on Wednesday, August 3rd, Dr. J. Converse Rising, in the eighty-seventh year of his age.

Thomason.—In Atlanta, Georgia, on Friday, July 29th, Dr. T. L. Thomason.

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Original Communications.

THE MANAGEMENT OF GENITAL SORES.*

By E. WOOD RUGGLES, M. D.,

ROCHESTER, N. Y.

I have chosen a homely title for this paper and the subject matter may seem more homely still, but its importance has been enforced upon me by seeing so much trouble caused by careless diagnosis and mistaken treatment, that if any suggestions I may make lead to more care and especially to more deliberation in the management of these cases, the purpose of my paper will have been fulfilled.

Probably every specialist feels much the same about his own line of work, but it does seem to me very doubtful if there is another class of cases so frequently neglected and mismanaged as that of venereal diseases. It appears to be the general theory that, because a person has contracted a disease to which such stigma attaches, the physician is justified in not bothering himself much as to its exact diagnosis, treatment or ultimate and permanent cure. Such patients are likely to be the last to be referred to a specialist when the diagnosis is doubtful or the progress of the case bad.

The subject of sores on the genitals is one deserving far more attention than it receives. The most frequent course, when a patient calls presenting a papule, erosion, vesicle, pustule, ulcer or scab on the penis or labia, is to make a dead sure diagnosis at once, and, after prescribing the treatment supposed to be indicated, to dismiss the case from one's mind. The results of this course mean often a ruined life, either through the destruction of the general health or through the wrecking of the nervous system.

If the diagnosis is one of hard chancre the sore is cauterized and the patient put on specific treatment at once, without waiting for the other confirmatory and really diagnostic symptoms to develop. The result of this too often is that the case is hopelessly obscured, at least for a long time, by the failure of the roseola and other secondary symptoms to develop. Many patients, believing themselves, therefore, to be cured, give up treatment early and thus subject themselves to greatly increased danger of severe late secondary and tertiary lesions and the parasyphilitic diseases, tabes and general paresis. The physician himself is often confused and, becoming doubtful of his diagnosis, does not insist on the continuance of treatment for the requisite length of time.

It is a well established fact that the great majority of cases of tabes and paresis have failed to receive a thorough course of treatment early in the disease; in fact, so slight have been the early symptoms in many cases, that the patients have entirely forgotten ever having contracted a venereal disease. And the melancholy feature of these cases is that, when tabes or paresis has manifested itself, specific treatment is, in the vast majority of cases, absolutely useless, and temporary palliation of symptoms is the best that we can accomplish; whereas, early in the disease, it is effective and certain in its results.

Another class, and a large one, of patients treated in this manner never had syphilis at all. Many of these patients, believing in the omniscience of their physician, are rendered syphilophobes and their lives poisoned to the end by constant worry over their fancied condition, and by the fear of tainting their offspring with hereditary syphilis. Every symptom, of whatever nature, is attributed to the presence of the dreaded disease. It is almost impossible to break up permanently the vicious circle of thought of these patients, and they lead a most wretched existence. Personally, I would much prefer to treat the most pronounced case of syphilis and am far more confident of a successful result.

Then there is the class of patients where the diagnosis of chancroid is made. The physician, relying on his first judgment, dismisses the case from his mind as soon as the sore is healed, unmindful of the fact that even hard chancres heal in a few weeks, whether the treatment is good or bad, or even under no treatment at all. The secondary eruption of syphilis (roseola) is so pale in color and so insignificant in appearance that patients rarely discover it themselves, even when warned to be on the lookout for it, and practically never without such warning. In fact, I recently had brought to me by a competent physician a patient on whom I had diagnosticated a chancre as probably specific at a former consultation two months' previously, and advised the beginning of specific treatment immediately upon the appearance of a roseola. Neither physician nor patient had recognized any eruption, and yet there was a fading roseola present of probably three or four weeks' standing. Such cases are likely to go on months or years before the diagnosis of syphilis is made, the chance of successful treatment being thereby greatly diminished and the risk of tabes and paresis proportionately increased.

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* Read at a meeting of the Rochester Pathological Society, Rochester, January 7, 1904.

When seen very early syphilitic sores are often confounded with herpes progenitalis. Here, in particular, the exercise of proper care and deliberation will soon clear up the case. Individual herpes lesions very rarely last more than a few days (though a fresh crop may arise), do not increase greatly in size, and, unless some over zealous physician has cauterized them, do not become indurated. Their shape is also characteristic, being very irregular, while hard chancres are round or oval in form. Herpes, like venereal warts, is a filth product, and rarely occurs except after venereal disease or under redundant foreskins with decomposing smegma.

When hard chancres occur on the skin of the pendulous portion another error may arise. In many cases they become quickly covered with a scab, and losing their characteristics entirely, resemble any one of several lesions—eczema, impetigo, contagiosa, herpes, ecthyma, etc. On being softened by a lotion or ointment the scab is readily detached, leaving a characteristic chancre, but it is quickly reproduced.

Chancres of the female genitals are still more misleading. If on the labia majora, external to the mucocutaneous junction, their behavior is much like that of chancres on the penis, though even here they are generally smaller and less noticeable. When within the line of contact of the genitals, their appearance, feeling and general characteristics are entirely different. Owing, probably, to their being more or less constantly bathed in moisture, there is little or no induration, very little contrast in color with the surrounding tissues, and their appearance in general is decidedly innocent. Indeed, in a very large proportion, probably one quarter or one third, of the cases where the examination of a woman who is the source of syphilitic infection can be made, it is impossible to find a chancre at all. This is due to the insignificance of the lesion, the ease of its concealment at the bottom of one of the numerous folds of the mucous membrane, the poor light, and the impossibility of satisfactory palpation of any suspicious looking area between the thumb and forefinger. This probably accounts for the practical non-existence, or rather non-discovery, of chancres of the vagina, only a few cases being on record.

Hard chancre of the cervix is considered a rare affection, but this is probably due to its location. In a series of 249 cases of genital chancres in women, collected by Fournier, it was found in over 5 per cent. Its discovery is rare because it causes no symptoms and therefore is not searched for. In addition, it is not very noticeable in appearance and it is impossible to recognize induration of the base, both on account of the normal hardness of the cervix and because of the difficulty of accurate palpation.

A prostitute whom I examined, who had just infected one of my patients with both gonorrhœa and syphilis, had not the slightest erosion or papule or trace of scar or even induration on the external genitals, vagina, or cervix so far as I could discover. Nevertheless, there was a pronounced roseola on the abdomen. There was also no discharge from the urethra, even on milking it, and only the average amount of non-purulent cervical discharge. On scraping the urethra with a platinum loop, however, unmistakable gonococci were found to be present. It is, therefore, necessary to be still more careful with genital sores in women than in men, and to be on the lookout for secondary symptoms in every such case, since the primary lesions present so little which is characteristic.

All this discussion is preliminary to the setting forth of what, in my judgment, is the only safe course to pursue in the management of genital sores, namely to regard them all with suspicion, to exercise the greatest reserve in forming your opinion and in expressing it to the patient; in fact, to hold them all as guilty (in respect of syphilitic infection) until they are proved innocent.

On the other hand, it is almsot equally important to refrain from instituting general specific treatment until the diagnosis of syphilis is confirmed by the secondary symptoms.

It is my invariable practice to refuse to make a final diagnosis of genital sores when first seen. If there is only a papule or erosion, I tell the patient that it may be anything—that there is nothing to distinguish a syphilitic sore at its commencement from soft chancre or herpes, or even an ordinary pimple, and that the correct diagnosis is a matter of too enormous importance to run any risk of error. The development within the next week will generally make one fairly sure of one's diagnosis, but absolute certainty can only be obtained by keeping track of the case for some time.

If there are multiple vesicles or irregularly shaped erosions which began as vesicles, and which heal in a few days, and especially if there is a history of repeated attacks of herpes progenitalis, the patient may be discharged. He should, however, be warned to return if a sore develops later on the site of any of the lesions, as they are very receptive to syphilitic virus.

If the sore is a soft chancre it will increase rather rapidly in size, eating out the surrounding tissues and forming a relatively deep ulceration, of rounded or oval form, generally painful, with steep edges, looking as if they had been cut out by a punch. The bottom is irregular, " mouse eaten " in appearance, grayish yellow in color, and covered by a sort of false membrane and broken down tissue. There is often a disagreeable odor, which is characteristic, though hard to describe. Unless cauterized there is no induration of the base. If bubo occurs, it is single and large, not multiple and small, as in syphilis, and its hardness is inflammatory, binding it down to the surrounding tissues, instead of being shotty and freely movable as in syphilis.

In no case, however, is it safe to be satisfied with the diagnosis of soft chancre, even when the lesion heals promptly. In my experience uncomplicated chancroid, among a good class of patients, is a comparatively rare affection. Fully one half of the cases which were apparently soft chancre, seen in my private practice, and a large proportion of the cases which I have seen diagnosticated as such in hospital and dispensary work, when kept track of later, have afterward often, after perfect healing of the original sore, developed characteristic hard chancre on the site of the primary lesion. There is very frequently a simultaneous infection by syphilitic virus and a pus-producing germ. The incubation of the latter is very short and an ulcer appears in from two to four days, which runs the course of chancroid and heals, only to break down again later into a hard chancre. Multiplicity of lesions does not form a guarantee, since multiple hard chancre is not infrequent. Fournier cites the case of a wet nurse with 23 hard chancres on the two breasts.

If the sore is syphilitic it will increase slowly in size, remain painless and indolent in character (unless phimosis or paraphimosis renders it phagedænic), and take on one of three forms, viz., erosion, ulceration, or indurated papule. At the same time a certain amount of induration of the base will develop. This varies from the consistency of bone or cartilage to a thin, barely perceptible layer called parchment-like, which is apt to escape notice unless the chancre is pinched up with care laterally between the thumb and forefinger.

The duration of the incubation is of great diagnostic value. Every sore which appears ten days or later after coitus and does not heal in a few days, should be regarded with the greatest suspicion and the patient kept under observation until the time during which a roseola could develop, say ten or twelve weeks, is past.

The presence of enlarged, shot-like, isolated, freely movable glands in one or both groins is also valuable confirmatory evidence. In one of my cases, however, there was never any appreciable lymphatic enlargement in the groins, though it was marked in the cervical and brachial regions. These enlarged glands are not conclusive evidence, even in connection with a genital sore, for they are enlarged in many normal individuals, especially those who are on their feet a great deal. The cervical, and especially the brachial, glands are more reliable, although these may be enlarged without the presence of syphilis.

Much the most reliable single sign of syphilis is the roseola. Upon its appearance, following a chancre, a positive diagnosis of syphilis may be made and specific treatment begun. The venereal trinity, an indurated ulcer, multiple, shotty, enlarged glands in the groins, and a roseola ensuing in from five to ten weeks after the first appearance of the ulcer, are the three requisites to the earliest possible certain diagnosis of syphilis. In the first and second the most careful observer may be mistaken. Given the three, an error is impossible.

Fournier remarks: " No matter how expert and experienced a physician may be, he never has the certitude of avoiding error if he forms his judgment from the presence of one isolated symptom. An isolated symptom can always deceive and should always be regarded with caution, while mistake is impossible if we look for, in all cases, an *ensemble*, a series of symptoms, a pathologic evolution."

It is well to be on the lookout for the roseola after five weeks from the commencement of the chancre, and to examine the patient at least once weekly until the danger limit is over, say, from ten to twelve weeks. I have known the roseola to fail in but one case—a girl with a severe form of icthyosis of the whole body and limbs. A pigmentary syphilide of the neck, enlarged glands, mucous patches, etc., established the diagnosis in this case. An intercurrent universal erythema—as, for example, scarlet fever or measles—might mask the eruption, but such cases would be extremely rare.

As mentioned above, this eruption is very easily overlooked. As a rule it is quite general on the lower half of the body, less marked on the chest, inner surfaces of arms and thighs, and faint or absent on the legs. Rarely it covers the whole body, including the face. Its color is at first a very light rose red, which disappears on pressure. Later, the color deepens, and exudation having occurred, some staining remains after pressure. Certain secondary syphilides take on a more pronounced color, that of raw ham or even of copper.

The macules are generally not elevated and scale very slightly, if at all. They vary in size from a coffee bean to a hazel nut and are rounded, oval, or irregular in shape. They often disappear in two or three weeks without treatment, and the eruption is more readily overlooked on this account.

Hyde says about the roseola: "It is often unnoticed by the patient, whose attention may first be called to it after its recognition by the skilled eye of another. In some cases these markings of the skin surface are very indistinct, requiring for their recognition the closest scrutiny in a clear light, and occasionally, even then, leaving uncertainty in the mind of the expert."

Failure to diagnosticate an existing roseola often occurs on account of insufficient exposure of the patient, whether through modesty or carelessness, and examination in a poor light. It is my custom to make the patient strip completely if a man (if a woman from the breasts to the pubes) and to place them in the best light attainable. At the inception of the roseola the contrast with the surrounding skin is brought out more sharply if it is observed through a piece of cobalt blue glass.

It is to be diagnosticated from the exanthemata by its appearing first on the abdomen and rarely on the face, and by the absence of general symptoms, except perhaps a slight fever; from medicinal rashes it is distinguishable by the lack of itching and its less general distribution.

The history of an initial lesion and the presence of some of the other signs of syphilis, such as general enlargement of the glands, crusts of the scalp, looseness of hairs, mucous patches, headache, bone or muscle pains, etc., will also generally furnish confirmatory evidence.

As to the treatment of genital sores a few words will suffice. In general, the simpler it is the better. One cardinal principle is to cauterize no such sore with silver nitrate or other caustic that produces induration, until all doubt about diagnosis is removed. Otherwise the diagnosis is obscured and patients may be condemned unnecessarily to a long term of debilitating treatment as well as to the pangs of syphilophobia.

Only a few weeks ago a patient of mine applied Tyree's powder pure, contrary to advice, to an erosion which thus far had seemed like herpes. An induration, indistinguishable from that of hard chancre, formed, and as the sore was over two weeks in healing, and enlarged inguinal glands were present, he was obliged to wait for a favorable diagnosis till the roseola period was over.

If I believe a sore to be soft chancre, unless it is at the meatus, I cauterize it very thoroughly with carbolic acid and try thus to destroy all the germs at once. After this any one of several antiseptic drying powders is applicable. Iodoform is unquestionably the best, but its odor excites at once the suspicion of venereal disease, so that europhen or bismuth formic iodide had better be substituted. Ordinary black wash is also a very satisfactory remedy.

In the treatment of herpes, cleanliness and dryness are the most important factors. Frequent washing with mild antiseptics (*e.g.*, dilute liquor plumbi subacetatis) and the application of a powder composed of one part of salicylic acid to 100 of starch on a thin layer of cotton, placed under the prepuce so as to separate the two mucous surfaces, will cure most cases quickly. In recurrent herpes connected with a redundant prepuce where cleanliness is really unattainable, circumcision should be practised as soon as the lesions can be healed. The foreskin should be cut short so that little, or better none, of the glans remains covered.

Contrary to what one would expect, it matters little in the treatment of hard chancres whether specific local treatment is used or not. Tepid water is about as good a dressing as anything, though an ointment of calomel and cold cream or lanolin is more agreeable, because it does not adhere to the sore. It should be applied on a layer of absorbent cotton and renewed two or three times daily, after careful cleansing of the parts with tampons wet in warm water.

The so-called abortive treatment of syphilis by excision of the whole chancre, formerly vaunted as a sure cure if done early, has been pretty well abandoned. When no secondary symptoms appear, it is safe to assume that the excised chancre was not syphilitic. Given the coincidence of an abrasion of the skin or mucous membrane and the contact of pus containing the yet undiscovered germ of syphilis, it is doubtful if even immediate excision of the parts would abort the disease. Its poison seems to be as rapid in its action as that of snake-bite or of glanders. A horse has been inoculated with glanders and the parts deeply excised one minute afterward. The disease occurred, nevertheless, at the end of the ordinary period of incubation.

A case in point is that of a young man who came to me one morning with tears in the sulcus caused by intercourse with a prostitute nine hours previously. I cauterized them deeply with carbolic acid, chiefly to avoid soft chancre. They healed promptly, but he came down with gonorrhœa three days later, and three weeks afterward hard chancres appeared on the site of each of these tears, followed by the usual manifestations of syphilis.

One word of advice aside from my subject, viz., do not let your zeal for your patient's welfare lead you to institute general specific treatment until your diagnosis is absolutely confirmed by the appearance of the roseola or other characteritic secondary symptoms. The few weeks' delay will do the patient no harm and you may be saved from a false diagnosis with the consequences detailed above.

Lest it be thought that I overestimate the risks of carelessness in the management of these cases, let me relate an experience of last April. I was called to one of the Rochester hospitals to meet three other physicians and settle a disputed diagnosis. A prominent young citizen, married, had come to his family physician, a regular of high standing, the September previous, to consult him about a large sore on the skin of the pendulous portion of the penis. He denied extramarital intercourse. The physician made the diagnosis of herpes and did not prohibit sexual intercourse, which was indulged in. His wife was five months pregnant at this time. The sore was five or six weeks in healing, and later recurred. Afterward the husband had a marked jaundice (which is a rare symptom of secondary syphilis, as reported by Professor Simionescu, of Bucharest, in *Presse médicale*), and following it an eruption which the physician attributed to the icterus.

Another physician, a homœopathist, confined the wife in February of a rather puny infant, which, as I learned later, had snuffles and some excoriations about the anus soon after birth and gained very little in weight during the first two months of its life.

At about this time the husband began to develop sore throat, which later became very severe and ulcerated. The homœopathist diagnosticated the case as diphtheria, and a culture therefrom was declared diphtheritic by the board of health.

Fortunately for the family, a throat specialist now saw the case and declared it one of syphilis. The two other physicians disputed the diagnosis strenuously, and I was called in as a last resort. The man showed a fading roseola, enlarged glands everywhere, and characteristic mucous syphilides of the mouth and throat. Under appropriate treatment he improved rapidly and left the hospital in a few days.

Two weeks later the homœopathist asked me to call to see the baby, which he had not hitherto suspected of also being syphilitic. I found a weazened, sickly infant, which had snuffles, a copper colored rash on the body, face, and extremities, the epiphyses at the elbows and knees swollen and tender on pressure, the legs incapable of being extended without pain and the look of a " little old man," which is so characteristic of hereditary syphilis.

Infection of the ovum not having occurred at conception, must necessarily have taken place through active syphilis of the mother. On examination she was found to be also suffering from syphilis, though in a milder form.

It needs no comment of mine on the peculiarly unfortunate results of carelessness in the management of this case. The family might have been protected and a healthy infant born, instead of this caricature upon humanity. Although at present the whole family is in good health (the baby at nine months weighed 17 pounds) the end may not be yet. It is possible for the child to develop tertiary lesions at any time up to fifteen or sixteen years of age, which would disfigure it for life. And the apprehension of such a result by the parents, unfortunately too well read on the subject of syphilis, adds another painful feature to the affair.

I will leave the subject here with the recital of this history to point the moral of my paper.

THE BEST METHOD OF OPERATING TO EFFECT A RADICAL CURE OF SENILE HYPERTROPHY OF THE PROSTATE GLAND: BASED ON THE STUDY OF 150 RADICAL OPERATIONS.*

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(*Concluded from page 296.*)

The mortality of prostatectomy varies, ranging between five per cent. and twenty-five per cent., the death rate being placed between fifteen per cent. and eighteen per cent. Within the last three years this death rate has been very much reduced; at the present time, in the hands of an experienced surgon, the mortality should not, in *selected cases*, be over 5 or 6 per cent. The reasons given for the discrepancy in the mortality is the fact that the death rate varies according to the age, the physical condition of the patient, the length of time that the obstruction has existed, the size and character of the growth, and the presence of other complications. In feeble old men, broken down in health and with poor resisting powers, in whom the symptoms caused by obstruction have existed for a lengthened period, the gland having assumed large dimensions, it will be found that the death rate will range between 15 and 25 per cent. It was in this class that Vignard found that only in six out of thirty-seven operations was the normal function of the bladder restored after operation. In a series of 133 prostatectomies recounted by Belfield, a complete cure was effected in less than 25 per cent. Very different results may be expected if cases are properly selected. In order that the operation may be successful and the prognosis favorable, the patient should be in a fairly good physical condition; he should undergo the operation before the gland has assumed enormous proportions, and before serious secondary complications have arisen. In these cases it will be found that the mortality will range between 5 and 7 per cent. In patients far advanced in years, with long standing disease of the prostate gland, in whom a chronic cystitis has existed for years with secondary changes in the structure of the bladder, it has been found that, even after complete removal of the gland, the patients are unrelieved. These patients are only fit for suprapubic drainage.

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* Read before the New York Academy of Medicine, December, 1902.

The most satisfactory method of any that we have attempted or seen employed by other operators, is the modification of the Alexander operation, advocated by Bryson. We have performed this mode of operation in thirty-one cases and have found that the claims set forth by him are fully verified. Ninety-five per cent. of the cases of hypertrophy of the prostate gland can be reached by median perineal incision. We have never found it necessary to employ either the inverted "Y" or transverse perineal incision, suggested by some authorities. The gland can be excochleated, as a rule, by means of the index finger, in from seven to fifteen minutes, with little or no loss of blood and but slight shock; the recovery is usually uneventful. The patients are up and around in about ten or twelve days. The only instruments required for the operation are a scapel, a grooved urethral staff, half a dozen hæmostatic forceps, Allis's dry dissector, a small pair of lithotomy forceps, a pair of scissors, and a uterine dilator. Some writers assert that it is impossible to remove a small hard fibrous prostate without dissecting away the entire prostatic urethra. This statement is true, and has been found necessary with us on five occasions, but in every instance recovery was uninterrupted and a new urethra was formed without any difficulty. The only modifications of the Bryson technique that we have found of advantage, is that, after incising the membranous urethra, a uterine dilator is passed into the prostatic portion of the canal and the parts thoroughly dilated. This relaxes the anterior leaflet of the triangular ligament, thus permitting the gland to be brought well down into the wound, so that it is easily accessible and can be readily enucleated. In those cases in which the growth is of large size, projecting backwards into the bladder, the upper portion of which cannot be reached through a perineal incision, a suprapubic cut may be made down to the bladder without opening the viscus; through this opening an assistant's finger is inserted, by means of which the gland can be pushed down into the perinæum. As soon as the operation is completed, the wound in the abdominal wall is closed by means of a couple of sutures. After operation we have found it beneficial to drain, not only by means of a soft rubber perineal tube, but also by a soft rubber catheter passed into the bladder through the urethra. The former is removed on the third day, but the catheter is left *in situ* until the new urethra is formed, thus avoiding the danger of the formation of a perineal fistula. In two instances in which a silver perineal drainage tube was employed, a rectourethral fistula formed on the eighth day after operation. Sloughing followed pressure caused by the presence of the tube. The soft rubber tubes are just as efficacious as the metal instruments, and have the advantage of causing less pain and tendency to the formation of fistula.

The advantages of the Bryson method of operating, over that advocated by other authorities, are: No special instruments are required; the gland is removed by means of a small incision; but a short time is required in order to perform the operation; the quantity of blood lost is minimized and the shock to the patient is less than that of other methods; there is less danger of the formation of a rectourethral fistula; the period of convalescence is shorter.

Those who advocate some one of the other methods of operating, by means of an extensive dissection of the perinæum, assert that the operation when so performed is more surgical; that the operator has the advantage of seeing what he is doing, instead of working in the dark; that bleeding vessels can be seen and ligated. Unfortunately, the advantages just enumerated are more theoretical than practical. Special instruments are required; the extensive dissection necessary in order that the various steps of the operation may be seen, occupies a much longer time than the Bryson method; more blood is lost; the shock is greater, and the administration of the anæsthetic prolonged. There is more danger of injury to the rectum giving rise to a rectourethral fistula. When we recollect that individuals requiring prostatectomy are usually advanced in years, it becomes evident at once that the lowest mortality will be found on the side of the surgeon who adopts the former, rather than the latter, mode of operating. That the danger of the formation of a rectourethral fistula is a real one becomes apparent on consulting the recent literature on the subject, where it will be found that this unfortunate accident has occurred in quite a number of cases. In this respect the suprapubic route has the advantage of the perineal method; as so far this accident in conjunction with the high operation is unknown.

Recently it has been asserted by several writers, that if the technique suggested by them is adopted when performing perineal prostatectomy, the gland can be enucleated without injury to the ejaculatory ducts. This is cited as one of the great advantages of selecting the perineal route. Curiously enough, Fryer makes the same claim for his suprapubic method of excochleation.

It is stated that injury to the ejaculatory ducts gives rise to not only sterility, but impotence, the last condition being the important one to avoid.

We believe that those who affirm that they can resect the prostate gland by any known method without injury to the ejaculatory ducts should be classified as well meaning, but misguided enthusiasts. It is well known that the course pursued by the ejaculatory ducts in the normal prostate gland is by no means uniform; varying very considerably in different specimens. Hence, no definite rule can be given to the surgeon, which will serve as a guide to prevent his injuring those structures during operation. When the organ is distorted by hypertrophy it will be observed that in most instances the position of the ducts deviates very materially from the normal position; so that it is impossible to locate them, consequently injury to these structures is bound to occur when the organ is enucleated.

It is believed that impotence following prostatectomy is not caused by either wounding or resecting the ejaculatory ducts; but that it is due to the injury inflicted on the glandular structure of the prostate, thereby destroying its intimate relations with the entire nervous system. When we reflect that the prostate gland is supplied by large nerves derived from the hypogastric plexus of the sympathetic, the sacral plexus of the spinal nerves, and through the lumbosacral trunk with the lumbar plexus, the conclusion is readily reached that the organ is in intimate connection, not only with the component parts of the genitalia, but through the agency of the free interchange of fibres between the sympathetic and the cerebrospinal system of nerves, with remote parts as well. It is easy to comprehend how the severing of the connection of such an important nervous mechanism could readily result in sexual debility. Clinical evidence teaches that in injury or chronic inflammatory disease of the prostatic urethra, especially when the caput gallinaginis is involved, the individual is often impotent, but not sterile. Cases of chronic disease of the prostate gland, in which the ejaculatory ducts and seminal vesicles are healthy, in which sexual debility is a marked symptom, are constantly met with. Such individuals, however, are not sterile. All are familiar with cases in which the ejaculatory ducts have become permanently blocked by means of inflammatory exudate, such patients being sterile, but sexually vigorous. Senile hypertrophy of the prostate gland is a disease of advancing years; the sexual vigor in those so afflicted is either on the decline or in abeyance, consequently any surgical interference with the prostate gland in cases of the kind would be likely to result in sexual exhaustion.

Experience has shown that it matters little whether the entire prostatic urethra is removed in conjunction with the gland or not. Most operators concede, however, that it is wisest, if possible, to attempt to leave the roof of the prostatic portion of the canal intact, as the experiments of Inginni show (*Centralblatt für Chirurgie*, 1899, No. 6) that the urethra possesses the power of almost complete regeneration from a stump which has been felt behind, and that the part of the canal which is regenerated is the mucosa and the cavernous body, the muscular structure not participating in the regeneration. Our own experience verifies these observations. In most of the cases, the prostatic urethra was extensively injured by the necessary manipulation in removing the gland. In each instance the urethra was reestablished.

From a review of the results obtained in the 150 cases herein recounted, we believe that the following deductions are justifiable:

1st. A routine method is not applicable to the treatment of prostatic hypertrophy; every case is a law unto itself, and the treatment will depend on the various conditions presented in each individual case.

2nd. The dangers attendant on the daily catheterism are greater than those of a radical operation performed at the onset of the symptoms caused by the obstruction.

3rd. The proper time to perform a radical operation is reached as soon as it becomes necessary for a patient to resort to daily catheterism.

4th. The gratifying results obtained by a number of the operations in many cases demonstrates that the Bottini operation is one of great surgical value. It is applicable to a large percentage of cases; which, if properly selected, has proved to be the safest and best method of relieving an obstruction caused by prostatic hypertrophy. In those cases in which a stone in the bladder is associated with a prostatic enlargement, litholapaxy may be performed in conjunction with a galvanocautery prostatotomy.

5th. In skilful hands, properly performed, the Bottini operation can no longer be classed as "unsurgical;" "a blind operation attended by profuse hæmorrhage and severe complications;" "attended by a large mortality;" "the results being only temporary."

6th. A complete prostatectomy is justifiable if performed early, before the individual is broken down in health and secondary complications have supervened. In early operation the results are most satisfactory, recovery rapid, the mortality varying between five per cent. and seven per cent.

7th. In complete prostatectomy in feeble elderly patients with long standing obstruction and secondary complication, the prognosis is grave and the mortality ranges between fifteen per cent. and eighteen per cent. If the bladder in these cases happens to be hopelessly disabled, the results obtained by the operation are negative. Cases of this description are only suitable for suprapubic drainage.

8th. In ninety per cent. of all cases the gland can be readily removed by means of a median perineal incision. The perineal operation recommended by Bryson is considered the operation of choice.

9th. Complete suprapubic prostatectomy is shown to be more dangerous than the perineal operation for obvious reasons. A suprapubic prostatectomy is safer if combined with perineal drainage.

10th. Partial suprapubic prostatectomy is indicated in such cases as where a valvelike lobe exists, which interferes with urination, or where there is a partial hypertrophy of one of the lobes. A complete suprapubic and perineal prostatectomy combined is wisest where there is an enormous hypertrophy of the three lobes, especially if the condition is associated with tumor formation projecting well back into the bladder giving rise to a stenosis of the prostatic urethra.

11th. A perineal prostatectomy is best suited for those cases where the enlargement of the lateral lobes has a tendency to progress toward the rectum, to obstruct the urethra, or to project backward into the bladder.

12th. A prostatectomy is always attended with more danger than the Bottini operation, and the convalescence is more prolonged. In suitable cases the latter operation is therefore the one of choice.

Great Infant Mortality is reported from Toronto, Can., and Cleveland Ohio, both towns being situated on the chain of great lakes.

THE FINSEN LIGHT TREATMENT.*

By ROLLIN H. STEVENS, M. D.,

DETROIT.

Since Finsen announced his famous "light" treatment for lupus some eight years ago, there has been much activity on the part of medical men and manufacturers to produce a cheaper and less complicated apparatus which should accomplish the almost perfect results Finsen has secured, more quickly, with less supervision, and at less expense than the original Finsen apparatus. The result to-day is that, following the example set by Europeans, the Americans have produced "Finsen lamps" of "greatest efficiency," galore, until almost every up to date office has a so called "Finsen outfit." Some of these lamps have more or less merit, and are constructed on scientific principles, so that they are valuable accessories for the more superficial treatments; but others have little to recommend them. The result of it all is that there is much misunderstanding as to the true nature of the genuine Finsen light, and as to what it will accomplish. Reports of Finsen light treatment given with apparatus of other construction all lack, so far as the author is aware, the features necessary to secure the most marvellous cures which are noted in the Finsen Institute, at Copenhagen.

It is frequently asserted that the efficient agent of the Finsen light is the ultraviolet ray, the equally important blue and violet rays appearing to be left out of consideration in many of the discussions noted in the literature, as well as in the construction of the various lamps for the purpose of improving upon or imitating the Finsen.

This misconception is probably accounted for from the fact that Finsen, in his earlier work, believed that the blue and violet rays alone were the bactericidal rays, "while," he says in his first communication on the subject, "there was some divergence of opinion respecting the ultraviolet rays." But, later, he confirmed the researches of Widmark, and proved that the ultraviolet rays were the most bactericidal, and that the inflammatory effects of light were due to the "rays of greatest refrangibility;" that, of these, the blue and violet were sufficient alone to produce such an action, "though," he adds, "their action was much weaker when they were used alone than when their influence was enhanced by the addition of the urtraviolet rays." And this is the secret of the Finsen treatment. Consequently he constructed his apparatus with the largest quartz crystal lenses that could be procured, consistent with expense, and, with a light source (the carbon arc) so arranged with regard to tension and amount of current and composition of carbon, as was found by most careful experimentation to produce a light, the richest possible in blue, violet, and ultraviolet rays, consistent with elimination of heat, in order to concentrate upon the skin the largest practical number of the combined actinic rays.

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* Read before the National Electrotherapeutic Society, at Niagara Falls, June 20, 1904.

No one worked harder to produce a cheaper and more practical apparatus than did Finsen himself and his assistants. The result was the invention of the Bang lamp, an instrument with water-cooled iron electrodes, the light of which was very rich in ultraviolet rays; a type of lamp which has been modified in various ways by Kjeldsen, Reiniger, and André and Broca Chatin ("Dermo-Lampe"). Soon after, there appeared the Lortet-Genoud lamp—an instrument with a carbon arc as a light source, the light of which is placed much nearer the patient than that of the Finsen apparatus, and is not concentrated, the quartz crystals being very much smaller than in the Finsen. The London Hospital lamp of Dr. Sequeira is a modification of this, and it is in quite common use. Perhaps next to the Finsen apparatus this is the most effectual of all. In this country there are several lamps of this type manufactured. A later type still is the condenser spark lamp introduced by Görl. This lamp, like the carbon arc, is rich in ultraviolet rays, but not in the blue and violet. Of course there is no concentration. Piffard, of New York, modified the Görl lamp by substituting three spark-gaps. Recently Piffard has placed another phototherapeutic lamp on the market, which has iron electrodes in a very small compass, is very cheap and convenient; but is, of course, very superficial in its action.

After much experimentation with these various types of lamps Finsen says, "these lamps seemed in the beginning to promise well, but have not answered our expectations. They have, however, taught us that closer investigation is needed as to the power of the different kinds of rays to penetrate through heat, and that it will be of little use to work further on new lamps until this question is cleared up. The lamps we now use are constructed for the purpose of lighting, and not for the purpose of producing inflammation and killing bacteria."

Leredde and Pautrier, after much clinical and laboratory experience with many of the later lamps, have concluded that the original type of lamp, as devised by Finsen, gives the most satisfactory results, its power of penetration being greater; and, that while they have had fairly good results from the Lortet-Genoud lamp, they have found that the twenty minute exposure advised as sufficient with this lamp is not long enough, but, that better results are secured by exposing for one hour, just as is held necessary for treatment with the original Finsen apparatus. The reason for this will be explained later.

Dr. Bie has shown that the blue and violet rays can penetrate deeply into the skin, but only when it has been made bloodless; and the ultraviolet rays can, under no circumstances, penetrate deeper than the superficial layer of the skin, but they give rise to dilatation of the blood vessels, which may persist for months.

Jansen found that the rays from the soft iron, water cooled electrodes, such as characterize the Bang type of lamp, were very rich in ultraviolet rays with wave length of about 322 micromillimetres; that they were strongly inflammatory; but, also, strongly absorbable, so that a thin layer of agar or gelatin protected the bacteria in perceptible degree from the action of these rays. When a plate culture of *Bacillus prodigiosus* in agar was exposed to the rays from such a lamp, he found that the time necessary to kill the bacteria increased sixty-four times; while, with the intervention of a skin layer, ½ mm. thick, between such a light and the bacteria, there was very slight action on the germs after an hour's exposure. Substituting the Finsen apparatus for the iron lamp, other conditions being the same, the bacteria were killed after nine or ten minutes exposure. The iron electrode lamp required from two to five minutes to blacken chloride of silver paper placed behind the dehæmatized ear of a rabbit; but the Finsen apparatus required less than a second. With both ears in contact, it was not possible for the iron electrode lamp to blacken the paper in five minutes, while the Finsen did it in less than from six to ten seconds. Thus is demonstrated the much greater penetrating power of the real Finsen light.

But, in spite of this test, it has been frequently asserted that these iron electrode lamps are much more effectual than the Finsen, requiring only fifteen or twenty minutes to accomplish what the Finsen light requires an hour for. But these assertions cannot be proved by either clinical or laboratory experience. Professor Kromayer is one who has made this assertion in favor of the iron electrode lamp, and Gunni Busck has made further experiments which show the absurdity of such statements. He allowed the rays from a Finsen, Bang, and Dermo lamp (the two latter being iron electrode lamps) to fall on the anterior surface of his forearm, where the skin is particularly thin until the minimal (just visible) skin reaction would be produced and the following were the results: Finsen light, eight seconds; Bang lamp, ten seconds; Dermo lamp, forty seconds; which show that the light from the Dermo lamp is five times weaker than that from the Finsen. When, however, he exposed the palm of the hand, where the skin is much thicker, the Dermo lamp failed a number of times to produce a reaction after thirty minutes' exposure, which the writer knows from experience can be accomplished after twenty or twenty-five minutes with the Finsen lamp.

Kromayer sought to improve on the Dermo lamp by using forty-five ampères of current instead of five ampères, as in the original, and by filtering the rays through methylene blue solution, but Busc found that the light from this improved lamp required three minutes to blacken chloride of silver paper, placed behind the bloodless ear of a rabbit, while Finsen light required only from one to four seconds. So Busc rightly concludes that, since the chloride of silver paper is only in slight degree affected by the less refrangible rays, the above experiment shows that the Kromayer light contains sixty times less blue-violet rays that the Finsen light, and that Kromayer obviously underestimates the capacity for the carbon arc light to produce these rays. Similar results from experiments with other sources of light might be quoted, but these will suffice to show the penetration of the Finsen light.

As Busc remarks, it is the use of these so called improvements on the Finsen light in such cases as lupus, epithelioma, and the deeper seated skin lesions, that brings disrepute on the Finsen treatment.

The writer has quoted these experiments because he desires, in justice and fairness to the Finsen treatment, to protest against the common practice of denominating as Finsen lamps any kind of a phototherapeutic lamp, the construction of which may involve only few or none of the principles enunciated by Finsen.

The technique of the treatment is most difficult. When properly carried out, we note immediately following the treatment a circular redness of the skin, and the patient may be conscious of a slight burning or have no particular sensation in the part. After a variable period of from eighteen to twenty-four hours, a circular vesiculation, more or less marked about the red area is apparent. This reaction, in some cases, however, is delayed to forty-eight hours after treatment. The part now feels sore, with a sensation the same as in a sun burn. The vesiculation increases somewhat for a few hours, and then the vesicle dries and crusts over, while the cuticle looks brown and pigmented. After about a week this peels off and leaves a red or pink skin beneath. Many times the peeling is delayed for ten days or two weeks, depending somewhat upon the reaction. Some patients react more strongly than others. For instance one of the writer's patients with a small epithelioma of the nose, with an ulcer about the size of a split pea in the centre, always had very severe reactions. The treatments themselves, which are usually painless, seemed in this case to cause much burning due to the pressure with the compressor. The day following each of the first three treatments the nose and half the face swelled, the eye was closed, burning was intense, and headache so severe that the patient was obliged to take to her bed for several days. By the end of two weeks the reaction entirely subsided and the lesion was much improved. This, however, was a most unusual case, the pain during the reaction being comparatively insignificant.

Burns from the Finsen treatment are rare and unnecessary, being invariably due to carelessness on the part of the operator or the patient. They are unnecessary, because, like any other burn except an x ray or radium "burn," they give the pain of a burn at the time, and this comes on so gradually, that the patient has time to inform the operator, who will find that, from one cause or another, the cone of light from the lamp does not fall simultaneously at right angles on all parts being treated, and this can easily be corrected. The burn, of course, is an ordinary one which heals like any superficial burn, the only permanent damage being a scar.

The length of treatments varies from fifteen minutes to one hour and a quarter. Red birthmarks require but fifteen or twenty minutes, as do also alopecia areata and some eczemas where there is not much infiltration. Most cases of chronic eczemas, however, are cured in one or two half-hour exposures. Psoriasis and lichen planus usually require one hour of treatment, as do also lupus vulgaris and epithelioma, though the two latter sometimes need a quarter of an hour extra. In some cases of lupus erythematosus the treatment has been given by the author for but half an hour, though usually one hour is given by Finsen. Some of the cases treated for just half an hour seemed to do better than those treated a full hour, the longer treatment apparently aggravating the condition.

The question of length of exposure is an interesting one, and the great length of time necessary for the Finsen treatment has been a serious drawback to its use in this country. We have not enough patience in this country; people want the treatment carried out in a hurry.

Naturally, the question is asked, If the Finsen light will destroy bacteria in a few minutes after passing through the skin, why give the treatment for an hour or more? Experience has taught Finsen that this amount of time is required in lupus, in order to secure good results. But why is that our experience?

There has been much discussion of the question pro and con as to whether the curative effects of the light are due to the action of the actinic rays on the bacteria or to the inflammatory reaction set up in the tissue. Freund (12) is of opinion that the destruction of the bacteria is of minor importance, the real curative action being the result of the inflammatory process, a phagocytosis, and he quotes Bang, Müller, Glebowsky, Serapin, and Sack, who sustain him in this view. That the cells of lupus are absorbed as a result of the light treatment has been amply demonstrated by Schmidt and Marcuse (13), who made microscopical sections of the skin and of lupus areas at variable periods after treatment. Sixteen to twenty-four hours after the Finsen treatment, there was engorgement of the blood vessels, a wandering of the polynuclear leucocytes between the epithelial cells, a vesicle beneath the horny layer filled with leucocytes, œdema and degenerative changes of the upper layers of the epidermis and of the epithelioid cells of the lupus nodes. The changes in the epithelia affected only the corneal and granular layers, the papillary layer not being injured, which latter fact accounts for the favorable cosmetic results.

Five days after the last of three treatments of an hour each, five to seven days apart, the blood vessels were observed to be moderately dilated and the epidermis to have been almost regenerated, but a few scattered groups of mononuclear round cells and giant cells found deep in the skin demonstrated the great resistance of these cells against the action of light. The small mononuclear round cells appear to be the most resistant of all the cells of the lupus node, and there is very good evidence that retrograde changes in these cells go on very gradually for several months after the treatment, while the epithelioid cells of the superficial nodes are quickly destroyed after one exposure to the light.

We see the necessity, therefore, for the long exposures. The deeper the disease cells, the weaker is the action of the light, and those cells which we find in the deeper parts of the lesions are more resistant to the light than the superficial cells, hence they must have a longer exposure. The weaker light sources, the light of which is composed largely of the rays of shorter wave length would not affect these deeper-lying and more resistant cells at all.

The cause of the absorption of the cells is probably a direct chemical one, some of the albumens being changed, so that further development of the life cycle of the cell is interfered with, and absorption takes place.

Dreyer (14), of Copenhagen, has recently discovered that he can sensitize bacteria to the action of the yellow and green rays, which alone have been shown to be inert, and Neisser and Halmerstaedt have confirmed these views. Inasmuch as these rays are of so much longer wave length than the so called chemical rays, they penetrate much deeper, even clear through the hand. The writer has tried this method, which consists in the injection of erythrosin, 1 to 1,000, in normal saline solution, two to four hours previous to treatment, but has been disappointed in the results, though there was apparently much improvement at first. It is possible the technique was not properly observed. A very severe inflammatory reaction appeared after such treatment in a case of cancer of the nose and cheek where the infiltration was several times too thick for the penetration of the blue-violet rays of the Finsen light. But the tumor, after two or three such treatments, began to grow much faster than usual, so that the light treatment had to be given up. In some cases of eczema of the hand where the eczematous parts were soaked in the erythrosin solution for ten or twelve hours previous to treatment (no injection being given), the treatment was only given twenty minutes with very satisfactory results, superficial eczematous patches of twenty years' standing disappearing after two such treatments. In psoriasis twenty or thirty minute exposures were not sufficient after applying the erythrosin in this manner, but two or three treatments of an hour each accomplished an apparent cure, though, with its tendency to relapse, the cure cannot yet be pronounced permanent.

When it is considered that cases which do not yield readily to other forms of treatment, and have perhaps been under treatment for many years, can be cured after a few hours' exposure to the Finsen light, this form of treatment does not appear to be too long or too expensive. The action of the light in selected cases is so certain that, if it were not for injuring the precious feelings of medical ethics, one could guarantee absolutely a permanent cure in from a few weeks to a few months. And what is this time compared with the time previously spent in a vain endeavor to secure relief? And this can be done without any danger to the patient, such as is the case with the x ray treatment.

As to a choice between the x ray and the Finsen light, it is the writer's experience that each form of treatment has its indications, though we are not able at this time definitely to outline the same. Lupus is undoubtedly better controlled by the Finsen light than by the x ray, and the Finsen treatment does not consume much or any more time in these cases than does the x ray. On the other hand, epitheliomata and rodents appear to be more responsive to the x ray, though 50 per cent. of selected superficial cases are cured by the Finsen light (15). Many of the cases, however, are too deep to be affected by the Finsen light. The writer has seen chronic eczemas clear up for a short time under the action of the x ray, only to reappear in a very short time. These cases were then treated with the Finsen light with apparently permanent results, though the time intervening (ten months) is yet too short to say positively.

Wine colored birthmarks are speedily and permanently removed by the Finsen light and the treatment of three of these cases has given the writer much satisfaction, not to mention the gratitude and happiness of his patients. The reaction in some of these cases is slower in appearing than in others, not being present sometimes until forty-eight hours after treatment. Then the characteristic vesiculation about the border of the treated spot appears, while the centre becomes brown. After a few days the skin peels off and leaves an area exposed, which is several shades lighter than the original birthmark. This can now be treated again in two weeks, and an additional blanching takes place. If, however, it is not treated again for two or three months, it will be noticed that the spot continues to grow lighter for a considerable period. After a few treatments at intervals of a few weeks or months the redness entirely disappears.

In a case of xanthoma, where there were three growths—one on the lower right lid, and one on each of the upper and lower left lids—one fifty minute treatment was sufficient to remove one of them, while another had two treatments of an hour each, and the third on the upper lid which was more difficult to treat, responded after three treatments of an hour each.

A case of lichen planus of sixteen years' standing on the back of the neck of a young woman was cured after four treatments of an average of ten hours each, an hour being spent on each spot. Of course each treatment was distributed three or four days. This case had resisted all kinds of treatment for a number of years.

The treatment was tried on syphilitic gummata to the thigh, which had resisted antisyphilitic treatment for three years. Broken down gummata with painful ulceration healed kindly when their undermined sloughing borders were treated by the light, dressed with a mineral earth containing much mica and silica and supported by a protective dressing of zinc, gelatin, and lint. Gummata which were not far advanced were almost completely absorbed when the ulcers were healed and treatment discontinued. About three months later, however, the patient returned, stating that the gummata had been increasing in size and giving some pain. The light treatment was given again with the result that on the third day of the reaction, the corneal laver was noticed to be black. This had also been noticed in the former treatments for a period of three or four week after treatment, but it gradually cleared up. This second time, however, it was evident that the gummata would break down, for they were pretty soft, and the gangrenous appearance, at first superficial, gradually grew deeper, until at the end of a week it had broken down completely. The resulting ulcer, however, unlike the former experiences without light treatment, soon showed a healthy base, and healed kindly in about four weeks.

Four cases of rosacea have cleared up under the Finsen treatment. Two of these cases might be dignified with the name of rhinophyma, so great was the hypertrophy of the nose. They have averaged treatment over the entire area five times, an hour to a spot. Shorter treatments were tried, but were not very effectual.

After a year's experience with the Finsen light, and several weeks' experience in the Finsen Institute in Copenhagen, in the London Hospital, with Sequeira, and in Berlin, with Lesser and Lassar, the writer believes that in superficial skin diseases which are suitable for the Finsen treatment these is no more effective and speedily curative agent known to the medical profession, and it is surprising that it has not been more generally introduced into this country. No doubt the original price of the apparatus, together with the cost of maintenance, as well as the long treatments necessary, have caused Americans to go slowly in the matter of installing. But it is certainly well adapted to institutional work, and the expense feature is more imaginary than real, for it is the author's candid opinion that the treatment saves money in the end for the patient, by being so much more certain than any other form of treatment known, and curative in some cases where any other treatment fails utterly.

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THE ÆTIOLOGY AND TREATMENT OF ARTERIOSCLEROSIS.*

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We cannot well combat or prevent a disease unless we know its ætiology, hence I trust the time of this society may not be wasted if a considerable portion of my paper treats of the causes of this insidious disease or condition. Though I offer several suggestions as yet unproved, I hope you will pardon me, as no medical subject to-day is more pregnant with interest than is this.

The symptoms of general arteriosclerosis or arteriocapillary fibrosis and its histopathology we all know, but do we note the premonitory signs of this condition, which, early diagnosticated, can perhaps be often warded off or postponed.

It is agreed that several causes produce the condition of arteriosclerosis, and I wish to suggest a theory as to why these varied causes produce the one condition. It would seem a self-evident fact that in generalized arteriosclerosis the cause must be some irritant circulating in the blood, or some chemical disturbance of the blood, or some changed physical condition of the circulation. Therefore, it must be to modifications of the blood or its pressure that we should look for an explanation.

In the first place, the blood is life, and modification of it means symptoms, and if this modification is not soon corrected the symptoms will persist and death will occur from such modification alone. To prove this statement it is only necessary to mention anæmia, leucæmia, gout, neurasthenia, diabetes, Graves's disease, myxœdema, Addison's disease, acromegaly, and arteriosclerosis.

It is not a diseased organ that causes death, but the absence of the function of that organ, and therefore modification of the blood. It is not the local inflammation from an infection that causes death, but the toxines produced by the infection circulating in the blood. Of course, there may be deaths from accidents in the course of any disease, as from embolism, hæmorrhage, perforation, suffocation, etc., but if we could give new, clean blood to a patient dying from infection the local inflammation would get well.

Now, what is it that makes a man have ever gradually increasing hardening of his arteries as age comes on, and then what makes him have it at a younger age? What is it that raises the blood pressure and increases the arterial tension just as normally after sixty years of age as the bone growth of childhood is normal, the menstruation and virility at puberty, and the menopause at forty-five years? To account for the bone growth of childhood we find the thymus gland working hard up to twelve years of age. To account for puberty we find the ovaries and testicles beginning to functionate and the thyreoid increasing its activity. To account for the menopause we find the ovaries atrophying. Now, what accounts for the increased tension of the blood vessels? Why should we not look for the cause among the organs furnishing internal secretions, viz., the ductless glands? Our investigation should be of the glands furnishing secretions that modify the blood pressure, and if possible to then discover which of these glands change their functions after sixty years of life.

The glands that furnish secretions that modify the blood pressure are six in number, one of which, the thymus, furnishes vasodilator stuff up to the time of the cessation of its function, viz., before puberty. Of the other five glands, two furnish vasoconstricting stuff, the suprarenals and the pituitary, and three furnish vasodilator stuff, viz., the thyreoid, the testicles, and the ovaries. As far as we have yet discovered, the suprarenal glands furnish par excellence the vasoconstrictor stuff for the organism. The circulation of the suprarenal secretion in the blood vessels stimulates the heart and causes the walls of the blood vessels to contract, and if injected experimentally in any large amount the contraction of the blood vessels is enormous and capillary surfaces are blanched. Man and animals cannot live after extirpation of the suprarenal glands, neither can they live when these glands suffer from tuberculosis, i.e., from Addison's disease, and it will be remembered that one of the constant symptoms of Addison's disease is progressively increasing low blood pressure.

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* Read at the annual meeting of the American Therapeutic Society, held in New York.

We now recognize supersecretion of the thyreoid and undersecretion of the thyreoid, and why can we not conceive that the suprarenal glands can also furnish too much or too little secretion, and therefore more or less vasocontracting stuff? Perhaps, yes, probably, many of the cardiac failures in acute infections are due to the action of the toxines on these glands, and not on the heart or vasomotor centers, as so often declared. Also, doubtless, pathologists in watching these glands more carefully will find that they are subject to glandular changes the same as any other organ, and can produce some of the symptoms of unclassified conditions.

I can but believe that many of the causes of shock after laparotomy are due to the disturbed function of the suprarenals, possibly through the injury or manipulations of the sympathetic abdominal nerves. While we recognize the group of symptoms which we term Addison's disease, which means more or less total absence of suprarenal function, we have not taken into consideration the fact that every secretion not only can be decreased or increased homogeneously in all its elements, but can also have certain elements only of its secretion decreased or increased. I believe that the trouble in neurasthenia is that the vasoconstrictor stuff of the suprarenal glands is not properly secreted, although the other elements of this glandular secretion may be normal in amount. This may be a temporary or a permanent condition, just as disturbance of the thyreoid may be a temporary or a permanent condition.

The pituitary gland also furnishes a small amount of vasoconstricting stuff. An extract of the infundibular part of this gland raises the blood pressure and increases the heart action, but not nearly to the same extent as does suprarenal extract. (Howell, *Journ. of Experimental Med.*, Vol. III, No. 2, 1898). This action on the blood vessels is also a peripheral one (Schäfer and Vincent, *Journ. of Physiology*, London, Vol. XXV, September 18, 1899). This gland, situated in the brain, must seemingly furnish some secretion that is necessary to the brain functions, but just what prominence the vasoconstrictor secretion from this small gland has in the blood, which is so well supplied by the two large suprarenal glands, it is impossible to state. We do not even know why the bones grow when the secretion of this gland is increased.

Turning now to the opponents of this vasoconstricting stuff, we find that the thyreoid is the gland that furnishes the greatest opposition. Probably one of the functions of the thyreoid is to dilate the blood vessels (Cyon, *Centralbl. f. Physiolog.*, Leipsic u. Wien, 1897, p. 357) and intravenous injections of the watery extract of the thyreoid lower the blood pressure (Oliver and Schäfer, *Journal of Physiology*, Cambridge and London, 1895, Vol. XVIII, p. 277). It is a clinical fact, which I have many times demonstrated, that the blood pressure can be lowered by administering thyreoid, even in small doses, and a case has been reported where sudden death from heart failure was due to an overadministration of thyreoid (Tidy, *British Med. Journ.*, 1902). In Graves's thyreoid disease, or exophthalmic goître, low arterial tension is a more or less constant symptom, and after fifty, when the thyreoid begins gradually to diminish its secretion, the blood pressure gradually rises, until in old age, when the thyreoid has atrophied, the blood tension is at its highest and arteriosclerosis is in evidence.

The ovaries have also been shown to furnish, at least during their period of congestion, vasodilator stuff (Bandler, *Medical Record*, March 16, 1901). Whether there is any continued secretion of dilator stuff is problematical, this element of the secretion, perhaps, being only periodically elaborated.

The analogues of the ovaries, the testicles, as far as I am aware, have not been proved to furnish a vasodilator stuff, but as they contain considerable nuclein, I think that we are quite justified in believing that their secretion can cause vasodilatation as does nucleic acid. How frequently this sort of secretion enters the blood stream, and what small part it plays in regulating the general vasomotor tension, is not known.

After thus briefly studying the glands that furnish secretions that modify blood tension, we must come to the conclusion that it is the thyreoid that furnishes vasodilator stuff and the suprarenals that furnish vasocontractor stuff, and any marked increase of tension must be due, in the absence of drug stimulation, to a diminution of the thyreoid secretion or an increase of the suprarenal secretion, or to both. The only other hypothesis, it seems to me, must be the possibility of some irritant in the blood either stimulating the vasomotor centers to keep up peripheral contraction, or that some irritant in the blood finally causes a slow going endarteritis, with the resulting arteriosclerosis.

The accepted causes of arteriosclerosis are old age, nervous strain, overeating, the abuse of alcohol, severe muscular exercise, syphilis, chronic lead poisoning, kidney insufficiency, and gout.

There may be too much suprarenal secretion at any age, or too little thyreoid secretion at any age, but old age with its normal high arterial tension is probably due to an absence of thyreoid secretion and the consequent at least relative increase of suprarenal secretion. A man with this increased pulse tension often has, perhaps, for years, good compensating hypertrophy of the heart to overcome this increased peripheral resistance, and Albutt (*The Medical Examiner,* March, 1904) thinks there is also an hypertrophy of the muscular coats of the arteries. Hence, as long as there is this increased power of propulsion of the blood the man has no trouble, but if anything upsets this muscular power he begins to have a sense of fatigue, low spirits, and some sort of general discomfort for which he may see a physician. If we recognize the cause of the trouble at this time and the coming arteriosclerosis and give him proper advice, the disease itself may be postponed for years. He should eat less, drink less, take regulated exercise to get more blood into his muscles and relieve the arteries, take regularly, once in so often, a period of business rest, and perhaps some proper medication. However, these very cases, so used to hypertension as they are, cannot stand large doses of drugs that cause arterial depression without complaining of malaise. This same high tension causes increased kidney activity, and this, plus the toxines absorbed from overeating and drinking, with consequent imperfect digestion, little by little can irritate the kidneys until chronic interstitial nephritis is the outcome. Also, a heart can become incompetent on exertion after years of this permanent high tension, even if arteriosclerosis as such is not discoverable.

Nervous strain is now recognized as a cause of arteriosclerosis, and is a cause that is becoming more and more prominent. Few of us realize the constant tension under which our daily life is lived. Men of large business interests, stock brokers, captains of industry, heads of corporations, lawyers and doctors, with their unceasing appointments, unceasing obligations to meet, and short periods of physical rest, and still shorter of mental rest, all have increased nervous strain and with it increased arterial tension. Blood pressure measurements are shown to be largely increased by the slightest nervous disturbance, mental anxiety, or intense interest. Men of brains who crave alcohol in some form do not want it so much for the momentary stimulant effect as for the vasodilatation which it causes, relieving this hypertension which is making them more nervous. The driver of an automobile against time will not have the dilated heart or the athletic heart that the racing bicyclist has, but he will have arteriosclerosis if he keeps up this nervous tension.

Overeating is accepted as another cause of arteriosclerosis, and may be due to the absorption into the blood of too many toxines from imperfectly digested food, this irritating the blood vessels to contract and finally causing an endarteritis; or can we not suppose that some of these absorbed toxines may irritate the suprarenals to increased action. However, far be it from my purpose to make any statement that increased suprarenal activity is the only cause of arteriosclerosis, but that hypertension is a large predisposing factor.

Alcohol is placed as another cause of this disease, and its causability may be hard to trace. Certain it is that it stimulates the thyreoid gland which gives an increased amount of vasodilator stuff, and the stimulation of this gland is very evident in our exophthalmic goître cases and in hysterical women, and I believe hysteria to be due to disturbed thyreoid secretion. This repeated stimulation may sooner or later cause an atrophy of this gland, and hence a diminution of vasodilator secretion. This is true of every overstimulated organ or gland in the body; it becomes sooner or later, so to speak, worn out. Also, where alcohol has been found to be the only apparent cause of arteriosclerosis, there is also some liver or kidney disturbance, either one of which will tend to raise the blood pressure.

Severe muscular exercise as a cause of arteriosclerosis is not as prominent as it once was when more severe physical labor was needed. Now machinery has displaced a large part of this cause of the disease. But where there is a demand for severe muscular work it is quite probable that there is also a demand made on the suprarenals for extra secretion, and this secretion has been proved a strong muscle stimulant. Also during increased muscular exercise there is increased tension of the peripheral arteries from contraction of the muscles. This slows the blood stream and raises the blood pressure in the rest of the arteries in the body, and this increased pressure, constantly repeated, may alone be the cause of arteriosclerosis.

Syphilis as a precedent of this disease cannot be declared a cause until we have separated its results from the results of the chronic action of mercury. I believe that most metals interfere with the action of the thyreoid gland and that the prolonged action of mercury causes atrophy of this gland, and increased blood tension, and connective tissue formations are the result. In fact, I should here like to state my belief that all drugs which we have classed as alteratives act as such by modifying the secretions of one or more of the ductless glands.

Another cause of arteriosclerosis is chronic lead poisoning, and here again we have a metal that I think in chronic poisoning interferes with the action of the thyreoid, and again we have the suprarenal in full sway, high blood pressure, slow pulse, and connective tissue deposits.

In kidney insufficiency the blood tension always becomes high and arteriosclerosis may occur. This may be due to insufficiency of the kidneys leaving irritants in the blood which cause a slow going inflammation of the arteries, endarteritis, or if a considerable amount of liquid is drunk, or but a small amount of liquid, even water, is drunk, and a not proportionate amount of urine excreted, the blood vessels are overfilled, and the blood tension from this cause alone becomes high. Hence, when there is kidney insufficiency, the approved method of giving large amounts of plain water or medicinal water daily, or even large amounts of milk, I believe often not to be good treatment. Of course, it is many times hard to state whether the disease of the kidney precedes the high blood tension in arteriosclerosis or whether an arteriosclerosis preceded the kidney trouble.

A gouty diathesis is perhaps one of the most frequent causes of increased blood tension, and certain it is that gout is an acknowledged cause of arteriosclerosis. An increase of uric acid in the blood has been proved to be often present in gouty conditions. It has, however, not been proved to be the cause. I am inclined to think that disturbed suprarenal secretion, perhaps an increase of it, which means not only the part of its secretion that increases vasomotor tension, but also all its other ingredients, may be a cause of gout. I have many times held gout in abeyance and prevented its exacerbations by judicious thyreoid medication, i. e., the antithesis in many ways of suprarenal secretion.

Whichever may be the primary cause of arteriosclerosis, whether these above factors just related, or whether the plus tension, certain it is that any treatment of the condition, to be successful, must aim to diminish the high blood pressure. This can be accomplished well by thyreoid extract in small doses if we believe there is evidence of diminished thyreoid secretion, and it must be remembered that any small dosage of iodide or iodides will stimulate the thyreoid gland to greater activity, and hence the long known value of this drug in arteriosclerosis.

If possible, all severe muscular activity and all nervous strain, or anything that tends to increase peripheral tension, should be prevented. Large quantities of liquids, even water, are not often good treatment, as they tend to overfill the blood vessels. A modified, diminished, mixed diet, alcohol—free if possible, without contractor stimulants as caffeine, coffee and tea, spices, or any drug such as strychnine or digitalis, unless there is actual cardiac failure, will give the best results.

The great value of rest, especially mental, must not be forgotten, whether this be a rest for so many hours each day, or a rest of two or three days weekly, or a rest of a month or two annually, certain it is that this increased tension when allowed periods of intermittency may not develop the disease of arteriosclerosis. The moderate use of tobacco after thirty years of age may be of benefit to these hypertension cases rather than otherwise. In the first place, it is a narcotic to the brain, which removes a certain amount of nervous tension; in the second place, it is a vasodilator, and in moderate amount will not weaken the heart. In excessive amount it will precipitate a cardiac insufficiency in these cases.

In cases of arteriosclerosis without kidney or liver lesion, in a patient sixty years of age or more, it is quite possible that small doses of alcohol, especially at night, may cause sufficient vasodilatation to give him some bettering of symptoms that may be present, but this same improvement can generally be caused by nitroglycerin in small doses, even as little as $^{1}/_{400}$ of a grain three or four times a day.

Nothing has yet been discovered, except opium, that will diminish suprarenal secretion if this is in excess, and perhaps you will all deny that it ever is in excess.

It is possible, if I am right, that in the future one of the suprarenal glands might be removed or its artery tied in gout and arteriosclerosis. This will not seem so strange a statement if it is remembered that the thyreoid is now partially extirpated or its artery tied for its hypersecretion or Graves's disease, with increasingly successful results.

TALMA'S OPERATION FOR CIRRHOSIS OF THE LIVER.*

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The establishment of a collateral circulation in cirrhosis of the liver has been thought of since 1877. At this time, Eck performed a series of experiments on eight dogs, trying to graft the portal vein into the inferior vena cava. Seven of these dogs died in a week and the remaining one was lost sight of. In 1892, Hahn and others experimented on sixty dogs with indefinite results. The first operation done on man was by Van der Muelen, in 1889, for Talma; the patient died in a few hours, from shock. The second was by Schelkey, in 1891, for Talma; the patient died of sepsis. From this time up to about the first of this year [1] Greenough, of Boston, had found

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* Read before the Buncombe County Medical Society, Asheville, N. C., December 7, 1903.

[1] L. W. Pearson, *Journal of the American Med. Association*, April 25, 1903, p. 743.

115 cases reported; of these death occurred in 29.5 per cent.; in 40 per cent. improvement resulted, and in 31.5 per cent. there was no improvement. From the percentages given, you can readily see that we could not promise our patients great results from the procedure. However, I believe the future has in store for us more encouragement. The operation is simple enough and should have practically no mortality.

The fact that a mortality of 29.5 per cent. is shown up to the first of this year is conclusive evidence, to my mind, that the operation has been done frequently as a *dernier ressort,* and reflects more upon the prognostic ability of the operator than upon the operation.

The first idea, as I have said, was to establish a collateral circulation, and hence the operation has mostly been done for the relief of the ascites accompanying the cirrhosis, rather than for the cirrhosis *per se.* However, the percentage of cures of the ascites is not very flattering.

Murphy,[2] of Chicago, gives the following statistics: Number of cases, 23; in 30 per cent. of these the patients were dead in fourteen days, in 52 per cent. in two months, in 56 per cent. in six months. Of the late deaths, ascites had returned in practically the whole of them. Thirteen per cent. of the patients may be said to have recovered from the ascites at the end of a year or longer. But it is believed by many not only that this operation will relieve or cure the ascites by helping Nature to establish a collateral circulation, but that this increased blood supply to the liver will make possible the formation of new hepatic cells.

A. G. Nichols[3] says that the liver possesses the power of reproducing "its specific secreting elements and blood vessels," and that this holds good in various degenerative processes, as cirrhosis, as well as in losses of substance from traumatic causes.

Ponfick and von Meister state that from one half to three fourths of the liver can be removed and, although the original shape is not restored, liver tissue is reproduced that serves its purpose adequately.

Edebohls and others are following out this same plan of reasoning when they decapsulate the kidney in chronic Bright's disease and expect Nature, with the increased blood supply, to reproduce the important anatomical and physiological portions of the kidney, and their expectations seem to have been realized. Many of you in your abdominal work have no doubt seen the pedicle of large tumors entirely strangulated by torsion, and yet the tumor has continued to live and grow, through the circulation afforded by adhesions from omentum and others of the abdominal viscera. Nature has a way, unknown to the wisest of our cult, of repairing any kind of tissue that may have been destroyed. In an incised wound of the finger she will repair bone, nerve, muscle, tendon, blood vessel, and skin, all side by side, and all composed of apparently different material; and this process of repair is carried on in all these different tissues through the blood, in conjunction with the cellular elements of the tissues themselves. Cannot Nature, then, under proper conditions, reconstruct the tissues of the liver? I believe so.

The Operation.—The incision is made at different places by different operators, in the median line both above and below the umbilicus. John B. Roberts,[4] of Philadelphia, to my surprise, used a median incision below umbilicus, but had to make a second incision above umbilicus, in order to find omentum, and hence does not recommend the lower incision. It is due him to say that he was only attempting to do an epiplopexy.

The first operators, as recommended[5] by Morrison, made a small incision three inches below the umbilicus, large enough to admit a glass drainage tube, which was left in for purposes of drainage. This was rightly abandoned on account of the imminent danger of infection through tube.

Another incision which commends itself to one's good judgment is parallel to, and near, the right costal cartilages. Were it not for cutting across the muscles and blood vessels, this would be the incision of election, as it would give easy access to the liver, and one could, with great ease, stitch the omentum to the parietal peritonæum over a broad surface as one closed the wound. But the incision I prefer, and the one used in the case I present tonight, is in the right linea semilunaris. After the incision is made, there is still great difference in the methods of the different operators. Some rub the outer surface of the liver, the parietal peritonæum, spleen and intestines with gauze sponges. Others use the curette or sharp probe on surface of liver, spleen, and parietal peritonæum. It seems to me that the irritation produced by rubbing with the gauze sponge should be sufficient, and I prefer to leave the intestines alone, as there is too much shock produced by handling them. Then, after the surface of the liver and peritonæum have been firmly sponged, some operators transfix the liver and abdominal wall with a wide mattress suture. Then the omentum is stitched to the abdominal parietes over a wide area, say from four to eight inches. Some have grafted the omentum between abdominal muscles and some between the muscles and the skin, but simply bringing the omentum into apposition with the parietal peritonæum seems to accomplish all the desired results and is deemed sufficient.

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[2] J. B. Murphy, *Practical Medical Series,* November, 1902, p. 367.

[3] L. W. Pearson, *Journal of the American Medical Association,* April 25, 1903, p. 743.

[4] Dr. John B. Roberts, *Philadelphia Medical Journal,* January 26, 1901, p. 163.

[5] L. W. Pearson, *Journal of the American Medical Association,* April 25, 1903, p. 73.

In suturing omentum, some transfix the abdominal parietes, but this seems to me to give needless danger of infection, and I use three or four stitches taken into or through the obdominal muscles, from within out, but not through the skin. I do not use needles for this purpose, as the others seem to have done, for fear of puncturing the blood vessels, which are very much enlarged, especially the veins, but instead I use a Cleveland carrier. But I agree with Roberts[6] that the omentum should be rolled up into a kind of cord, so as to prevent the stitch tearing through the friable tissue.

All kinds of suture material has been used for this purpose—catgut, silk, and silkworm gut. I consider forty-day chromicized catgut the most desirable. After this the incision is closed according to the fancy of the operator.

The following case was referred to me by Dr. J. W. Walker, of Asheville, to whom I am indebted for the following history:

A. McM., male, mulatto, age fifty-seven years; home, Newberry, S. C.

Family history: Mother and father living and enjoy fairly good health; had a brother, but he died in infancy.

Previous history: Had the occurring diseases of childhood and bore them well. Married at twenty-one years of age; father of four children, two girls and two boys. At the age of twenty-six years he began to suffer from chills and fever for about five or six years. Was troubled with hæmorrhoids, having on an average two attacks within twelve months for three years, lasting from one to three weeks. He also had nasal catarrh for some years.

Personal habits: Drinks tea and coffee, is a meat consumer, smokes and chews tobacco, has a pronounced alcoholic history; bowels irregular; a good sleeper.

Gonorrhœal history, negative.

Syphilitic history, suspicious, although he denies syphilis.

Occupation, a farmer for years; for three years a painter; for four or five years later, a coachman.

Patient came to Asheville about sixteen months ago, and for a while had good health. During the fall of 1902 he began to suffer from pains in the lumbar region, radiating on the right side between the ensiform appendix and the umbilicus; his urine was at times scanty; stools clay colored and constipated; occasionally he was jaundiced; appetite precarious.

On February 2, 1903, patient came to my office, and, on examination, I found a greatly distended abdomen, inclining slightly to the right side. There was marked dyspnœa. The patient said that he had been in this condition for six days. The skin was sallow and he was emaciated.

I at once induced free catharsis and diuresis, but this gave little relief; so that on February 4th, assisted by Dr. J. W. Bryan, I tapped him, drawing from the abdomen eight quarts of fluid. The opening healed up nicely in a few days, and the patient gained strength daily for about three weeks, when the lumbar pains began, which seem to be the forerunner of the returning ascites. On March 2d nine quarts of fluid were drawn off. The patient's condition ran about the same course as before for about four weeks, and on the 29th of March ten quarts were taken. So far Dr. Walker's report.

On May, 1903, I operated on the patient at the Mission Hospital, in this city. Incision in the right semilunaris. We noticed blood vessels very much enlarged, especially veins, and greatly increased in number. The peritonæum was very much thickened and was firmly adherent to the subjacent tissues; the vessels in the peritonæum were much enlarged. The liver was very much atrophied and presented a typical hobnailed appearance. There were some adhesions between the liver and parietes, and for this reason no attempt was made to irritate its surface or to stitch it to the abdominal wall. The omentum was brought up and stitched to the parietal peritonæum for about five inches, at right angles to the incision. Three sutures of chromicized catgut were used, one on either side of the incision and two inches and a half from it. Another was used through each wall of the incision. The stitches were introduced from within outward, and extended through the peritonæum and well into the muscles of abdominal wall. A Cleveland ligature carrier was used in preference to a needle. It is necessary to lace the stitch through the outer side of incision, to leave it untied, and then to close the peritonæum, after which the stitch should be tied. The peritonæum was then closed by a continuous catgut suture, and the remainder of the incision by one tier of silkworm gut sutures.

The patient made an uneventful recovery and left the hospital in three weeks, in somewhat better condition than when he went in. The ascites has not been greatly improved. However, we need not expect new vessels of sufficient size to establish a collateral circulation to form in the adhesions in less than four months. I have had to tap the patient five times in the six months since the operation. The last two intervals between tapping were of six weeks each. He was tapped the last time on November 21st. An average of about six quarts of fluid has been removed at each paracentisis. But while his ascites has not improved so much as we should like, yet his general condition has improved greatly. When he went into hospital he was scarcely able to walk, was practically confined to his bed, and was very much emaciated. Now he is up all the time, goes where he pleases, loafs on the streets, walks up the steps to my office, walked up the steps here to-night; jaundice has disappeared; he has gained twenty pounds, now weighing 148 pounds, within two pounds of his normal weight. The only medical treatment he has had since he came under my care is pulv. jalap. comp., 15 grains, as needed, to keep the bowels open, and strychnine nitrate, grain 1/30, three times daily.

The patient's condition, August 1, 1904, shows continued improvement and the ascites has not required paracentesis for over three months.

2 North Court Square.

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[6] Ibid.

RENAL INSUFFICIENCY.

By ANTONIO M. CRISPIN, M. D.,

NEW YORK.

It may with truth be said that all prolonged gastrointestinal inflammation will react, some time or other, on the liver, and this gland is one in which the most urea is formed, although not the exclusive source of it.

The diminution of the quantity of urea in all hepatic diseases is of very grave omen; and its progressive diminution gives us the measure of the profound alteration of the hepatic cells. By the daily examination of the urine voided in twenty-four hours, it is possible to know whether the disease is progressing or whether it has become stationary. It also enables us to foresee a favorable termination, even in the most serious cases. The quantity of urine passed in these cases increases suddenly to three or five quarts, and the urea increases proportionately to 750 grains or more. By this it is seen that the kidney, in affections of the liver, is like a barometer by means of which we can prognosticate the outcome; it acts as a safety valve, and upon its permeability depends the future of the patient.

In lesions of the kidney itself this has a double value, for it is not sufficient to know that a patient has more or less albumin or some casts in the urine; but the questions that the practitioner has to answer are, How are the kidneys functionating? Is there renal inadequacy? The surest way to know if there is toxic retention is by the quantitative valuation of the total solids. In the inflammations of the kidney the solid materials are represented by lower figures, and according to this falling, it indicates that uræmia is imminent. The urinometer here is the equivalent of the thermometer in typhoid fever, or the measurement of arterial tension in heart diseases.

It is probable that many disturbances of the circulatory system have no other pathogenesis than the retention of excrementitious products. Take, for instance, the cardiac manifestations sometimes observed in gout; the mysterious "gout at the heart," which, as Fothergill says, "stands now unveiled before us . . . it is cardiac embarrassment, owing to spasm of the arterioles, which, in its turn, is due to the accumulation of nitrogenized waste in the blood." Many serious cardiac symptoms without organic change and pseudoanginas dependent on a defective elimination of the waste products have been cured by an appropriate treatment directed to the increase of this elimination and to the prevention of its recurrence, which can be foreseen by the periodical examination of the total solids in the urine. The respiratory system is very sensitive to this faulty elimination and many bronchitides and nasal catarrhs depend on it. I have under my care a lady in whom attacks of asthma coincide with a lowering of the solids of the urine, and when she first came under my observation she was passing only 194 grains in the twenty-four hours, when she ought to have passed 1,100 grains in the same space of time.

Many nervous conditions are produced by this insufficient excretion of the waste products of metabolism, which, circulating through the nerve cells, irritate them and cause those painful symptoms seen in migraine, neurasthenia, neuralgia, and insanity—for it is most likely that a severe intoxication lies at the bottom of this disease.

Dr. Duncan Bulkley has called attention to the relation existing between this faulty elimination and the cutaneous affections, and to the fact that the employment of the eliminative treatment, such as by diuretics and attention to the bowels, is frequently crowned with the best success.

Referring to diseases peculiar to women, Dr. James H. Etheridge, of Chicago, says, as quoted by Dr. Bulkley, that "there is the greatest reason for thinking that a very close relation, even that of cause and effect, exists between renal insufficiency and pelvic disorders. The developmental phase of the renal and generative organs constitutes that reason. Embryologically, these two sets of important organs arise from the same source. Observation shows the numerous cases of coexistence between renal insufficiency and neuralgias, mucous membrane disorders, and serous membrane inflammation, one cannot question the possibility of insufficiency producing or permitting amenorrhœas, dysmenorrhœas, leucorrhœas, and attacks of pelvic peritonitis." In puerperal eclampsia, whatever opinion is held respecting this symptom complex, it is undoubtedly due to toxic retention, and by the observation of the solids of the urine we have the best and easiest way of knowing when danger threatens. If every physician made methodical examinations at short intervals of the urine of the pregnant women, puerperal eclampsia would be a rarity. To me it is second in importance only to asepsis. The preeclamptic stage is readily discovered by these examinations, and can accordingly be guarded against.

In estimating the total quantity of urine voided in the twenty-four hours, it is necessary to take into consideration the specific gravity as an indication of the amount of solid matter excreted by the kidneys. This varies according to the age and weight of the person and the exercise taken. The water varies from 3 to 4 pints. The usual methods employed in estimating the solids are more proper for laboratory work, and require a good deal more time than the physician can give to them, and the results are not better than the practical and easy method proposed by Dr. Etheridge, which unites simplicity and readiness.

As the proportion of solids in the normal urine bears a certain ratio to the normal body weight, below a certain percentage of which they cannot fall without indicating "renal insufficiency," the following table was prepared:

Table I.

Relation of Body Weight of Healthy Human Beings to Total Excretion of Urinary Solids.

Weight.	Total urinary solids.
40 pounds	392 grains.
50 pounds	479 grains.
60 pounds	563 grains.
70 pounds	639 grains.
80 pounds	716 grains.
90 pounds	789 grains.
100 pounds	854 grains.
110 pounds	916 grains.
120 pounds	974 grains.
130 pounds	1,028 grains.
140 pounds	1,078 grains.
150 pounds	1,150 grains.
160 pounds	1,198 grains.
170 pounds	1,237 grains.
180 pounds	1,260 grains.
190 pounds	1,300 grains.
200 pounds	1,330 grains.

From this table the following percentage may be deducted according to age. From forty to fifty years of age, deduct 10 per cent.; from fifty to sixty, deduct 20 per cent.; from sixty to seventy, deduct 30 per cent. from the foregoing figures.

For women, who naturally exercise less and who excrete one tenth less than men, the following table has been compiled by Dr. Etheridge, in which he fixes the limit at 500 grains for a woman weighing 90 pounds, and 1,100 for one weighing 180 pounds, or at the rate of 35 grains for each additional 5 pounds, or 7 grains to the pound:

Table II.

Relation of Body Weight of Women of Average Health to Total Daily Excretion.

Weight.	Total urinary solids.
90 pounds	500 grains.
95 pounds	535 grains.
100 pounds	570 grains.
105 pounds	605 grains.
110 pounds	640 grains.
120 pounds	675 grains.
125 pounds	710 grains.
130 pounds	745 grains.
135 pounds	780 grains.
140 pounds	815 grains.
145 pounds	850 grains.
150 pounds	885 grains.
155 pounds	920 grains.
160 pounds	955 grains.
165 pounds	990 grains.
170 pounds	1,025 grains.
180 pounds	1,060 grains.
190 pounds	1,100 grains.

For the collection of twenty-four hour urine the patient is instructed to collect it in a urinal, carefully protected from dust, and to measure it after the lapse of twenty-four hours, using a graduate sold for the purpose, or easier still, by using a quart milk bottle, which measures 32 ounces; a sample of this is sent to the office, stating the total amount passed. From the specific gravity of the sample the total amount of solids passed in the day is easily estimated by Haines's modification of Haeser's method, as given by Dr. Etheridge, which is as follows: Multiply the last two figures of the specific gravity of the urine by the number of ounces voided in twenty-four hours and add 10 per cent. to the product.

Thus, if the amount passed in the twenty-four hours was 36 ounces, and the specific gravity 1021, it would be $36 \times 21 = 756 + 10$ per cent. $=$ 831—the number of grains of solids in the whole amount.

Compared with the table it can be readily estimated whether this is above or below the normal amount, in proportion to the weight of the body of the patient. This applies to urine free from sugar or albumin.

The existence of albumin is an element of error, and it may be eliminated by first precipitating the albumin and filtering the urine, after which the specific gravity is to be taken.

The full significance of what has preceded is nowhere best shown than in practice, when, by the recognition of this faulty elimination, a rational treatment can be instituted.

It is evident that the recognition of this condition suggests the treatment, and no one deserves more praise that the physician who, recognizing the exact state of his patients, knows when to employ eliminative measures and when to withhold them. Water is the best diuretic and is indicated whenever the solids are normal, but the urinary water is diminished; water is the universal solvent, and in our bodies it carries with it the excrementation products of the cells that constitute our organs; it dilutes and carries away, by means of the kidney, the uric acid, urea, phosphates, etc.; it washes out the liver and prevents the formation of biliary and renal calculi. Water is the most important ingredient in the mineral waters, and their virtue depends more on it than in the salts which they may contain.

When there is a deficiency of the solids, this may be increased by fractional doses of calomel, given three times a day, for a few days. By this means the solids can be much increased. If there is much danger of toxic retention, there is nothing to equal a milk diet. By it we diminish the toxicity of the urine and it is the best means to reduce to a minimum the formation, and increase the elimination, of the intestinal poisons. It favors the elimination of the toxines by its duretic properties. The bowels ought to be stimulated to action by a brisk purgative, and in this way one organ supplements the other as it were.

Sodium salicylate will increase the amount of solids eliminated, as it increases the functional activity of the liver as few other remedies will; but its administration must be withheld if the kidneys are structurally changed.

The general hygienic treatment must not be neglected, and the warm bath has a good effect, as it brings this other channel—the skin—into action.

When the amount of solids is excessive, and when there is no contraindication, such as diabetes or other grave disease requiring special medication, zinc valerianate, in grain doses, has given me good results in checking this waste, especially when it was dependent on an over active liver. The excessive elimination of solids, when it occurs in the course of grave jaundice, must be respected; not so, however, with those cases in which it tends to impoverish the system, as is often seen in cirrhosis of the liver.

214 East Sixty-ninth Street.

Hospital Ward for Kansas City, Mo., County Jail.—The county court, on August 2nd, ordered the construction at the county jail of a hospital ward for sick prisoners. The new addition will be in the northeast corner of the jail building known as the kindergarten department where youthful prisoners were formerly kept. The superintendent has the plans in his possession and has placed a force of men at work making the necessary change. The new hospital ward will have an ample number of cots. The regular jail physician and a nurse will be in attendance. From time to time many prisoners have been kept in their cells when they needed hospital attention, because no provision has ever been made for the payment of hospital accounts contracted for prisoners. County prison patients when so ill that confinement would endanger their lives have been sent to the city hospital. But this has never been a satisfactory arrangement, the transfer offering many opportunities for the prisoners to escape. With a hospital ward in the jail building this difficulty will be overcome as the windows are steel barred throughout. It is expected the hospital quarters will be ready for occupancy within ten days or two weeks.

SURGERY UNDER DIFFICULTIES IN EAST AFRICA.

By SAMUEL GURNEY, M. D.,

OLD UMTALI, RHODESIA, AFRICA.

The story of one of my patients illustrates so many features of native life in East Africa and also the sort of work that is being done among these people, and so emphasizes the great need of medical work in this country—where there is only one medical missionary to every three and a half millions people—that I think you may perhaps be interested in reading it.

The patient was a woman ,about sixty years of age—these natives never know how old they are—who lived in a native village, or kraal, about eight miles from our mission. Her name was Mamuchandióma.

My attention was first called to her, not by telephone, or a messenger ringing my door bell, for that is not the heathen way of doing things, but by hearing her cries of distress in a cornfield by the road side while I was journeying, in company with another missionary, to a native kraal. Upon turning aside to investigate we found a woman lying on the bare ground with scarcely any clothing, and apparently in great mental and physical agony. She at once recognized me and began to plead for "mashonga"—medicine—to relieve her sufferings.

Upon questioning her the following history was elicited. For several months she had experienced much discomfort, and sometimes severe pain, in the pelvic region. Eight days before we discovered her, she was suddenly seized, while in a stooping posture, with severe abdominal pains and a sensation resembling that of parturition. Upon examination she found a mass about as large as a child's head protruding from the vagina, which could neither be replaced nor entirely expelled.

The whole tribe had been informed of her condition, but no one could suggest any remdy. It was useless to appeal to the witch doctor. As usual, heathenism was perfectly helpless. The people all agreed that she must die, and therefore, according to native custom, she was removed far from any human habitation and left to fight her battle alone with the "king of terrors."

During the eight days of suffering which followed the tumor had been exposed to all the infection of insects and of the filth with which she was surrounded; so that now all the lower portion of it had become gangrenous, and gave out a stench so terrible that it is no wonder the people wanted her removed out of the village.

As the decomposition of tissue effectually concealed the cervix uteri and all other landmarks, the first diagnosis was that the tumor consisted of a completely inverted uterus the walls of which contained multiple fibroid tumors. This diagnosis was rendered uncertain, however, because no orifices of the Falloppian tubes were discoverable, and because the pelvic organs were so dragged out of their normal position as to render cystic, rectal, or bimanual examination of little service.

Later, upon cutting away a gangrenous portion of the tumor, I discovered the cervical canal, and the diagnosis of a polypoid uterine tumor was made. The free portion of this tumor had been expelled, presumably as in the case of the fœtus, while the remainder was firmly attached to the uterus. I washed the putrefying mass as best I could—using a native cooking pot for that purpose—and then by means of a towel made a sort of suspensory bandage for the tumor.

The general condition of the patient was not very encouraging, for her pulse was up to 140 and she seemed on the verge of general collapse.

I urged the people, who had heard of our arrival, to take her to a hospital for surgical treatment at once. They refused to take her to the white man's hospital, twenty miles away, although I advised them to do so. Later I discovered, however, that that hospital would not have received her, even had they taken her there. I did not want them to bring her to me at the mission, because I had no hospital building or equipment for such work.

A peculiar difficulty which confronted the natives was concerning the mode of transportation. The woman could not walk, and there was no ambulance, and, in fact, no road for any wheeled vehicle. The only available mode was that of carrying her in a hammock. Had she been a sack of corn or a goat the problem would have been easy, but it was beneath the dignity of these brave men to carry so contemptible a creature as a woman, especially a sick woman.

Imagine my surprise when the next day the whole crowd of them appeared at the mission with the patient. The poor creature was by that time in such a critical condition that immediate operation was out of the question; but, after twenty-four hours of sterilization and stimulation, I decided to operate, and thus give her the only chance for life she had.

I fully explained to her family and the king—for he also had come with her—the danger of the operation and the probability of death. Then one of our missionaries who understands their language gathered them all about her bed and prayed for the divine help and blessing.

Perhaps you may be able to imagine the task which confronted me with so grave an operation on hand, the patient in such a critical condition, with no trained assistants, with no sterilizer except a wash boiler, with no operating furniture except a table made of a packing case. Everything about the operation, however, went nicely; and in one hour the work was completed and a fibromyomatous tumor nearly as large as my head was removed from the uterus. For a few hours after the operation the patient was in a very critical condition. She then began to respond to treatment and has made an uninterrupted recovery.

She has now returned to her heathen kraal, but I trust the old heathen life is a thing of the past. While she will tell her people of her salvation from physical death, we have aimed so to impress her with the religion of Christ that she shall tell of the Great Physician and his salvation.

Therapeutical Notes.

A New Treatment of Pulmonary Tuberculosis.—Dr. Henri Mendel's efforts to combat pulmonary tuberculosis by intratracheal medication are commended by *Journal des praticiens* in its issue of July 9, 1904. The formula used is:

℞	Oil of eucalyptus Oil of thyme Oil of cinnamon	of each ... 5 grammes (75 grains);
	Sterilized olive oil	100 grammes ($3^1/_3$ ounces);
	Iodoform	5 grammes (75 grains).

M. For intratracheal use.

The disagreeable odor of iodoform is often distinguishable in the patient's breath for several hours.

A special syringe of a capacity of 3 cubic centimetres is used. The patient's tongue is seized with a cloth in the left hand, which discloses part of the posterior pharyngeal wall and renders deglutition practically impossible. The syringe is gently introduced with the right hand, its curve being held horizontally, so as not to touch the tongue. The back of the cannula is then allowed to rest on the base of the left anterior pillar, which serves as a fulcrum. The syringe is emptied forcibly and withdrawn. The patient, having been warned, expectorates the surplus fluid and rinses the mouth with water. Generally a sensation of relief and coolness is felt in the chest. If any coughing should ensue an injection of pure oil is given. If the coughing, however, should depend upon pharyngeal irritation, a gargle of cold water gives relief.

All symptoms save fever seem to be favorably influenced and stethoscopic examination discloses improvement in the pulmonary condition.

Pruritus.—Trémolières, in *Presse médicale*, for June 25, 1904, gives the formula of a favorite French lotion for the various forms of pruritus:

℞	Hydrocyanic acid, officinal	½ to 1 part;
	Mercury perchloride	½ to 1 part;
	Copper sulphate	1 to 5 parts;
	Carbolic acid	5 to 10 parts;
	Resorcin	5 to 20 parts;
	Chloral	5 to 25 parts;
	Potassium bromide	5 to 50 parts;
	Water	1000 parts.

M. Use after heating.

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A FRENCH IMPRESSION OF AMERICAN HOSPITALS.

It is always interesting and generally profitable to read what foreign visitors have to say about us. The captiousness so often displayed by them in bygone years has now largely disappeared, and their criticisms are as a rule wholesome. Few recent visitors have manifested truer impressions or shown more justice in comment than Dr. J. L. Faure, whose article appears in the *Presse médicale* for July 27th. His visit was not wholly confined to the United States, for he enthusiastically praises a new hospital, not quite completed, that he saw in the City of Mexico.

He declares that the most beautiful operating theatre that he has ever seen is that of the new Mount Sinai Hospital in New York, but he implies that some needless expense is shown in it. He thinks that our operating tables as a rule are not so good as those used in France, for they do not admit of such convenient change of the patient's posture, especially in pelvic surgery. He condemns our instruments as too heavy and clumsy, declaring that it takes real artists and not machine workers to fashion delicate instruments. He admires the plan of private rooms for pay patients, also the special hospitals for persons with acute infectious diseases.

He is fully appreciative of the excellence of American nurses. They are generally, he says, drawn from a superior class of the population, and their education, both preliminary and professional, is more advanced than in his own country; but he thinks that too many of them are immediately employed in an operation, and, in general, too many assistants, thus increasing the risks of septic infection. While he finds that our surgeons and nurses asepticize their own persons faultlessly, he doubts if the patient is as thoroughly asepticized as in France. As regards the professional personnel, he approves of the method of appointing the members of the house staff, but he fears that political considerations and lay meddling have too much to do with the choice of the higher medical officers. He has even imbibed the idea that in some hospitals the surgeons are subject to change at every presidential election, which, of course, is quite erroneous.

He finds no more difference between the actual surgery of America and that of the chief European countries than exists between the work of one surgeon and that of another in any one country. He seems to approve of the celerity with which operative intervention is brought to bear in cases of serious injury, as was exemplified in the treatment of President McKinley, and he appears to have a high opinion of the best of our operative work. In particular, he pays a glowing tribute—amply deserved, we may add—to the wonderful work of the Mayo Brothers, of Rochester, Minnesota. In conclusion, he expresses the liveliest appreciation of the courtesy shown him by the American surgeons.

ASSOCIATED INFANTILISM AND SENILITY.

In an exceptionally well elaborated article published in the August number of the *Practitioner*, Mr. Hastings Gilford, F. R. C. S., consulting surgeon to the Reading Dispensary, describes two cases (and a somewhat analogous third one) of a curious mixture of infantilism and senility to which he gives the name of progeria (from πρόγηρος, prematurely old), a term suggested to him by Mr. James Rhoades and Professor Arthur Sidgwick. From the fact that there were certain features of the cases suggestive of acromegaly, Mr. Gilford at first designated the disease tentatively as "micromegaly," but he has done well not to retain that term. We are all familiar with the somewhat aged appearance of certain subjects of congenital syphilis and of a few other dyscrasiæ, but it is not to any such condition that Mr. Gilford has reference; the form of premature senility, or "senilism," that he is treating of may, he says, "constitute such a solitary and outstanding feature as practically to be a disease in itself." One of the cases recorded by the author had previously, when the subject was much younger, been described by Mr. Jonathan Hutchinson under the title of Congenital Absence of Hair and Mammary Glands with Atrophic Condition of the Skin and its Appendages in a Boy whose Mother had been Almost Wholly Bald from Alopecia Areata from the Age of Six (*Medicochirurgical Transactions,* lxix).

Though there were some features of infantilism in Mr. Gilford's cases, notably the dwarfed stature, the absence of hair, and the unclosed state of the anterior fontanelle, those of senility seem to have predominated, and the two subjects, both boys, bore a striking resemblance to each other. In place of the briskness of youth there was the feeble gait of old age, and the children were not able to walk for any considerable distance, but were ordinarily carried about in a "mail cart." The intellectual development, far from being defective, was rather in advance of that proper to the children's ages, and they were of a pleasant temper, though naturally sensitive to observation and comment. Both died before reaching the age of twenty, and in each of them death occurred somewhat suddenly, as is apt to be the case with the aged. A post mortem examination of one of them showed a persistent and enlarged thymus and atheromatous and calcareous degeneration of the large arteries.

Mr. Gilford has failed to find in literature any accounts of other cases that can well be included in quite the same class as his own, though there are many records of instances more or less closely resembling them. At the same time he thinks that there must have occurred some that have been overlooked. As to the pathology, the disease does not seem to originate in fœtal life, but to come on at the time of the first dentition. He has been unable to detect the cause of it in an abnormity of any organ of the body, though he says that the pituitary body, which was "passed over with a very short inspection," would have been examined more minutely had he known the importance that that organ was afterward to assume. In this connection he refers to a remarkable article by Dr. Woods Hutchinson, entitled The Pituitary Gland as a Factor in Acromegaly and Giantism, published in the *New York Medical Journal* for March 12 and April 2, 1898, and July 21 and 28, 1900, which article many of our readers will doubtless recall.

THE GROWING APPRECIATION OF YEAST AS A REMEDY.

Until quite recently yeast was hardly used in medicine, except occasionally in an antiseptic and anodyne poultice and, administered internally, to prevent the continued formation of furuncles. Its rise to fresh importance as an article of the materia medica seems to date from its topical employment in vaginal leucorrhœa. In this direction its use has lately been extended by M. Audebert, of Toulouse, to the treatment of the leucorrhœa of pregnancy (*Presse médicale*, July 30th). That gentleman has reported on its employment in twenty-nine cases, including three of simple leucorrhœa, one of leucorrhœa with inflammation of the vulva and erythema, fourteen of granular elytritis, two of granular elytritis with very intense erythema, three of gonorrhœal elytritis, three of vegetations of the vulva, and three of uterine trachelitis. In these twenty-nine cases the results were amelioration in three, a cure in twenty-six, and failure in two. The vagina was first washed out with about two quarts of warm sterilized water injected slowly, the rugæ being smoothed out with the fingers. It was then injected with a mixture of two tablespoonfuls of dried yeast dissolved in a quart of water. Finally, a tampon imbued with a syrupy mixture of yeast and sterilized water was placed against the cervix. These procedures were repeated every morning.

Internally, yeast has been used with advantage in smallpox by Presta and Tarruella, who have since reported upon its employment in measles, scarlet fever, and erysipelas. It appears from a *résumé* of their observations given in the *Revue française de médecine et de chirurgie* for August 1st that in the great majority of their cases of measles (twenty-eight) and scarlet fever (seventeen) the duration of the illness was decidedly shortened, not indeed by an abbreviation of the specific disease, but by the prevention of sequelæ. Under the use of yeast the cases speedily assumed a mild course. In each of these diseases, also in the cases of erysipelas, the amounts of dried yeast given in twenty-four hours were from four to six coffeespoonfuls. The number of cases of erysipelas treated with yeast was twenty-four. The symptoms became milder immediately, though no local application was employed. It seems reasonable, in view of the reports that have been made of late, to expect that yeast will soon be generally recognized as one of our staple remedial agents.

THE DUE RETURN OF BIRTH CERTIFICATES IN NEW YORK.

An opinion recently handed down by the Appellate Division of the Supreme Court of the State of New York, First Department, is not entirely reassuring to the busy practitioner.[1] This was an action brought in the name of the Department of Health to recover a penalty of $100 imposed by section 1239 of the Greater New York Charter for failure by the defendant to report a birth at which he attended, as required by section 1237 of the charter. This section imposes the duty upon physicians and professional midwives "to keep a registry of the several births in which they have assisted professionally, and which shall contain, as near as the same can be ascertained, the time of such birth, name, sex, and color of the child, the names, residence, birthplace, and age of the parents, occupation of the father and maiden name of the mother; and to report the same within ten days to the Department of Health." The report required was not received at the department. The defendant testified that he had prepared and mailed the report in due time.

The majority of the court was of the opinion that a physician had complied with the statute when he had properly made out a certificate or report and had mailed it, postpaid, properly directed, to the Department of Health within ten days of the date of birth; but that where such certificate was not received the burden was imposed upon the physician of furnishing evidence of its having been properly and duly mailed. In commenting upon the sufficiency of the evidence offered by the defendant upon this point, Mr. Justice O'Brien, speaking for the majority of the court, said: "Upon this we have the defendant's testimony, which, although it is not as positive and satisfactory as could be wished, was sufficient to justify the conclusion at which both the Municipal Court and the learned Appellate Term arrived, that the notice was properly mailed.

"Summarizing the defendant's testimony, he says that he attended at the birth of the child and made a record thereof by entering it in his books and preparing a copy of such record for the health board; and in reply to the question: 'What did you do with that certificate?' he answered, 'Put it in the letter box, as near as I can remember.' Were this all of his testimony, we should not deem it sufficient; but he further testified that he took the certificate, put it in an envelope, directed the envelope to the board of health, bureau of records, Fifty-fifth Street and Sixth Avenue—which was concededly the place to which such certificate should be sent—put a stamp on the envelope, and put it in one of the regular mail boxes of the government. When cross-examined with reference to the exact date, he could not give it, although he stated positively that the notice was made out and sent within ten days. . . .

"We think, therefore, as already said, that, although the defendant might have been a little more definite as to the date and the particular letter box in which he placed the notice, in view of his testimony that he made it out and placed it in an envelope duly stamped and properly directed, and that he personally placed it in a letter box, there was sufficient upon which to rest the conclusion of the Municipal Court and of the Appellate Term as well as the decision of this court that the certificate was actually mailed by the defendant to the board of health."

In considering the force of the words of Mr. Justice O'Brien, it must be remembered that the question he was considering was not that of whether the testimony reviewed was sufficient to prove the due mailing of the notice, but simply that of whether there was testimony upon which to base the conclusion of the trial court that the notice had been duly mailed. It therefore follows that, had the trial court concluded upon the same evidence that the doctor was mistaken as to the time of mailing or the actual fact of mailing the notice, the learned justice might equally well have said that the evidence of the doctor was not sufficiently definite and certain to justify disturbing the judgment of the court below. If this decision may be relied upon as a correct presentation of the law, the suggestion immediately presents itself that the physician should at the end of his registry of the particular birth make a minute of the preparation of the required notice, the sealing it in a postpaid and correctly addressed envelope, and the place and time of mailing it, which minute, or memorandum, should be made as soon as the facts referred to are performed and while they are fresh in the doctor's mind. With such a record the physician, called upon in succeeding months or years to defend himself, could, upon taking the witness stand, testify that he made the entry in question shortly after mailing the notice and while the facts were fresh in his mind, and that he then knew the facts were correctly stated in the minute. Thereupon he would be permitted to refer to the minute for the purpose of refreshing his mind and to testify to the facts as there set forth. With such testimony the court would not, except upon the most convincing evidence to the contrary, find other than in accordance with the physician's testimony.

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[1] Department of Health, etc., *v.* Owen, 94 App. Div., 425.

We are not, however, permitted to feel entirely complacent with the adoption of this safeguard, as two of the five justices by whom this case was considered in the Appellate Division dissented from the opinion that a physician who merely mailed such a report within the required time complied with the law. Mr. Justice Van Brunt expresses his view with the laconic statement, "The statute was in no way complied with." Mr. Justice Laughlin expresses his view more fully to the effect that the legislature intended that the physician should not only keep a register of the births he attended professionally, but that he should see to it that a copy of the entries in such registry reached the Department of Health within ten days. The justice says: "Of course it is not necessary that he should present it in person. He may employ the mails or any agency for the purpose of transmission; but, in that event, he must by inquiry or otherwise ascertain that it has reached its destination within the time prescribed therefor by the statute."

Had this decision been rendered by the court of last resort, the suggestion of Mr. Justice Laughlin, as quoted, might safely be disregarded, but as the majority of the justices of the Court of Appeals may, if the question is presented to them, take the view of Justices Van Brunt and Laughlin, the prudent practitioner will not deem it entirely safe to neglect the suggestion quoted from the dissenting opinion. ARTHUR L. TAYLOR.

FURTHER ADVENTURES OF THE POISON SQUAD.

The young pharmacophagi of Washington, we understand, are to begin the ingestion of food which has been subjected to cold storage for varying periods. We do not expect any startling results from this new experiment, as the citizens of New York have for many years eaten largely of food so treated and our death rate is not alarming—and has certainly not increased since the cold storage process was devised. A really interesting experiment, if subjects willing to undergo it are to be found, would be the feeding of a squad exclusively on pork, hot biscuit, and pie, which form the dietary regimen of an immense proportion of our rural population.

DR. OSLER'S CALL TO OXFORD.

It is announced that Dr. William Osler, of Baltimore, has been appointed regius professor of medicine in the University of Oxford, and we congratulate the ancient university on the acquisition of so keen a clinician and so genial a man. We are not sure that his new field will afford greater scope for his remarkable abilities than he has found in Montreal, Philadelphia, and Baltimore, but we feel certain that Oxford will be the gainer by his accession to its medical faculty.

THE ARCHIVES OF THE ROENTGEN RAY.

We understand that this admirable English journal is soon to have an American associate editor, Dr. Henry G. Piffard, of New York, also several American collaborators. These accessions to its staff, together with the establishment of the Rebman Company, its publishers, in New York, will make it truly an international journal.

News Items.

Society Meetings for the Coming Week:

Tuesday, *August 23rd.*—Richmond, Va., Academy of Medicine and Surgery; New York Medical Union (private).

Wednesday, *August 24th.*—American Microscopical Society of the City of New York; Philadelphia County Medical Society; New York Dermatological Society (private).

Thursday, *August 25th.*—Pathological Society of Philadelphia; New York Celtic Medical Society.

Saturday, *August 27th.*—Harvard Medical Society. New York (private).

NEW YORK.

Change of Address.—Dr. F. C. Edmonds, to the German Hospital, Brooklyn, St. Nicholas Avenue and Stanhope Avenue.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending August 13, 1904:

	Week end'g Aug. 13.		Week end'g Aug. 6.	
	CASES.	DEATHS.	CASES.	DEATHS.
Measles	95	8	133	6
Diphtheria and croup	211	23	232	33
Scarlet fever	50	2	68	2
Smallpox	..	1	3	..
Chickenpox	9	..	11	..
Tuberculosis	328	153	366	146
Typhoid fever	86	18	67	13
Cerebrospinal meningitis	..	24	..	..
Totals	779	229	880	200

Dr. Patrick J. Murray, assistant sanitary superintendent of the Borough of Brooklyn for the department of health, relinquished his duties on August 11th, together with the annual salary of $3,500.

Dr. William T. Jenkins, formerly health officer of this port, has been appointed sanitary engineer in the health department at an annual salary of $2,400. Commissioner Darlington has dated the appointment from July 1st.

New Administration Building for the City Contagious Hospital.—Plans were approved during the past week by the building department of the Borough of Queens for the New York City Contagious Hospital administration building, which is to be erected on the land recently purchased by the city between Flushing and Jamaica. The land is on the line of the trolley from Flushing to Jamaica. The building will cost $30,000, and will be imposing in appearance. It will be 40 by 44 feet, and will be used as offices and apartments for physicians and nurses. It will be completed within six months. A sterilizing plant has already been erected on the land and is now ready for use.

Bequests to New York Charities.—The will of Marcus Goldman, who died on July 20th, was filed on August 3rd. It leaves bequests to the following charitable institutions: Hebrew Benevolent and Orphan Society, $1,000; Mount Sinai Hospital, $1,000; Home for Aged and Infirm Hebrews, $1,000; United Hebrew Charities, $1,000; German Hospital, $500; Montefiore Home for Chronic Invalids, $1,000; Hebrew Technical Institute, $1,000; St. John's Guild Free Hospital for Children, $500; Society for Improving the Condition of the Poor, $500; Children's Aid Society, $500; Hebrew Sheltering Guardian Society, $1,000; Association for the Improved Instruction of Deaf Mutes, $500; and Hebrew Technical School for Girls, $1,000.

Appointments in the Hospitals for Contagious Diseases.—An examination of applicants for the position of assistant resident physician in the hospitals for contagious diseases connected with the department of health will be held at the Willard Parker Hospital, at the foot of East Sixteenth Street, on September 1 and 2, 1904, at 2 p. m. Applicants should have had a general hospital training, or practical experience in the care of infectious diseases. The positions are salaried. Examinations will be both written and practical, and will include general medicine, surgery, pædiatrics, bacteriology, pathology, and infectious and contagious diseases. Candidates for the position should, as soon as possible, file their applications with the secretary of the department of health, Fifty-fifth Street and Sixth Avenue.

PHILADELPHIA.

Philadelphia Health Report.—*The Report on Contagious Diseases, compared with that of the previous week, is as follows:*

	Week end'g Aug. 13.		Week end'g Aug. 6.	
	CASES.	DEATHS.	CASES.	DEATHS.
Smallpox	..	..	..	..
Diphtheria	40	5	44	5
Scarlet fever	51	..	51	3
Typhoid fever	100	11	84	5
Consumption	..	58	..	54
Cerebrospinal fever	..	..	..	..
Totals	191	74	179	67

Heat Prostrations.—Six cases of heat prostration were reported on August 5th. The maximum temperature for the day was 84° at 4 p. m. The humidity varied from 91 to 78.

New Superintendent of Philadelphia Hospital.—William F. DeFrates, of the Thirty-ninth Ward, has been appointed superintendent of the Philadelphia Hospital, which position was made vacant by the death of Robert H. Smith.

Hospital Bequests.—By the will of Cornelia Thompson, the Presbyterian Hospital in Philadelphia receives $10,000 for the endowment of two free beds. The Children's Hospital receives $5,000.

By the will of Benjamin F. Teller, the Jewish Hospital Association of Philadelphia receives $35,000 for free beds.

Medical Inspection of Schools.—Assistant Chief Medical Inspector Beatty has reported to the Director of Public Health the work done by the assistant medical inspectors in the medical inspection of schools during April, May, and June. There were 155,707 pupils inspected during the three months in question, and many of these were seen more than once, making a total of 687,414 examinations. Of these, 6,936 pupils were excluded from the schools. The diseases for which the pupils were sent home include almost all the infectious diseases and many chronic complaints.

Three thousand eight hundred and fifty-four children were sent home for pediculosis. There were 6,282 cases of disease of the eye, ear, nose, and throat met with. Some of the complaints were severe enough to rquire the exclusion of the pupil from school, while other cases did not require such exclusion. The eye furnished the greatest portion of this total (5,150). When conditions were found that did not require exclusion from school treatment was recommended to the parents of the pupil. In the case of diseases of the eye such recommendations were adopted in 35 per cent. of cases. Many cases of contagious skin disease were found. The time and money spent in the medical inspection of schools are amply justified by this report. The school is one of the great spreading places for contagious diseases in large cities, and careful inspection ought to result in lessening the incidence of such disorders. Again, parents of the lower classes are very careless about the physical condition of their children and send them to school when they are not fit to go. Medical inspection by competent men ought to result in great benefit to the children of such classes.

The Pennsylvania State Board of Medical Examiners, representing the Medical Society of Pennsylvania, have just completed their work of ascertaining the average of those who took the examination June 28, 29, 30, and July 1, 1904, in Philadelphia and Pittsburgh, after a three day session at Haddon Hall, Atlantic City, N. J.

Of the 379 applicants two failed to appear; one did not write his paper in English; one withdrew; one was expelled; seventy-three failed to attain the legal average; and three hundred and one were recommended to Medical Council for license. Percentage of failure, 19.5. Seventy-five failed in Anatomy; 247 in Physiology and Pathology; 87 in Practice and Therapeutics; 17 in Surgery; 40 in Obstetrics; 140 in Chemistry and Materia Medica; 27 in Diagnosis and Hygiene.

Candidates were especially weak in Physiology and Pathology, also in Chemistry and Materia Medica.

That the candidates are imperfectly instructed in Chemistry and Materia Medica has been conclusively proven by the following facts:

For a number of years the examiner in Obstetrics was examiner in Chemistry and Materia Medica. From the large percentage of failures in the latter the board deemed it wise to give the branches of Chemistry and Materia Medica to the examiner of Obstetrics, who was considered a very liberal marker. The results from this change are that Obstetrics this year has the third lowest number of failures, and Chemistry next to the highest number. List of applicants:

LIST OF SUCCESSFUL APPLICANTS.

Allyn, Jessie, of Woman's Hospital, Phila., Pa.; Apple, Clarence Ellwood, of No. 149 W. Susquehanna Ave., Phila., Pa.: Arthur, Herbert S., of McKeesport, Pa.; Attix, James Conner, of Easton, Northampton Co., Pa.; Austin, J. Paul, of No. 237 S. 13th St., Phila., Pa.; Bader, Walter Philip, of Honesdale, Wayne Co., Pa.; Bailey, James Augustus, of No. 805 Carson St., Pittsburgh, Pa.; Bailey, Jean Cruickshank, of Greensburg, Westmoreland Co., Pa.; Bailey, Robert Wellesley, of No. 1541 Thompson St., Phila. Pa.; Bair, Chas. Homer, of No. 552 Harrison Ave., Greensburg, Pa.; Baker, Theodore, of Belle Vernon, Fayette Co., Pa.; Bateman, Sydney E., of No. 101 S. 15th St., Phila., Pa.; Bates, Hervey Lelan, of No. 7737 Norwood Ave., Phila., Pa.; Beach, Edward Warren, of Oak Lane, Montgomery Co., Pa.; Bell, David Major, of Midway, Washington Co., Pa.; Bentley, David Fuller, of Lansdowne, Delaware Co., Pa.; Benz, Henry J., of 1100 Frederick St., S. S., Pittsburgh; Bergeron, Pierre Norbert, of St. Joseph's Hospital, Phila., Pa.; Bershad, Leonard, of No. 315 Washington Ave., Phila., Pa.; Bickings, Mary Louise Dixon, of Mechanic St., Roxborough, Phila., Pa.; Bieber, Warren Joshua, of No. 25 N. Linden St., Bethlehem, Pa.; Bigelow, Samuel Edward, of Belleville, Mifflin Co., Pa.; Biggins, John Rickard, of Eldred, McKean Co., Pa.; Bikle, Paul Harold, of Clifton Heights, Delaware Co., Pa.; Billings, Frederick Tremaine, care of Equitable Life Co., Frick B., Pittsburgh, Pa.; Blair, James Dana, of Girard, Erie Co., Pa.; Blakeslee, Walter Herbert, of Room B, Broad St. Station, Phila.; Boardman, Carl, of No. 6352 Drexel Road, Phila.; Bogia, Reuben A., of No. 760 Preston St., Phila.; Bonney, Charles Walter, of No. 27 Clinton St., Phila.; Bottenhorn, J. P., of Oliveburg, Jefferson Co., Pa.; Bowers, Walter Garfield, of Moosic, Lackawanna Co., Pa.; Bray, Edward Griswold, of No. 1007 E. Baltimore St., Balto., Md.; Bretthauer, Emilie, of No. 254 Diamond St., Phila., Pa.; Briggs, Miron Luke, of Shickshinny, Luzerne Co., Pa.: Brody, Myer, of No. 123 N. Second St., Phila.; Browne, Bennet Bernard, Jr., of No. 510 Park Ave., Baltimore, Md.; Brown, Harrison Morgan, of No. 1303 Wylie Ave., Pittsburgh; Brown, James Erroll, of No. 1303 Wylie Ave., Pittsburgh; Brown, Joel Daniel, of R. F. D. No. 3, Norristown, Pa.; Buckingham, Harry Sheldon, of Clayton, Gloucester Co., N. J.; Buckley, Ralph E., of No. 133 Apsley St., Phila., Pa.; Butt, William Redfield, of No. 1509 Poplar St., Philadelphia, Pa.; Buttermore, John Sankey, of No. 2100 Sarah St., Pittsburgh, Pa.; Caldwell, Merlin, of No. 4416 Penn Ave., Pittsburgh; Campbell, Marsden Douglass, of Belleville, Mifflin Co., Pa.; Campbell, Oren Chesney, of Race St., Butler, Pa.; Carrier, Sydney Smith, of Mayville, Chautauqua Co., N. Y.; Carrier, William Willis, of Summerville, Jefferson Co., Pa.: Carroll, Thomas Benjamin, of Allegheny Gen. Hosp., Allegheny, Pa.; Cartwright, Frank William, of No. 841 N. Broad St., Phila., Pa.: Chapman, Ira Wellington, of No. 528 Herron Ave., Allegheny, Pa.; Chodoff, Louis, of No. 431 Pine St., Phila.; Cloak, Andrew Bert, of R. F. D. No. 3, Kittanning, Pa.; Coll, James Patrick, of No. 1901 S. Broad St., Phila., Pa.; Corlies, Anna Evans, of No. 4427 Osage Ave., Phila.; Cornfeld, Rebecca, of No. 521 S. 5th St., Phila.; Crandall, H. Noble, of No. 814 22nd St., N. W., Washington, D. C.; Creighton, William James, of No. 2313 E. York St., Phila., Pa.; Crookston, William Judd, of No. 1213 Chislett St., Pittsburgh; Crowe, James, of Fox Chase, Philadelphia, Pa.; Crozier, Alfred W., of No. 4067 Liberty Ave., Pittsburgh, Pa; Cunningham, Lester W., of No. 17 N. 41st St., Phila., Pa.; Dale, David, of Lemont, Centre Co., Phila.; Davis, William Price, Jr., of No. 1824 Wylie St., Phila.; Davitch, David Herman, of No. 1427 S. 4th St., Phila.; Deckard, Percy Edward, of Richfield, Juniata Co., Pa.; Degenring, Anna, of No. 75 E. Jersey St., Elizabeth, N. J.; Devitt, Benjamin Franklin, of No. 3614 Hamilton St., Phila.; Devlin, Albert J., of No. 1615 N. 10th St., Phila.; Dickey, Ezra A., of 1523 W. Balto. St., Balto., Md.; Dickey, Samuel James, of Hartstown, Crawford Co., Pa.; Ditchburn, David T., of Arnot, Tioga Co., Pa.; Donahoe, John Patrick, of 1428 So Webster Ave., Scranton Co., Lackawanna, Pa.; Donaldson, James Oswell, of 5325 Carnegie Ave., Pittsburgh; Downs, Ardrey Whiddin, of Downington, Chester Co., Pa.; Drayton, William, Jr., of Penllyn, Montgomery Co., Pa.; Duff, James H. K., of 4502 5th Ave., Pittsburgh; Duffy, Ralph, of West. Penn. Hosp., Pittsburgh, Pa.; Duncan, Harry A., of 3403 W. Broad St., Phila.; Earhart, Elias Bruce, Saltsburg, Indiana Co., Pa.; Edie, Elliott Bard, of Connellsville, Fayette Co., Pa.; Edwards, George Martin, of Mercy Hosp., Pittsburgh; Edwards, William McEwen, of Jefferson Hosp., Phila., Pa.; Enos, J. Clive, Charleroi, Washington Co., Pa.; Fager, John Henry, of No. 120 Walnut St., Harrisburg, Pa.; Farnsler, Herbert Hershey, of No. 1529 N. 19th St., Phila.; Feigenbaum, Hyrna, of No. 5224 Butler St., Pittsburgh, Pa.; Feltwell, Myrtle Regina, of Sewickley, Allegheny Co., Pa.; Ferer, Charles Kline, of Riegelsville, Bucks Co., Pa.; Ferman, John Wesley, of Crenshaw, Jefferson Co., Pa.; Findley, William McCrea, of 1101 Franklin Ave., Wilkinsburg, Pa.; Fisher, James G., of Plumville, Indiana Co., Pa.; Flynn, John Francis, of No. 147 W. 8th St., Erie, Pa.; Freed, Raymond Stoner, of No. 30 Morris House, U. of P. Dorm., Phila.; Freeland, James Roy, of Melrose, Montgomery Co., Pa.; Frescoln, Leonard Davis, of 3304 Baring St., Phila.; Fridy, Cyrus Ward, of Mountville, Lancaster Co, Pa.; Frye, Benjamin A., of Sharpsville, Mercer Co., Pa.; Garton, Albert Ferdinand, of No. 240 W. 63rd St, Phila., Pa.; Giffin, Herbert Zeigler, Box 6, Atlantic City, N. J.; Goldberg, Maurice, of No. 423 S. 4th St., Phila.; Gordon, John K., of Germantown Hosp., Germantown, Pa.; Gourley, John Coulter, of Marion Centre, Indiana Co., Pa.; Gray, Robert Lochead, of 4721 Penn St., Frankford, Phila.; Gray, Stoddard P., of No. 707 Walnut St., Phila.; Grier, George Washington, of Sewell, Gloucester Co., N. J.: Grim, Jesse, of Volant, Lawrence Co., Pa.; Grove, Robert Emory, of Jeannette, Westmoreland Co., Pa.; Guthrie, Kenneth Sylvan, of No. 1501 N. Marshall St., Phila., Pa.; Hall, G. Orbin, of Sardis, Westmoreland Co., Pa.; Hammers, James St. Elmo, of Indiana, Indiana Co., Pa.; Hargrave, Harry Monroe, of No. 905 W. St., N. W., Washington, D. C.; Harper, Howard Cyrus, of Jamestown, Mercer Co., Pa.; Hart, Charles Vincent, of Hatboro, Montgomery Co, Pa.; Hensyl, William Curtis, of Howard, Centre Co., Pa.; Herb, Henry Henydt, of Mertztown, Berks Co., Pa.; Hibbs, Samuel Evans, of Uniontown, Fayette Co., Pa.; Hintze, Anne Augusta, of Phila. Hosp., Phila., Pa.; Hoffa, William Huber, of Washingtonville, Montour Co., Pa.; Hoffman, Charles W., of Reynoldsville, Jefferson Co., Pa.; Hoffman, George Llewellyn, of No. 663 N. 11th St., Phila.; Holman, Frank Kennedy, of P. E. Hosp., Phila.; Holzman, Mark Benjamin, of No. 425 Tasker St., Phila.; Homer, Harry Lewis, of Rider P. C., Balto., Md.; Hook, John Stuyvesant, of No. 4502 Minerva St., Pittsburgh; Hope, John Ferguson, of No. 15 N. 50th St., Phila., Pa.; Hunter, Robert John, of No. 1728 S 10th St., Phila., Pa.; Iams, Jay Donald, of Sheradenville, Allegheny Co., Pa.; Imbrie, Clarence E., of Harrisville, Butler Co., Pa.; Ireland, F. W., of No. 562 Lafayette Ave., Brooklyn, N. Y.; Jefferson, James, of South Dennis, Cape May Co., N. J.; Jenks, Horace H., of No. 920 Clinton St, Phila., Pa.; Johnston, Frank Dallas, of Marshall Ave., Allegheny, Pa.; Jones, John Bayley, Jr., of No. 1325 Erie Ave., Phila., Pa.; Jordan, Stuart Smith, of Volant, Lawrence Co., Pa.; Joseph, Louis Daniel, of Bradford, McKean Co., Pa.; Kane, Clinton Austin, of Mercy Hosp., Pittsburgh; Kane, Joseph Jeremiah, of St. Agnes Hosp., Phila.; Kaufman, John Brooks, of Portsmouth, Norfolk Co., Va.; Kelly, Thomas C., of Univ. Hosp., Phila.; Klaer Fred. H., of Univ. Hosp., Philadelphia; Knoll, Louis P., of No. 143 Central Ave., Buffalo, N. Y.; Kuder, William S., of No. 41 Spruce St., Norristown, Pa.; Lantz, Herbert Leslie, of No. 426 Hastings St., Pittsburgh; Lehman, Frederick Charles, of No. 1700 N. 25th St., Phila., Pa.; Leibert, Harry Fritz., of No. 418 E. 5th St., So. Bethlehem, Pa.; Leventhal, Nathan Lewis, of No. 617 S. 7th St., Phila.; Lewis, Orville Garrett, of No. 130 Highland Ave., Washington, Pa.; Ley, Philip Albert, of No. 615 Chestnut St., Allegheny, Pa.; Light, Seth Andrew, of Lebanon (R. F. D. 5), Lebanon Co., Pa.; Lippincott, Walter Crispin, of No. 1707 Arch St., Phila., Pa.; Litchfield, Henry Nathan, of Colwyn, Delaware Co., Pa.; Little, John Forsyth, of No. 17 South 21st St., Phila.; Longcope, Warfield T., of Penna. Hosp., Phila.; Longwell, Benjamin James, of Brockwayville, Jefferson Co., Pa.; Loughead, Raymond B., of No. 2403 W. 3rd St., Chester, Pa.; Lovejoy, Edward Daland, of No. 3901 Chestnut St., Phila., Pa.; Lowry, Robert Spear, of No. 425 N. Wash. St., Butler, Pa.; Luman, Clark McEwen, of Speelman, Bedford Co., Pa.; Lutz, Loyal Graham, of No 2446 Wylie Ave., Allegheny, Pa.; McAvoy, Jere Francis, of Hazleton, Luzerne Co., Pa.; McCall, Willis Austin, of R. D. 45, Euclid, Butler Co., Pa.; McCausland, William Sumner, No. 33 Riverview Ave., Allegheny, Pa.; McCollin, James Garrett, Jr., of No. 404 N. 41st St., Phila.; McCorkle, Samuel C., of Pittsburgh, Pa.; McCrady, F. Manuel, of Glen Campbell, Indiana Co., Pa.; McDonough, Oscar T., of Broad Ford, Fayette Co., Pa.; McGuri, Thomas J., of Minersville, Schuylkill Co., Pa.; McKinnle, Lewis Hugh, of Jefferson Hosp., Phila., Pa.; McKnight, Geo. S., of No. 349 S. Highland Ave., Pittsburgh; McLaughlin, Charles Molten, of Markle, Westmoreland Co., Pa.; McLean, Earle McCormick, of Duke Center, McKean Co., Pa.; McLean, Newton R., of Bolivar, Westmoreland Co., Pa.; McMillan, Edwin Harbaugh, of Meyersdale, Somerset Co., Pa.; Manges, Willis Fastnacht, of No 1020 Samson St., Philadelphia; Marcellus, Marius B., of St. Timothy's Hosp., Roxborough, Phila., Pa.; Markel, James Clyde, of Columbia, Lancaster Co., Pa.; Martin, John Ross Smith, of Stewartstown, York Co., Pa.; Meigs, Edward Browning, of No. 1322 Walnut St., Philadelphia; Meisle, Frederic Aaron, of No. 150 Richmond St., Phila., Pa.; Mellinger, Kirby Smith, of Layton, Fayette Co., Pa.; Melvin, A. Merritt, of No. 3125 Montgomery Ave., Phila.; Mencke, John Bernhard, Jr., of No. 619 N. Franklin St., Phila.; Merrill, Benjamin Eugene, of No. 64 Highland Ave., Naugatuck, New Haven Co., Conn.; Mershon, Oliver Francis, of Easton, Northampton Co., Pa.; Mervine, Graydon Duncan, of No. 37 First St., Milton, North'd Co., Pa.; Miller, Ralph E., of Pine Grove, Schuylkill Co., Pa.; Mills, William W., of Braddock, Allegheny Co., Pa.; Mitchell, Atlee David, of Curry Run, Clearfield Co., Pa.; Mitchell, Charlotte Barnard, of No. 5012 Parks de Avenue, Phila.; Mock, David Clinton, of Pavia, Bedford Co., Pa.; Moffatt, Ralph Erskine, of City Hosp., Wilkes-Barre, Pa.; Moore, Frank Fisher, of Punxsutawney, Jefferson Co., Pa.; Moore, Wilson McKerney, of Crafton, Pa.; Mullison, Erwin D. S., of No. 2235 N. 16th St., Phila., Pa.; Murphy, John A., of St. Francis Hosp., Pittsburgh, Pa.; Murrin, Connell Edward, of McAdoo, Schuylkill Co., Pa.; Noble, D. H., of Muncy, Lycoming Co., Pa.; O'Donnell John Joseph, of Buckbee House, Elmira, N. Y.; Oglevee, Thomas Edison, of Dickerson Run, Fayette Co., Pa.; Ord, Edward Young, of Dravosburgh, Allegheny Co., Pa.; Orff, John Henry, Reading, Berks Co., Pa.; Palmer, Charles Thomas, Pottsville, Schuylkill Co., Pa.; Pasquale, Dottor Ferrari, of No. 514 6th Ave., Pittsburgh; Patton, Stewart Gill, of Paulton, Armstrong Co., Pa.; Peiffer, Charles Oscar, of No. 2800 Richmond St., Phila.; Penrod, Harry Hartzell, of No. 319 Water St., Johnstown, Pa.; Pettigrew, Richard R., of Jamaica Plain, Mass.; Petty, Orlando H., of Cadiz, Harrison Co., Ohio; Plymire, Isaac Swartz, Orwigsburg, Schuylkill Co., Pa.; Porteous, Edward Johnston, of No. 1627 Vine St., Philadelphia; Potter, Ellen Culver, of Woman's Hosp., Philadelphia; Read, John, of Huntingdon, Pa.; Reed, J. M., of Samaritan Hosp., Philadelphia; Register, Walter Roland, of Lansdowne P. O., Pa. (No. 126 N. Wycombe Ave.); Reiner, Alphons J., of No. 2821 Girard Ave., Phila.; Repplier, Sidney J., of Children's Seashore House, Atlantic City, N. J.; Ricciardi, Giovanni Battista, of No. 937 9th St., Philadelphia; Ricketts, Audley W., of Slippery Rock, Butler Co., Pa.; Riddle, Hugh Howard, of Penn. Hosp., Philadelphia; Ridgway, William Frederick, of No. 1101 Atlantic Ave., Atlantic City, N. J.; Rink, Charles E., of No. 713 Chestnut St., Indiana, Pa.; Riter, James Foster, of Ironton (S. 3rd St.), Lawrence Co., Pa.; Roberts, Mercedes A., of 335 Washington Ave., Phila.; Rogers, Pennock Browning, of No. 165 West 4th St., Winona, Minn.; Rohrbach, James Nathan, of Huffs Church, Berks Co., Pa.; Rouse, John, Jr., of Ogontz, Montgomery Co., Pa.; Rowles, John Franklin, of Kerrmoor, Clearfield Co., Pa.; Rucker, James Bernard, Jr. of No. 3327 Chestnut St., Phila., Pa.; Rupert, Mary Priestly Sheriff, of Woman's Hosp., 22nd and N. College Ave., Phila; Russell, Edmund, of Arthopraic Hosp., Phila.; Russell, William Stewart, of No. 3253 Locust St., Phila.; Ryon, Elijah William, Jr., of Georgetown, Sussex Co., Del.; Sammons, G. W., of Wattsburg, Erie Co., Pa.; Saylor, Clyde John, of Annville, Lebanon Co., Pa.; Schaefer, Charles Nicolaus, of Carrick P. O., Allegheny Co., Pa.; Schaubel, Charles Wesley, of No. 2342 E. Norris St., Phila.; Schill, Joseph John, of Lucinda, Clarion Co., Pa.; Schlindwein, George William, of Erie, Erie Co., Pa.; Schwab, Thomas Wesley, of No. 624 Orchard St., Allegheny, Pa.; Seaks, George Henry, of Shrewsburg, York Co., Pa.; Seidel, Charles K., of No. 442 N. 9th St., Reading, Pa.; Shannon, James Herbert, of Boston City Hosp., Suffolk Co., Boston, Mass.; Shearer, Wayne L., of No. 146 N. 5th St., Reading, Pa.; Sheldon, Charles Walton, of Jackson Summit, Tioga Co., Pa.; Shenberger, William J., of New Bridgeville, York Co., Pa.; Shrom, Ralph Edwin, of No. 999 N. 6th St., Phila.; Silverman, Jacob G., of No. 832 South St., Phila.; Smith, George Chester, of Moses Taylor Hosp., Scranton, Pa.; Snedden, Alexander Ross, of Coulter, Allegheny Co., Pa.; Sobernheimer, Harry B., of No. 4802 Umbria St., Manayunk, Phila., Pa.; Sprankle, Paul Darling, of Tarentum, Allegheny Co., Pa.; Stackhouse, Oswald C., of No. 43 N. Mills St., New Castle, Pa.; Starzynski, Theophilus A., of No. 2625 Penn Ave., Pittsburgh; Stein, Newton Henry, of Tamaqua, Schuylkill Co., Pa.; Stellwagen, Thomas Cook, Jr., of Media, Delaware Co., Pa.; Stembler, Harry Abraham, of No. 1210 N. 4th St., Phila.; Stephenson, Mary Eleanor, of Orient, Long Island, Suffolk Co., N. Y.; Stockberger, Harry Joseph, of Greensburg, Westmoreland Co., Pa.; Stokes, John Wallace, of East Hampton, Long Island, N. Y.; Stout, Philip Samuel, of 5th and Glenwood Aves., Phila.; Stover, Miles Edwin, of Bellwood, Blair Co., Pa.; Strayer, Walter Addison, of Roselia Maternity and Foundling Asylum, Pittsburgh, Pa.; Strickland, Charles Gunnison of No. 702 Sassafras St., Erie, Pa.; Strotz, Charles Martin, of No. 1642 N. 11th St., Phila.; Taylor, Jackson, of Pomeroy, Chester Co., Pa.; Teitsworth, I. Robertson, of Pensyl, Columbia Co., Pa.; Thompson, Marshall McClelland, of Clugston, Allegheny Co., Pa.; Tobey, Edgar Albert, of Poland, Mahoning Co., Ohio; Tracy, Martha, of No. 440 W. 8th St., Union, N. J.; Treat, Ernest Glenn, of East Chatham, Tioga Co., Pa.; Turner, Hunter Heiner, of No. 630 Lillie Ave., Braddock, Pa.; Van Kaathoven, Jean Jacques Abram, of University Hosp., Phila.; Waage, Frederick Oswin, of Pennsburg, Montgomery Co., Pa.; Waggoner, Le Roy Clifford, of Brownsville, Fayette Co., Pa.; Wagner, J. Fred., of No. 627 Swede St., Norristown, Pa.; Walker, Claude William, of No. 529 Vine St., Scranton, Lackawanna Co., Pa.; Wall, Porter Morrison, of Monongahela, Washington Co., Pa.; Walter, Henry V., of Bowmansville, Lancaster Co., Pa.; Weaver, Milton E., of No. 511 Lehigh St., S. Allentown, Pa.; Weicksel, Amelia, of No. 1612 Diamond St., Phila.; Weldemann, Frank Highley, of Morrisdale Mines, Clearfield Co., Pa.; Weirick, Ernest Carl, of No. 1276 State St., Harrisburg, Pa.; Wellner, John Edward, of Mercy Hosp., Pittsburgh, Pa.; Werts, William Charles, of No. 546 Cedar St., Reading, Berks Co., Pa.; Willock, J. Scott, of No. 414 W. North Ave., Allegheny, Pa.; White, J. Norman, of Preston Hollow, Albany, N. Y.; Whitfield, Finley K., of Braddock, Pa.; Widmyer, John Lawrence, of No. 2033 Spring Garden Ave., Phila.; Williams, Walter Edward, of Big Run, Jefferson Co., Pa.; Willis, Herbert, of No. 4036 Baring St., Phila.; Wilson, Robert Lewis, of Cassville, Huntingdon Co., Pa.; Wilson, Frank W., of No. 307 Reading Terminal, Phila.; Wilson, John J. G., of No. 306 S. 3rd St., Reading, Pa.; Wingate, Otis Lee, of No. 2326 Parrish St., Phila.; Winheld, Morris W., of No. 2220 Fairmount Ave., Phila.; Wood, Walter A., of Germantown, Phila., Pa.; Woods, Harry Robert, of Mercy Hospital, Pittsburgh, Pa.; Wright, George Jesse, of No. 117 Roup St., Pittsburgh, Pa.; Wunderle, Blanche Baker, of Edge Hill, Montgomery Co., Pa.; Zimmerman, Randall, of No. 701 Summerlea St., Pittsburgh, Pa.

GENERAL

Statement of Mortality in Chicago, Ill., for the Week Ending August 13, 1904, compared with the preceding week and with the corresponding week of 1903. Death rates computed on United States Census Bureau's estimated midyear populations of 1,932,315 for 1904 and of 1,873,880 for 1903:

	Aug. 13, 1904.	Aug. 6, 1904.	Aug. 15, 1903.
Total deaths, all causes	496	473	483
Annual death rate per 1,000	13.41	12.78	13.44
By sexes—			
Males	279	286	251
Females	217	187	232
By ages—			
Under 1 year	136	131	122
Between 1 and 5 years	42	42	55
Over 60 years	84	71	77
Important causes of death—			
Acute intestinal diseases	111	120	121
Apoplexy	6	4	16
Bright's disease	29	33	27
Bronchitis	4	6	5
Consumption	56	58	57
Cancer	22	16	21
Convulsions	9	11	8
Diphtheria	1	2	4
Heart diseases	41	34	25
Measles	1	0	1
Nervous diseases	16	23	17
Pneumonia	20	27	25
Scarlet fever	3	3	2
Suicide	12	5	6
Typhoid fever	8	7	8
*Violence (other than suicide)	52	39	40
Whooping cough	4	6	9
All other causes	100	79	91

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* Including 16 victims of the railroad wreck at Glenwood, which occurred July 13.

Phipps Memorial Home for Consumptives, Denver, Colo.—F. W. Henson has been appointed superintendent of this home and Mrs. Henson assistant superintendent.

First Chinaman Licensed to Practise in California.—Dr. Chang A. Holt, of San Francisco, has been licensed to practise medicine by the California board of medical examiners. He is a full blooded Chinaman, born in Canton twenty-six years ago, and studied medicine in San Francisco.

Dr. Holt, it is said, will return to his native land. He is a Christian.

The Bethesda Hospital Association of St. Paul, Minn., has taken out a permit to erect an addition to its hospital building at Ninth and Wacouta Streets, at a cost of $25,000.

Dannemora State Hospital Appointment.—Dr. Robert S. MacDonald, of Ithaca, has been appointed medical interne at the Dannemora State Hospital at a salary of $600 and maintenance.

An Honor to Professor William Osler.—King Edward VII has approved the appointment of Professor William Osler, of Baltimore, as regius Professor of Medicine at Oxford University, to succeed Sir John Burdon Sanderson.

Dr. Stanley R. Woodruff, of West Twenty-second Street, Bayonne, N. J., has been appointed assistant regimental surgeon, with the rank of captain, to succeed Captain John Broderick, who has been promoted, in the Fourth New Jersey National Guard.

Large Number of Prospective Practitioners in California.—The State board of medical examiners had 105 candidates appear on August 2nd for examination to practise medicine. This class is twice the size of any hitherto examined in that city. The examinations were held at the City Hall and were continued for three days.

Dr. Sidney D. Wilgus, a former resident of Buffalo, recently appointed chief examiner of the State Board of Alienists by the State Board of Lunacy, will be connected with the United States examiners at the port of New York. All immigrants who arrive at that port suspected of insanity, epilepsy, or imbecility are examined and if unfit to come in are returned to their own country. Dr. Wilgus will receive $5,000 a year, and has as assistants, Dr. George D. Campbell, of New York, and Dr. W. E. Sylvester, of College Point.

Smallpox in Zion City, Ill.—A visit to Zion City was made August 12th by Chief Medical Inspector, Dr. Hemon Spalding, of Chicago, who reports that at this place they have 16 cases of smallpox, all in an isolation hospital, under guard, two miles from the city. The cases are all of the mild type and are well cared for. Those who are known to have been exposed to the disease are under guard, some at their homes and others in tents a quarter of a mile from the isolation hospital. The authorities are disinfecting and isolating with intelligence, but refuse to vaccinate. Since June 1st there have been 29 cases in Zion City.

Antituberculosis Association in Newport, R. I.—The Newport Association for the Relief, Control, and Prevention of Tuberculosis was recently organized. The objects of the association are disinfection of houses and personal effects, district nursing, the dissemination of printed matter, the establishment of a sanitary camp, the provision of good food. On August 6th, a fête was held on the grounds of Edward J. Berwind's summer residence, *The Elms*, for the benefit of the association. The beautiful gardens of the estate were thrown open to the public, music was furnished by an orchestra and the band from the United States Army Post, and there were booths at which refreshments were served. The treasury of the association received about $3,000 as the result of the fête.

The New Mercy Hospital of Buffalo.—It is announced that the new Mercy Hospital will be opened on August 15th. The building is located on Tifft Street. The hospital grounds have a frontage of about 200 feet, and the entire cost of the premises, including repairs, amounted to about $14,000. The Mercy Hospital Aid Society has been formed for the purpose of paying this debt, and has done much already in that direction.

St. Joseph's Hospital, Baltimore, Md., at Caroline and Oliver Streets, is to be enlarged by an annex, 52 by 116 feet, three stories high. This annex will be connected to the north wing of the present buildings by a one story wing, which is to be 22 by 82 feet. In the basement of the annex there will be a preparation room, operating room, dining room, and nurses' room. On the first floor there will be seven ward rooms, a parlor, office, clothes room, and hall. The second floor will contain ten nurses' rooms, a library, lecture room, parlor, and kitchen. A large ward for contagious diseases will occupy the entire third floor. The new wing will contain a room for old men and another for nurses.

Smallpox After a Wake in Adams, Mass.—Following a wake held over the body of a North Adams, Mass., factory girl, on August 3rd, a report was filed with the North Adams Board of Health that the girl died of smallpox. This report was followed by the discovery of five cases of smallpox in that city. The board of health ordered a general vaccination and established a hospital for taking care of the ill in a tenement house within the city limits. The seizure of the building by the board of health and the calling out of police reserves to establish quarantine over houses where cases had been found and others suspected, caused a great commotion in North Adams. The girl was ill but five days. Her attending physician suspected smallpox, but was not certain. The girl died and not until after the wake had been held was the case reported. Hundreds had been exposed to contagion. On August 4th the North Adams hospital reported a well developed case in one of the wards in a laundry clerk, who had been there for several days. He was taken to an apartment house where another case had been found. This building was converted into a hospital. It is well within the city limits and surrounded by other houses. On the 6th instant the father of one of the afflicted became ill with smallpox and later in the day two other cases were reported to the board of health, which the citizens are naturally urging to secure some isolated location for contagious cases.

Pith of Current Literature.

BERLINER KLINISCHE WOCHENSCHRIFT.

June 27, 1904.

1. The Knowledge of the Physician, By E. BUMM.
2. Action and Limitations of Antibacterial Sera, By SOBERNHEIM and JACOBITZ.
3. Effect of Endofaradaization and Endogalvanization of the Stomach Upon Secretion, Motility, and Sensation, By A. BORRI.
4. Agglutination of Typhoid Bacilli in Icterus and Diseases of the Liver, By H. KAEMMERER.
5. Physiological Action of Radium, By J. WOHLGEMUTH.
6. Treatment of Renal Inflammations (*Concluded*), By G. KOVESI, and W. ROTH-SCHULZ.

3. **Endofaradaization of the Stomach.**—Borri points out the different views taken by previous writers on this subject. He has himself made 106 examinations during the past few months, some of them on persons with healthy gastrointestinal tracts. Both the faradaic and galvanic currents appear to be without influence upon gastric secretion, slight changes in hydrochloric acid and pepsin being referred to the electric procedure. The atonic stomach does not respond as readily to the faradaic current as the healthy organ, as far as motility is concerned. The negative pole inserted into the stomach, and galvanism used, had an influence upon sensation, pain being decidedly diminished. This action of the galvanic current, the author does not explain.

4. **Agglutination of Typhoid Bacilli.**—Kaemmerer has examined the blood in fifty cases of jaundice with reference to the agglutination of typhoid bacilli. The author explains the agglutination by saying that in none of the cases the agglutination had to be accounted for by the existing jaundice. He regards the phenomenon as due to the presence in the serum of the products of bacteria related to the typhoid bacilli. He regards still the agglutination test as one pathognomonic in the diagnosis of typhoid fever.

5. **Radium.**—Wohlgemuth exposed a number of proteids, carbohydrates, and fatty bodies to the influence of radium in a thermostat, for the purpose of discovering its action upon them. The results were entirely negative. No special action upon lecithin, as has been claimed, could be demonstrated. He also exposed portions of a tuberculous lung and of a healthy lung to the radium rays and found that the former gave up in solution four times as much oxygen as the latter. The author explains this by the fact that under the influence of radium, the action of autolytic ferments in organs is more rapid than when not so exposed.

6. **Treatment of Renal Inflammations.**—Koevesi and Schulz conclude that the main object of treatment of inflammatory diseases of the kidney is to provide against the retention of urinary elements in the body. Probably the retention of nitrogen is an important element in the production of uræmia, while the retention of the salts and water is the cause, not the result, of the origin and extension of dropsy. The authors have conducted an elaborate series of dietary tests and conclude that nitrogen is not to be immediately excluded from the diet of all patients suffering from renal diseases, but in each case careful examinations must be made of the ability of the kidneys to excrete nitrogen. The authors discovered that increasing dropsy is always accompanied by retention in the body of sodium chloride, which diminishes the organism's capacity of excreting water through the skin and lungs, for the tissues of the body retain their water the greater the amount of sodium chloride they simultaneously contain. For this reason, the authors advise giving renal patients at least half a gramme of table salt to every 100 ccm. of urine they excrete, to test the retention of the salt.

Excessive administration of fluids does not cause a solution of the urinary elements, but brings about additional hydræmia. The moderately severe cases must always have their diets regulated. If retention or comparative anuria has appeared, diaphoretics, diuretics, and catharsis are to be employed. The authors found that from ten to twenty per cent. of the sweat is made up of urinary constituents. Diaphoresis should be limited to anuric and dropsical cases. Catharsis should be more generally practised than it is. Diuresis is not as efficient in renal cases as in healthy persons and evokes mainly an excretion of soluble elements of the urine.

ZENTRALBLATT FUER GYNAEKOLOGIE.

June 25, 1904.

1. Position of the Arms in Narcosis, By R. PUSCHNIG.
2. Pads Weighted to Prevent Their Being Left Behind in the Abdomen After Laparotomy, By O. ROSSEL.
3. Technics of Laparotomy, By S. GOTTSCHALK.
4. A Modified Bullet Forceps, By PETERS.

1. **The Arms in Narcosis.**—Puschnig recommends, in vaginal operations, placing the arms across the chest and keeping them in position by winding the lower part of the sheet under them. In laparotomies, the arms are crossed under the back. In this manner, they are kept from hanging over the edge of the table with the possible result of a pressure paralysis.

2. **Weighted Pads.**—Rossel uses pads in abdominal work which have a lead piece weighing half an ounce attached to the pad by a string about six inches long. When the pad is placed in the abdominal cavity, the lead weight is thrown as far from the wound as the string will permit.

3. **Laparotomy Technics.**—Gottschalk proposes to carry out the technical part of an abdominal operation as much as possible outside the peritoneal cavity. For this purpose he suggests closing the wound except for a very small opening as soon as the uterus or tumor is outside of the abdomen. The weight of the tumor facilitates traction and ease of reaching and securing the pedicle.

July 2, 1904.

1. Prevention of Fever in the Puerperium, By A. Mueller.
2. Prevention of Fever in the Puerperium, By W. Bokelmann.
3. Abnormally Long Retention of a Fœtus Dead at Full Term, By J. Goldenstein.

1 and 2. **Prophylaxis of Fever in the Puerperium.**—Mueller and Bokelmann take up this subject in answer to Zweifel. The former holds that Zweifel's view that blood clots in the vagina are usually the cause of fever is not entirely correct, as coagula in the uterus can also bring about a rise of temperature. He is accustomed to remove these by means of his "rubbing catheter," which irrigates the uterus at the same time that it acts as an agent against atony of the organ. Mueller also regards constipation during the puerperium as a factor in the causation of fever which immediately disappears after a liberal dose of oil and low enemata.

Bokelmann attacks Zweifel's theory vigorously and contends that the latter has brought no proof to show that coagula in the vagina evoke temperature by their putrefaction. He regards the newly delivered woman as one not to be touched or handled and believes that by Zweifel's method infection is the more likely to occur by the opening up of raw surfaces. He stigmatizes Zweifel's suggestion as a decidedly backward step in obstetrical asepsis.

3. **Retention of Dead Fœtus.**—Goldenstein reports a case in which the fœtus had been dead for three months without causing any disturbance. In the absence of any labor pains, he extracted the child. There was no hæmorrhage. The placenta was dry and necrotic. The puerperium was normal. The patient, it was found, was suffering from chronic malarial poisoning.

ZENTRALBLATT FUER CHIRURGIE.

June 25, 1904.

1. Euguform in Surgery, By G. Lotheissen.
2. Movable Plastic Flaps, By Steinthal.

2. **Movable Plastic Flaps.**—Steinthal records the case of a child who had sustained crushing injuries of the skin of the knee and thigh. Skin grafting did not seem likely to succeed, so a flap was taken from the thorax and attached to the left leg, the leg and chest being held together in a plaster of paris cast for eleven days. The cast was then removed, the flap separated and attached to the right leg, where it healed perfectly. The author recommends this general method in instances in which the place of removal and application of skin grafts are not favorably situated with reference to each other.

July 2, 1904.

1. First Bandage on the Battlefield, By W. J. van Stockum.
2. Opening the Arch of the Ribs for Impermeable Stricture of the Œsophagus, By Willy Meyer.

2. **Impermeable Stricture of the Œsophagus.**—Meyer reports a complicated case of œsophageal stricture in which the retrograde passing of a sound was impossible. The resection of the ribs, however, which was undertaken to facilitate the procedure, demonstrated the great usefulness of this measure. Meyer suggests its performance for resection of the stomach in cases in which that operation is otherwise technically impossible.

ZENTRALBLATT FUER INNERE MEDIZIN.

July 9, 1904.

1. Gastric Tumors at the Menopause, By A. Borri.

1. **Gastric Tumors at the Menopause.**—Borri reports twelve cases, in each of which, during or immediately after the menopause, a tumor of the stomach developed. He thinks the climacterium is an ætiological factor in the development of these neoplasms, the general circulatory disturbances of this period contributing, as Virchow maintained, to the origin of neoplasms of the stomach.

PRESSE MEDICALE.

June 15, 1904.

1. Furnishing Towns with Drinking Water, By Courmont.
2. Prophylaxis and Treatment of Deafness, By De Lavarenne.
3. Clinical Value of the Urohæmatin Reaction, By Dehérain.

2. **Deafness.**—De Lavarenne in this second paper describes with the assistance of photographs and diagrams his apparatus for conveying the sulphurous vapors of the Luchon waters to the ear and nasopharynx. His results have been excellent throughout his fifteen years' experience, particularly in the obstinate arthritic cases. An important adjuvant to the treatment is to keep the patient's bowels open. The iodides, taken at intervals, are valuable. Patients should avoid the seaside, at least for some time after the local treatment.

3. **The Urohæmatin Reaction.** — Dehérain states that this reaction is not pathognomonic of renal disease, but exists in many old subjects, in heart disease, in chlorosis, erysipelas, scarlatina, typhoid fever, and above all during convalescence. It is always noted in polyuria, in pale urine, and in urine of low density, if above 1,002. The reaction can be made to appear and disappear by concentrating or diluting urine. (The reaction is obtained by allowing a little nitric acid to trickle into the sample of urine under examination.)

June 22, 1904.

1. "Seborrhœoids," By Sabouraud.
2. A New Electric Sterilizer for Surgical Instruments, By Wiart.

1. **"Seborrhœoids."**—Sabouraud has given this name to a large class of skin diseases. In a former article he discussed the relation between microbacillary seborrhœa and pityriasis. He now examines impetigo, psoriasis, pityriasis rosea, and eczema, demonstrating their essential differences and insisting that their resemblances are imaginary.

2. **An Electric Sterilizer.**—Wiart has devised an electrothermic sterilizer, which does not rust instruments, is portable, cheap, and is arranged with a partition so that compresses, etc., may be

boiled simultaneously. Gas or alcohol may be used when the electric current is not obtainable.

June 25, 1904.

1. Treatment of Pruritus, By Trémolières.
2. Milk. Causes of Its Infection, By Diffloth.

1. **Treatment of Pruritus.**—Trémolières prescribes treatment primarily according to ætiology. Among causes of pruritus he enumerates: the repair of wounds, the unequal pressure of clothing, parasites, bad personal hygiene, cold, heat, atmospheric pressure; depression of the nervous system (senile pruritus), functional disturbances and lesions of cutaneous tissues, particularly varices, alterations in the blood, poisoning by alcohol or other drugs or by certain foods, such as pork and fish; indigestion, constipation, gout, obesity, Bright's disease, hepatitis, icterus; and, finally, definite lesions of the nervous system. Prophylaxis, therefore, is of the greatest importance. As internal remedies, carbolic acid in pills of one and a half grains each, gelsemium, valerian, atropine sulphate or valerianate, arsenic, lactic acid have all been used with varying success. Externally, hot lotions, twice daily, are efficacious with a mild ointment followed by a dusting powder. A favorite French formula for a lotion will be found in this week's Therapeutical Notes. Starch and salol mixtures are contraindicated. Electricity, in its various forms, is coming into common use. Scarification is sometimes successful and relief has followed resection of a nerve.

June 29, 1904.

1. Hepatic Cirrhosis and Appendicitis. By Tuffier and Mauté.
2. Abscesses of the Liver in Typhoid Fever, By Guinard.

1. **Hepatic Cirrhosis and Appendicitis.**—Tuffier and Mauté recall that there are two forms of recognized "appendicular liver," a purulent, infectious hepatitis, and a toxic hepatitis, characterized by degeneration of the parenchyma, neither of which is at all rare. They consider that cirrhosis is another sequela which deserves careful study. They give details of a case in a boy, aged sixteen years, who died of acute appendicitis. The necropsy disclosed all organs save the appendix and liver to be in a healthy condition. The liver showed an early but unmistakable cirrhotic process. The personal history of the boy had been excellent. The writers consider their observation to make a strong argument for early operation in appendicitis.

SEMAINE MEDICALE.

July 6, 1904.

Retention of Urea in the Sick Body, By Achard and Paisseau.

Retention of Urea.—Achard and Paisseau leave to one side the questions of the formation of urea, its proportions in the body and in the urine, and make an exhaustive study of what becomes of urea when retained, how it is eliminated, how it is sometimes retained, and the consequences of its retention. They conclude that renal causes of retention are the most active, then circulatory causes, which act by hindering the passage of urea from the tissues into the blood, or, from the latter to the emunctories, and, finally, interstitial causes which increase the formation of urea in the tissues. The urea which cannot reach the emunctories, accumulates in the blood, particularly in uræmia when it may exist in tenfold the normal amount; but it is not the cause of uræmia, but merely a witness to the retention of other more toxic bodies. The consequences of retention are mainly physical, the urea increasing the blood mass and raising blood pressure. The urea takes with it salt in solution into the tissues, thus producing increase in weight and œdema. The presence of urea about the cells probably modifies their nutrition and may cause the production of other more toxic bodies. The retention of urea produces symptoms much resembling those of chloridæmia, although salt, while quite as unassimilable as urea, is indispensable to the organism, while urea is normally expelled as quickly as possible.

LYON MEDICAL

June 12, 1904.

A Pin in a Bronchus. Extraction by Forceps with Lower Bronchoscopy, By Garel and Durand.

Extraction of a Pin from the Bronchus by Lower Bronchoscopy.—Garel gives a dramatic and amusing account of his efforts to remove a large steel, glass-headed pin from a small bronchus, the patient being a seamstress, twenty-four years of age. Half a dozen attempts were made by the upper route through the mouth and four by the lower after tracheotomy and general anæsthesia, before the pin was regained. Garel thinks the upper route should be tried with greater patience than he manifested, this being his first experience. Local anæsthesia should be induced by deep swabbing with a 10 per cent. cocaine solution. Atropine before the operation is useful in subduing secretion. In combination with the x rays we have now a perfectly safe substitute for the always fatal bronchotomy.

ROUSSKY VRATCH.

June 12, 1904.

1. On the Physiological and Pathological Relations of Radium, By E. S. London.
2. A New Method of Vaporizing Medicinal Substances (*Concluded*), By E. Schatsky.
3. On the Diagnosis of Cancer of the Stomach (*Concluded*), By Z. F. Orloffsky.
4. On the Changes Occurring in the Parenchyma of the Organs Under the Influence of Hepatolytic Serum. A Preliminary Communication, By A. Z. Sivre.
5. Observations of White Blood Cells in Typhoid Fever and in Some of Its Complications (*Concluded*), By V. F. Petroff.

1. **Radium Emanations.**—London describes as emanations of radium a gas which is given off by this substance. This gas differs from all other gases known hitherto by the fact that it communicates radioactivity to bodies with which it may come into contact. It is also noteworthy, because it is unstable, and when inclosed in a vessel, helium may be found in its place. The author found that radium emanation could communicate radioactivity to living organisms. A mouse kept for one or two hours in a vessel containing radium emanations begins to exhibit radioactivity. Living organisms were, therefore, endowed with the same faculties of secondary radioactivity as non-living objects. The effect of the

radium emanations upon the skin was found to be analagous to the action of radium rays. The most intense effect was obtained by means of cotton saturated with radium emanations. The author suggests that pharmacists should prepare such cotton for general use, and that this product might be obtained in large quantities simply by exposing cotton to emanations from 5 or 10 mgms. of radium. For internal administration, London suggests sugar saturated with radium emanations, but admits that we are still in the dark as to the therapeutic effects of radium administered internally. Radium emanations are fatal after a certain time to mice, frogs, and other animals, and London warns against an indiscriminate use of this gas for inhalations in lung diseases. Radium emanations destroy the red corpuscles in a test tube of defibrinated blood. They kill the spermatozooids in an emulsion of the semen of the guinea pig. They do not, however, affect the ferments of the stomach and of the pancreas to any extent, while they are markedly destructive for the bacteria which are found in the intestinal tract.

2. **Tryptophan Reaction in Cancer of the Stomach.**—Orloffsky denies the statement of Erdmann and Winternitz that tryptophan reaction occurs only in malignant disease of the stomach. In 29 cases observed by Orloffsky the reaction was found present in two instances of chronic gastritis, and in 2 cases of benign dilatation of the stomach, in fasting patients. In the last two cases no reaction could be obtained after a test breakfast. The author admits, however, that this reaction occurs in cancer of the stomach relatively more frequently than in benign affections of this organ. Yet he does not think that its presence is of value in diagnosis, and believes that the absence of hydrochloric acid and the presence of lactic acid are more important. Thus, in 12 cases of cancer with or without dilatation, 10 showed absence of hydrochloric, and 11 presence of lactic reaction, while the tryptophan reaction was only observed in four cases, in two of which it occurred only on fasting. He concludes that the presence of this tryptophan reaction in cancer of the stomach is a mere coincidence.

4. **Hepatolytic Serum.**—Sivre concludes as follows after a series of experiments on animals with hepatolytic serum, prepared according to the now well-known principles of Bordet, Belfanti, and Carbone, etc.: Hepatolytic serum is a specific substance, acting upon the cells of the liver. Under its influence the protoplasm and the nucleus of the liver cells are destroyed by the same process which has been observed by Metchnikoff in the digestion of red blood cells by leucocytes. This serum acts not only upon the liver alone, but also on the other organs, producing in these a series of degenerative changes.

GAZZETTA DEGLI OSPEDALI E DELLE CLINICHE.

May 22, 1904.

1. On the Presence of Kühne's Peptone in the Urine, By L. BORELLI.
2. Some Considerations on the Sugar Producing Powers of the Blood in Health and Disease, By R. VIGLIANI.
3. On the Mineral Waters of Recoaro, By A. DE GIOVANNI.
4. A Contribution to the Study of Malignant Tumors of the Maxillary Sinus, By V. INGRALDI.
5. Variations in Symptoms of Cancer of the Stomach, By G. MARELLI.

1. **Kühne's Peptone in the Urine.**—Borelli concludes, after an experimental study of the urine in various diseases as regards the presence of peptone, that the nutritive processes are so altered in certain febrile diseases that abnormal forms of proteids appear in the circulation, poison the organism, produce fever, and are finally gradually eliminated from the blood by means of the kidneys. Borelli agrees with Ito that Kühne's peptone may be found in the urine, especially in those cases where there is an absorption of proteid material from the tissues themselves.

2. **The Sugar Producing Power of the Blood.**—Vigliani concludes from a series of experiments that the blood possesses an intrinsic diastatic power, which is shown by the fact that when phloridzin is injected into the circulation the amount of sugar is increased to a larger degree than is warranted by the amount of the glucoside injected. It is very probable that the injection of phloridzin increases the sugar producing power of the blood. Similar observations were made by the author in phosphorus poisons, in which there was an increase of the glucose contained in the blood, and in which the action of the hæmodiastatic ferment was more energetic than normal. In summing up the author says that when metabolism is altered, as, for example, by the injection of phloridzin, or the administration of phosphorus, we obtain an increase in the sugar producing power of the blood serum. This increase varied in different individuals, but was always observed in these experiments.

4. **Malignant Tumors of the Maxillary Sinus.**—Ingraldi relates the case of a woman, aged sixty-one years, who developed a tumor of the maxillary sinus, which on examination proved to be a fibrosarcoma. Two years before admission the patient began to suffer from occlusion of the left nostril, together with a slight pain in the left superior maxillary region. Some polypoid masses were removed from the left side of the nose, and subsequently the patient suffered from repeated and copious hæmorrhages. On careful examination the left nasal cavity was found to be occluded by a new growth, while transillumination showed the presence of a tumor in the antrum, which being removed, the patient made a good recovery. The important features of this case are the size of the tumor, which occupied the entire cavity, the severe hæmorrhages, and the favorable result.

5. **Symptoms of Cancer of the Stomach.**—Marelli discusses the variety of symptoms presented by patients with cancer of the stomach. Dyspepsia, dilatation of the stomach, gastric atrophy, chronic gastritis, gastric ulcer, stenosis of the pylorus, localized peritonitis, etc., all have symptoms which resemble beginning cancer of the stomach, and even anæmia, leucæmia, ma-

laria, hysteria, and other diseases may simulate cancerous involvement of the gastric tissue. The presence of a tumor is always a diagnostic sign of great value, especially when accompanied by other characteristic symptoms. It must be remembered, however, that cancer of the stomach is a disease which varies so greatly in its manifestations, that it cannot be described under a single schedule of symptoms. In support of this the author cites four cases, which are peculiar in their symptomatology.

In the first case reported none of the characteristic changes was found on examination of the gastric juice, and the picture of the disease greatly resembled anæmia due to ulcer of the stomach. There was, however, a change of taste; an aversion for meat; an absence of the characteristic shooting pain; etc.; which suggested something else than ulcer. The second case was noteworthy on account of the absolute absence of vomiting which logically would be expected in this instance, on account of the pyloric stenosis. In the third case there was a very marked anæmia, but no definite signs on the part of the stomach, except a slight difficulty in digesting solid food and a continuous dull pain between the scapulæ.

In the fourth case, there was an intermittent febrile movement, a very rare symptom in cancer of the stomach. The fever was due probably to the toxines of cancer, but until we know the cause of carcinoma, we cannot tell the true cause of this rise of temperature.

RIFORMA MEDICA.

June 8, 1904.

1. Negri's Body in the Causation and Diagnosis of Rabies, By L. D'Amato.
2. A Case of Incipient Primary Adenocarcinoma of the Appendix. Producing Repeated Attacks of Appendicitis, By F. Neri.
3. Pseudotuberculosis Bacilli in the Pharynx of Healthy Persons, By A. Decimoni.

1. **Negri's Bodies in Rabies.**—D'Amato examined 53 animals with rabies with reference to the presence of Negri's bodies. He found these structures to be constantly present in these cases. In one dog inoculated experimentally with rabies he found a few Negri's bodies in the cornu Ammonis, in the brain, and in the cerebellum. The number and the size of Negri's bodies does not seem to be in relation with the severity of the disease. In most cases Negri's bodies were found to be intracellular, but in some cases they were found outside of the cells. These bodies stain with most methods, taking the acid stains or dyes. It is impossible to determine positively as yet whether they contain a nuclear substance. Negri's bodies are found in large numbers in the spinal ganglia and in the Gasserian ganglion, especially in rabbits, but, as a rule, they are very small. In addition to Negri's bodies the ganglion cells contain other structures of irregular shapes which also stain with acid dyes. These cells also contain small bodies which may be regarded as red blood cells that have penetrated into the ganglion cells. With iodine solutions Negri's bodies stain a yellow color and assume the same tint as the red blood cells. With potassium ferrocyanide, hydrochloric acid, and alcohol these bodies assume a bluish yellow color identical with that taken by the nuclei of nerve cells.

2. **Cancer of Appendix Giving Rise to Appendicitis.**—Neri reports the case of a woman aged 29 years, in whom cancer of the appendix gave rise to a chronic inflammation which resulted in repeated attacks of appendicitis. The appendix was about 12 cm. long with a congested and thickened peritoneal covering. On opening it longitudinally, the walls were found thickened and in places of a cartilaginous consistency. A thickening of the walls almost completely obstructed the lumen at about the middle of the appendix, and on microscopical examination it was found that this was the site of an incipient cancer. The author collected 12 cases of primary cancer of the appendix from literature. In these, the majority occurred in persons under 30 years of age, and in most cases the tumor was accompanied by chronic appendicitis. It is possible that some cases of cancer of the cæcum which have been believed to be primary were in reality secondary to latent primary carcinomas of the appendix. The diagnosis of cancer of the appendix was impossible in these cases, without direct examination of the parts, and even then microscopical examinations are often necessary before the first clue can be discovered.

3. **Pseudotubercle Bacilli in the Pharyngeal Secretion of Healthy Persons.**—Decimoni found that pseudotuberculosis bacilli occur in the pharyngeal secretion of healthy persons, and particularly upon the surface of the tonsils. The presence of these germs is not frequent, but yet is not very exceptional. In such cases it would be advisable to inoculate these bacilli into animals before making a positive diagnosis of tuberculosis.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

August 13, 1904.

1. The Permanent Preservation of Anatomical, Embryological, Pathological, and Bacteriological Specimens. By W. M. L. Coplin.
2. What Credit, If Any, Shall be Given the Holders of Baccalaureate Degrees for Admission to Advanced Standing in Medical Schools? By Henry L. Taylor.
3. The Value of the Conversational Method of Medical Instruction. The "Students' Conference," By Joseph McFarland.
4. The Elective System in Medical Schools. By D. N. Eisendrath.
5. The Teaching of Materia Medica in Medical Schools, By Torald Sollmann.
6. Clay Modeling in the Study of Anatomy, By Arthur P. Herring.
7. A Plea for a Standard Medical Curriculum, By George M. Kober.
8. Case of Tetanus Successfully Treated by Aspiration of the Cerebrospinal Fluid and Injection of Morphine Eucaine and Salt Solution, By John B. Murphy.
9. The United States Public Health and Marine Hospital Service. Dr. Hamilton's Administration (1879-1891). (*Continued*).
10. Travel Notes. IV. Leprosy in the Hawaiian Islands. The Proposed Establishment of a Government Bacteriological Institute, By Nicholas Senn.

8. **Tetanus.**—Murphy's patient, a boy aged eight years, developed tetanus six days after having been wounded in the foot by broken glass. The wounds were now for the first time properly cleaned and disinfected. On the seventh day of his illness the patient received three full doses of antitetanic serum. He did not improve. Two days later, through a lumbar puncture, 16 cubic centimetres of turbid cerebrospinal fluid were aspirated and 3 cubic centimetres of morphine eucaine solution were injected. The patient slept for four hours immediately following the injection. Recurrence of unfavorable symptoms compelled the repetition of the aspirations and injections six times in the next eight days. By the twentieth day the patient had recovered. At each injection the boy received $^1/_{75}$ of a grain of morphine and $^3/_{50}$ of a grain of eucaine. The author believes that future experience will show that larger doses than those he used can be employed with benefit. The aspirations and injections could also be repeated with greater frequency. The author proposes to treat cerebrospinal meningitis as follows: "First, make a drill puncture of the cranium over the lateral ventricle; insert a fine needle until the cerebrospinal fluid escapes; second, insert a needle into the spinal canal in the lumbar region and allow a normal salt solution to flow, under hydrostatic pressure, from the needle in the right ventricle, down through the foramen of Magendie and the spinal canal, to, and out of the needle in the lumbar area. This can be accomplished on the cadaver, as I have demonstrated. Permanent drainage of the cerebrospinal canal has been almost uniformly fatal, and should not be instituted."

BOSTON MEDICAL AND SURGICAL JOURNAL.

August 11, 1904.

1. Operations on the Stomach, with Report of Cases (*To be continued*), By JOHN C. MUNRO.
2. Malpositions of the Uterus; Their Causes and Treatment, By D. J. BROWN.
3. Subperiosteal Fractures of the Humerus in Children, By J. S. STONE.
4. The Physical Relationship of Finsen Light, Röntgen Rays, and Radioactivity, By WALLACE C. SABINE.

2. **Malpositions of the Uterus.**—Brown, after citing the various causes of malpositions of the uterus, proceeds to the consideration of their treatment. If operation is refused or is not called for the pessary if properly used will give, usually, satisfactory results. For the operative relief of retroversion the method of Goelet is a step in the right direction. For antiflexion dilatation and curettage are not adequate measures. Either Dudley's operation, or one of its modifications, should be employed. The author discusses at some length the best procedures for the treatment of prolapse of the uterus. He is opposed to attempts to create artificial supports. The best operations are those that suitably modify the existing ligaments.

3. **Fractures of the Humerus.**—Stone reports five cases of fracture of the humerus in children. The diagnosis is not easy without the aid of the x ray. Two of the cases he reports were at first thought not to be fractures. A study of these cases teaches that when after a fall on the arm or shoulder children are unable to abduct the arm but present none of the other signs of fracture or dislocation and are able to move the arm in other directions, most careful examination should be made to determine localized tenderness anteriorly just below the head of the humerus, together with a slight irregularity in the contour of the bone at the same point. These signs are sufficient to establish the diagnosis of fracture of the surgical neck, and should deter one from further attempts by rough handling to secure crepitus or mobility.

4. **Finsen Light, Röntgen Rays, and Radioactivity.**—Sabine, who is assistant professor of physics at Harvard, discusses the relationship between Finsen light, the Röntgen ray, and radioactivity from the physicist's point of view. These three physical processes are electrical—not merely the Röntgen rays and the radiations of radioactive substances, but also the ultraviolet light. Their first effect is that of electrical violence upon the atom, which results in an increased atomic energy, and in the case of some of the atoms of partial dismemberment, and a resulting ionization. The great physiological efficiency of the Röntgen rays suggests that ionization is the more important process. The greater part of the study of these processes has been carried out on gases, while the physician is concerned with their effects on liquid and solid substances. Some work has been done in this field, and ionization results obtained. If there is to be, corresponding to the rapidly growing physiological chemistry, a physiological physics, there lies here in the ionization of liquids a field which the pure physicist, as such, is not likely to attack for some time to come.

MEDICAL RECORD.

August 13, 1904.

1. The Success of Physical Remedies in Pulmonary Phthisis as an Index of Their Value in Other Chronic Diseases, By SIMON BARUCH.
2. Cerebrospinal Meningitis, with Remarks on Its Diagnosis, Prognosis, and Treatment, By LOUIS FISCHER.
3. Associated Movements of the Upper Eyelid and Lower Jaw, By EDWARD B. COBURN.
4. Acute Cholecystitis Simulating Appendicitis—Two Illustrative Cases. By ARTHUR L. CHUTE.
5. The Treatment of Syphilis by Hypodermic Injection of Mercury; a Preliminary Report, By LAWRENCE T. ROYSTER.
6. A New Pathogenic Throat Organism. By B. H. STONE.

1. **Physical Remedies.**—Baruch asserts that at the Montefiore Home very good results have been obtained by treating tuberculous patients with hydrotherapy. The author is of the opinion that if the same general method was employed in the treatment of many chronic diseases equally brilliant results would be obtained. The way the baths are given at the Montefiore Home is described in detail.

2. **Meningitis.**—Fischer reviews the general subject of cerebrospinal meningitis. So far as effective treatment is concerned the author believes that our only hope lies in the discovery of an antimeningococcus serum. His advice regarding treatment is that which is to be found in the books. He

mentions that it has been proposed to treat the disease by drainage, with or without injections of various substances into the spinal canal.

4. **Acute Cholecystitis.**—Chute reports two cases which closely simulated appendicitis. The moral to be drawn from these and similar cases is: "In dealing with supposed cases of either of these two most common intraabdominal inflammations, one should always bear in mind the closeness with which they may simulate each other. When at operation the state of the organ investigated does not satisfactorily account for the patient's condition the other organ should always be examined. The lack of this precaution has, in at least one recorded case, led to the removal of a slightly diseased appendix, while, as the autopsy showed, the symptoms had been caused by a gangrenous gallbladder which had not been discovered."

5. **Syphilis.**—Royster believes that the best way to give mercury in syphilis is by hypodermic injection and that the best salt to use is the bichloride. The author's routine follows: Commence with 5 minims of a two per cent. solution and increase up to 10 or 12 minims, and then change to 5 minims of a four per cent. solution and increase up to about 10 minims and make this the maximum dose. The more concentrated the solution, within limit, the less will be the pain and irritation. With the eruption well out use an injection every day until the eruption has disappeared; but when the eruption is slight or seen very early, every other day usually suffices. The intervals are gradually lengthened until, by the end of about ten months, only one injection is given each week, and this is maintained until the end of two and one half or three years.

6. **A New Organism.**—Stone's new organism produces a sore throat which somewhat resembles a mild diphtheria. At times no membrane is produced. This new diplococcus produces marked constitutional symptoms which come on suddenly and last only for a short time. The staining and growth characteristics and the results of inoculations of animals are described.

MEDICAL NEWS.

August 13, 1904.

1. Report of a Case of Ruptured Ectopic Gestation,
   By John W. Coe.
2. Some Interesting Obstetric Experience.
   By J. J. Gurney Williams.
3. Chronic Mastitis and Diffuse Fibroadenoma of the Breast,
   By B. Farquhar Curtis, and Francis C. Wood.
4. Hereditary Syphilis, By Howard S. Kinne.
5. Difficult Cases of Infant Feeding,
   By Theron Wendell Kilmer.
6. Transition of Obsessions to Delusions; with Report of Two Cases, By Alfred Gordon.
7. Moot Points in the Treatment of Fractures,
   By Martin W. Ware.

1. **Ectopic Gestation.**—Coe's case is remarkable on account of the difficulty it presented to diagnosis. A married woman, aged twenty-nine years, with a history of two attacks of gravel, was suddenly seized with pain in the lower abdomen, nausea, vomiting, and marked weakness. There were no localizing symptoms and repeated physical examinations resulted negatively. The urine had a high specific gravity, was over acid, and contained albumin. The blood count showed a reduction of about thirty per cent. in both the red cells and in the hæmoglobin. The white cells numbered 21,000. The diagnosis remained in doubt for nearly one month, during which time appendicitis, gravel, and ectopic gestation, were considered as possibilities. Operation disclosed a ruptured extrauterine pregnancy. The patient made a good recovery.

2. **Obstetric Experiences.**—Williams reports six complicated obstetric cases treated by him under very unfavorable conditions among the very poor and very dirty.

3. **Fibrosis of the Breast.**—Curtis discusses the clinical history and operative treatment of chronic mastitis and diffuse fibroadenoma of the breast, Wood the pathological anatomy of these conditions. (a) Curtis reports fifteen cases on which he has operated. While it is true that typical cases of chronic mastitis and diffuse fibroadenoma are easily differentiated yet the two conditions may coexist in the same breast and at times it is impossible to distinguish between inflammatory process and new growth. A study of the cases justifies their clinical classification into three groups: (1) Moderate induration, limited or general. Expectant treatment is often justified. (2) Localized mass showing characteristic nodular induration. The mass should be removed and the consent of the patient should be obtained to remove the whole breast if during operation this seems desirable. (3) Extensive induration. If less than three quarters of the breast would remain if excision of the diseased portion was attempted, then a formal excision of the breast and axillary glands is demanded. (b) Wood's study of the tissues, removed by Curtis at operation, justifies the general rules for treatment laid down by the latter.

7. **Fractures.**—Ware discusses the diagnosis and treatment of some of the more common fractures. His advice, if not all exactly new, is practical and evidently based on his own experience. He holds that fractures are too often over treated. Our object should be to quickly gain a restoration of function even at the expense of perfect alignment. For Colles's fracture the author prefers the suspension treatment of Malgaigne. For fracture of the femur in children Van Arsdale's dressing, which allows of ambulatory treatment, is specially suitable.

AMERICAN MEDICINE.

August 13, 1904.

1. The Surgery of the Female Urethra,
   By Ely Van De Warker.
2. Fistula in Ano, By George G. Ross.
3. The Report of Experiments to Determine Whether Plaster-of-Paris Contracts or Expands in Setting.
   By J. Torrance Rugh.
4. Illustrative Cases of Myelogenous Leucæmia: Preliminary Report. By George H. Evans.
5. A Case of Acute Suppurative Pancreatitis, Death in 66 Hours: Remarks, By Miles F. Porter.

6. A Plea for the More General Use of Ether, with Description of the Drop Method of Administration, By B. F. STEVENS.
7. The Growth and Development of the Oxford Medical School, By WILLIAM COLLIER.
8. Our Sanitary Needs, with Special Reference to the National Health, By SIR WILLIAM SELBY CHURCH.

1. **The Female Urethra.**—Van De Warker discusses about a dozen affections of the female urethra amenable to surgical treatment. He devotes most space to the consideration of sacculations, strictures of the meatus, prolapse of the mucous lining, and strictures of the urethra. The author holds that this last condition is exceedingly frequent. The actual size of the lumen of the urethra has little to do with the question of stricture. The point that must be determined is whether the canal is free from contracting bands or inflammatory deposits that diminish its size, be it actually large or small. The reason so few strictures are found is because women are not properly examined. If bulb explorers were used instead of solid sounds or the urethrometer strictures would not be so frequently overlooked.

3. **Plaster-of-Paris.**—Rugh finds that plaster-of-paris never contracts on setting. On the contrary, it expands very slightly. There is no ground for fear that pressure sores can develop from the contraction of a plaster dressing.

4. **Myelogenous Leucæmia.**—Evans reports three cases. The first died ten days after admission to the hospital. The other two cases received x ray treatment,. One of these cases was symptomatically cured, the other improved. The author sounds a warning against calling symptomatic cures real cures.

5. **Acute Pancreatitis.**—Porter reports one case of acute suppurative pancreatitis which was diagnosticated during life as a ruptured uterine pregnancy. The author is of opinion that the infection of the pancreas originated in boils that the patient had.

LANCET.

July 30, 1904.

1. The Growth and Development of the Oxford Medical School, By W. COLLIER.
2. On Our Sanitary Needs with Special Reference to the National Health, By SIR W. S. CHURCH.
3. The Hereditary Bias and Early Environment in Their Relation to the Diseases and Defects of Children. (Wightman Lecture), By R. C. LUCAS.
4. Bright's Disease and Its Varieties (Croonian Lecture, III), By J. R. BRADFORD.
5. The Red Light Treatment of Smallpox, By T. F. RICKETTS, and J. B. BYLES.
6. Sleeping Sickness: a Résumé, By A. D. P. HODGES.
7. The Symptoms and Treatment of the Intracranial Complications of Otitis Media; with Cases, By G. HEATON.
8. A Case of Multiple Sarcoma, By S. TAYLOR.
9. A Case of Acute Arsenical Poisoning, By R. E. SEDGWICK.

3. **Heredity.**—Lucas, in the first of the Wightman lectures, discusses from a purely clinical point of view the influence of heredity and early environment upon the diseases and defects of children. Among the points brought out are the hereditary influence of sex—*i. e.*, where there is a great preponderance in a family of one sex, while those of the opposite sex are delicate and die young. Longevity is a distinctly hereditary characteristic. The number of diseases thought to be hereditary is daily diminishing: fifty years ago it was very large. Yet now we know that the type of the tuberculous diathesis is the hereditary effect not the hereditary cause of the disease. Transmitted syphilis is a far more correct term than hereditary syphilis. A hereditary disposition is, however, very strongly marked in cases of defect of the nervous system, and reaches its height in cases of external defects and deformities. As to constrictions and so called intrauterine amputations, the author is opposed to the view that they are caused by the umbilical cord. Such deformities would rather suggest a defect very far back in the procreative process, and their frequency implies something very general. Defective nerve control is a sufficient explanation of many defects occurring at a later period. Suppression of an extremity might be accounted for by the existence of an endarteritis and cutting off of the blood supply. The most difficult of all deformities to account for are those in which there is an excess of the normal development. But the frequent association of these with lack of completion in other parts, indicates a general lack of control.

4. **Bright's Disease.**—Bradford tells us that the modern view is that the majority of cases of nephritis and Bright's disease are of toxic origin. Such toxic substances producing renal disease in the human subject may be divided into three groups: The first and most important are those presumably formed in the course of febrile illnesses and more especially in acute specific diseases. Secondly, are the toxic substances ingested —of which alcohol and lead are the most notable examples. Thirdly, it is possible that substances having a deleterious effect upon the kidney may be produced as a result of altered metabolism the poison of gout being the most marked instance of this. As regards the first class, the severity of the renal lesion is not in any way necessarily related to the severity of the specific infection. Nephritis due to syphilis is probably more common than is generally supposed, and probably some forms of so called idiopathic Bright's disease, supposed to be due to cold, are really dependent on the action of syphilis. The writer holds that Bright's disease and other forms of nephritis should be looked on as separate and distinct affections, the main reason being that in the former affection the occurrence of dropsy cannot be correlated with the severity of the inflammatory change in the kidney. In syphilitic nephritis the amount of albumin present in the urine is usually very large, the quantity of urine not much diminished albumin casts are not numerous, and casts consisting of definite renal elements are scanty. The patient often does not present any marked

phenomena of illness or any marked physical signs other than the presence of a large quantity of albumin in the urine. Dropsy may be entirely absent. A milk diet produces but little improvement. The albuminuria often persists for many months, and may clear up absolutely. Antisyphilitic remedies are necessary, and mercury should not be withheld on account of any supposed toxic action on the kidneys.

5. **Smallpox.**—Ricketts and Byles have tested the value of Finsen's treatment of smallpox by red light, and were not favorably impressed by it. Finsen introduced this mode of treatment some twelve years ago, not as a remedy for smallpox, but only for the suppuration which accompanies it. The authors' experience was limited to thirteen cases, in which the patient was treated with red light throughout the period of suppuration. Six of the cases were unvaccinated. Four were cases of discrete and nine of confluent smallpox. Two of the cases died, both during the fever of suppuration. In neither case was there any complication to which the fatal result could be attributed. The authors could not see that the red light had any effect in preventing the maturation of unmodified lesions or the occurrence of such sequelæ of suppuration as boils, abscesses, etc. In no case was it shown that the treatment had any effect in diminishing the suppurative fever. No better results as to scarring were obtained than are to be expected with any other rational form of treatment. In conclusion the authors' general impression was that the treatment was harmful, it having an unfavorable effect on the general condition of the patient. The tendency to mental symptoms (delirium, headache, etc.) seemed more marked, and the suppurative fever apparently ranged higher. In respect to affections of the eyes, the patients did well. The writers think the exclusion of light also excludes fresh air, and that the freest circulation of air is essential in any mode of treatment.

6. **Sleeping Sickness.**—Hodges states that one of the greatest difficulties in the study of sleeping sickness has always been the extraordinary duration of the incubation period, which may probably occupy from two months to two years. Sleeping sickness attacks all ages and both sexes, but infants usually escape, and old people are perhaps less liable. The higher classes of natives are less susceptible, and Europeans have remained almost immune. The onset of the disease is most insidious, it being impossible to say on just what day the symptoms commenced in any given case. Clinically the cases can be divided into three stages, whose limits are ill defined: (1) In the early stage, chronic headache, lassitude, and fever are the earliest signs. From the first there is a general enlargement of the lymphatic glands, those of the neck being the most constantly affected. An arrhythmical, jerky tremor of the tongue is a very early symptom. The mental attitude and habits are often altered. General pruritus, and its resultant scratch marks, are also frequently present. (2) In the pronounced stage, the diagnosis becomes easy, and may be dated from the characteristic alteration which takes place in the patient's facial expression. This stage is often ushered in by nervous crises, such as epileptiform fits, etc. Early in the second stage sexual impotence occurs in males, and the menses cease in females. The tongue twitching becomes more marked and tremor spreads to the cheeks, lips, and body generally. The muscles become flabby, the face expressionless, and the limbs lose their strength; the speech becomes mumbling and the articulation blurred. At length, there is a tendency to sleep at all hours and the patients pass into the third stage (lethargic or somnolent stage). Here the vital functions seem to dwindle away, and the patients die. Intermission or remission of the symptoms of considerable duration may occur during the first two stages. The symptoms of the disease are to a great extent intermittent in character and not steadily progressive. On the whole, the nervous symptoms are secondary to the general, which points to a general infection rather than to a local disease. The two organisms at present thought to be connected with sleeping sickness are the diplostreptococcus of Castellani, and the trypanosome discovered by the same observer. The trypanosome occurs in the blood and cerebrospinal fluid, while in the disease known as trypanosomiasis it is found only in the blood. The chief carrier of the trypanosome is *glossina palpalis*, a tsetse fly. Inoculation experiments with monkeys have produced a condition clinically resembling sleeping sickness. The marked relative immunity of Europeans is probably due to the smaller amount of skin exposed, and to the fact that they do not live in the jungle. There is no curative treatment for the disease, and the only hope lies in prophylaxis:—a systematic clearing of the places of living and working of the natives, and their instruction as to the dangers of living and sleeping in the forest.

7. **Chronic Otitis.**—Heaton discusses the complications of chronic suppurative inflammation of the middle ear, and their surgical treatment. The three intracranial complications of greatest frequency and importance are: (1) Intracranial abscess either between the dura mater and bone or in the cerebrum proper and cerebellum; (2) thrombosis of the sigmoid portion of the laterial sinus; and (3) septic meningitis. Ear discharge may be entirely absent in these cases: when present it is usually extremely fœtid. Pain is usually the first symptom complained of; it is boring or shooting and is usually onesided. Its intensity and onesidedness are of assistance in making the diagnosis from cases of typhoid fever with meningeal symptoms. With the pain there is usually great tenderness over the mastoid and temporal regions. Rigors and vomiting frequently herald the extension of the disease from the bone to the brain. Such rigors are of grave significance in a case of ear disease. They are most frequent in sinus thrombosis. The temperature, pulse and respiration are liable to extreme variations. In conclusion the author cites in detail a number of cases illustrative of the above mentioned three classes of cases.

Proceedings of Societies.

AMERICAN GYNÆCOLOGICAL SOCIETY.

Twenty-ninth Annual Meeting, held in Boston, May 24, 25, and 26, 1904.

The President, Dr. Edward Reynolds, of Boston, in the chair.

An Address of Welcome was delivered by Dr. Charles M. Green, of Boston, which was responded to by Dr. Henry T. Byford, of Chicago.

The Treatment of Gallstones Found as a Coincidence in Abdominal or Pelvic Operations.—Dr. John G. Clark, of Philadelphia, stated that among the unsettled questions in abdominal surgery, was that of the treatment of gallstones found as a coincidence in abdominal or pelvic operations. He followed the plan at present of removing gallstones which were found in the course of another operation, if the patient's condition permitted of this extra operation. Although it was stated that ninety-five per cent. of gallstones produced no symptoms, he believed that this statement should not be applied to cases as one met with them at the time of an operation. In his review of recent literature he had been especially impressed with the fact that knowledge of the early stages of cholelithiasis was very indefinite, and that many cases which came to operation for more or less urgent symptoms did not have the clinical symptoms of colic and jaundice, as usually taught in medical schools. In view of this hiatus in the early history of this disease, he believed that many symptoms now attributed to gastralgia, indigestion, functional disurbances of the gastrointestinal tract, etc., would, as knowledge increased, be ascribed to the presence of gallstones with associated infection, which was so frequently found in cholelithiasis.

In referring to the ætiology of gallstones, he said that three facts had been prominently established: 1. That the bile was not bactericidal. 2. That the microorganisms in the gall bladder were predisposing, if not absolute, causative factors in the formation of gallstones. 3. That when gallstones were present in the gall bladder, infection in that viscus was much more likely to take place.

He mentioned three general avenues through which infection might enter the gall bladder: 1. From bacteria circulating in the general blood stream and reaching the liver through the hepatic veins. 2. By the direct passage of bacteria into the common bile duct from the duodenum. 3. By the transportation of bacteria from the intestine through the portal circulation.

He then recurred to the frequently quoted statement that ninety-five per cent. of gallstones did not produce symptoms, and showed from his own series of cases that in at least fifty per cent. there were varying symptoms, from undoubted attacks of colic and jaundice to less pronounced gastrointestinal symptoms. To justify operative intervention in cases which were not producing well defined symptoms, the mortality and morbidity should be very low. In his own experience no death had occurred, nor had there been any serious complication referable to the secondary operation. In view of the fact that the additional operation did not seriously jeopardize the life of the patient, and also because he had seen two patients die from cholelithiasis a year or more subsequent to an abdominal operation, although, had the routine exploration been made, the gallstones might have been easily removed, he believed that the best interests of the patient would be conserved if the gallstones were removed as a secondary part of another operation, in the event of their being found. He appended the history of twelve cases, in which the various operative points, as well as the significant facts in symptomatology, were elaborated.

Dr. R. Stansbury Sutton, of Pittsburgh, said that gallstones did not always produce symptoms which demanded or justified resort to operation. If they were encountered during the course of another operation, they had better be removed. There was a remedy, however, which obviated the necessity, in some instances, of surgical intervention—namely, kaolin. He had used kaolin in dozens of cases in which he had held operation in abeyance, and had not had to operate subsequently.

Dr. George M. Edebohls, of New York, had had occasion at one time to operate on a woman who presented marked dyspeptic symptoms. In addition, she had movable kidney, chronic appendicular inflammation, and induration in the region of the gall bladder. He anchored the kidney, removed the appendix through a lumbar incision, pulled the gall bladder into the lumbar wound, and found a stone about four or five centimetres in length, pear-shaped, and nearly filling the gall bladder. The attending physician was positive that the gall bladder did not produce symptoms of stone in it. He would not let him remove the stone from the gall bladder. A year later he opened the woman's abdomen for some other condition, making an incision near the gall bladder. He investigated the gall bladder and found that it was perfectly healthy and that the large stone had either passed or been dissolved. The treatment after the previous operation consisted of the use of olive oil for about a month, and whether this had anything to do with the passage of the stone, he did not know. At any rate, the stone had disappeared and left no trace of its former existence.

Dr. A. Palmer Dudley, of New York, emphasized the importance of looking beyond the gall bladder for trouble. He believed that stones were formed in the liver ducts themselves, that from a stagnant circulation cholesterin nuclei formed, and that only a small proportion of stones were found in the gall bladder. He would not hesitate to attack the centre of the liver. In fact, in the last case he had, in which the diagnosis of gall stones had been made by a medical confrère, he boldly opened the gall bladder, but found no stone. He found the duct dilated; he proceeded five inches into the right lobe of the liver, as far as he could reach with his finger, and packed the liver full of iodoform gauze, putting an apron of gauze over it, and the patient was well to-day. He would explore the centre of the liver in searching for such deposits.

Dr. Brooks H. Wells, of New York, said that in the last few years he had used practically the same measures as those outlined by the essayist. A number of patients coming under his observation had complained of obscure symptoms, of so called functional indigestion. In them he found either disease of the gall bladder, an overdistended gall bladder from obstruction elsewhere, or trouble referable to gallstones. By making a small or large incision, as seemed necessary, cleaning out the gall bladder, and draining it, the patients had obtained remarkable relief from the symptoms that were supposed to be due to functional indigestion.

Dr. Seth C. Gordon, of Portland, Me., said that when the abdominal cavity was opened for other purposes, and he was quite sure the patient could stand it, he would examine the gall bladder thoroughly, and if gallstones were found, he would remove them. He cited cases in support of this line of reasoning.

Dr. Hiram N. Vineberg, of New York, said that under the influence of the teaching of Kelly he had been in the habit of doing what had been advocated by the essayist, but after hearing a discussion on gallstones in the common duct and in the gall bladder by one of the Mayos, he had changed his method. Simply opening the gall bladder and removing the stones did not effect a cure, as proved by three or four cases that had occurred in his own practice. If the gall bladder was diseased, however, it should be removed.

Dr. J. M. Baldy, of Philadelphia, said that gallstones existed in the gall bladder for years without causing any material discomfort, but that when infection occurred they were apt to give trouble. There was not the slightest question but that large numbers of cases of so called stomach trouble, or chronic indigestion, sooner or later proved to be cases of gallstones or of gall bladder disease. With reference to removing gallstones when operating for some other intraabdominal condition, the surgeon should consider the physical condition of the patient, the surroundings, etc., and whether the patient was willing to undergo the additional risk of a second incision for the gall bladder operation.

Dr. Walter P. Manton, of Detroit, quoted Ochsner as saying that he had tried almost everything in the so called cases of chronic dyspepsia, without affording relief; yet after opening the gall bladders and removing gallstones which were found, the patients were cured. Dr. Manton had seen a number of such cases, and contended that the removal of gallstones or the gall bladder, if diseased, was the thing to do. He did not believe there was anything which would dissolve gallstones.

Dr Beverly MacMonagle, of San Francisco, stated that when the abdomen was opened for some pelvic or abdominal trouble, the operator should investigate the gall bladder. If gallstones had been making the patient ill, causing dyspepsia, or if there were adhesions around the gall bladder, one should operate. The conditions that arose in the pancreas as a consequence of gall bladder disease and of gallstones were serious, and if the surgeon could do something of a prophylactic nature, without adding to the risk to the patient's life, it was a wise thing to do.

Dr. Clark said the formation of gallstones through bacteria had been clearly demonstrated by a series of experiments. He did not believe anyone would strongly advocate operation unless the gallstones were producing symptoms.

Ovarian Pregnancy.—Dr. J. Clarence Webster, of Chicago, reported a case. There was a right irregularly rounded ovarian swelling, measuring 7 by 8 centimetres. There was no evidence of rupture into the peritoneal cavity. The adhesions were recent. Sections of the swelling consisted mainly of extravasated blood and disseminated fragments of the chorion. No evidence of transformation of ovarian connective tissue into decidua was noted. It was certain that the pregnancy did not start in a Graafian follicle.

Dr. J. Whitridge Williams, of Baltimore, said there was no doubt that ovarian pregnancy occurred, but it was the rarest of all forms of extrauterine pregnancy. In regard to its Müllerian origin, he was not quite convinced of it. While there was no doubt that Müllerian tissue might be found in the ovary, as mentioned by the essayist and confirmed by numerous observers, he thought it was going too far to advance that view in explanation of every case of ovarian pregnancy.

Dr. John T. Thompson, of Portland, Me., referred to a case of ovarian pregnancy that he had reported at a previous meeting of the society. He called attention to the nature of the structures in which pregnancy occurred and to the frequency with which rupture might occur in the early days.

Dr. Edward P. Davis, of Philadelphia, removed an ovarian gestation sac about a year ago, the histology of which had not been completely worked up as yet, although a diagnosis was made very early of the nature of the tumor from the enlarged ovary. The indications were that the pregnancy did not originate in the Graafian follicle.

Dr. Lapthorn Smith, of Montreal, had diagnosticated ectopic pregnancy by the clinical symptoms; had operated, and found hæmatoma of the ovary. He had said to his students that he was sorry that his diagnosis was wrong, because authorities maintained that there was no such thing as ovarian pregnancy, but after hearing what had been said he was convinced there was.

Ureterolithotomy.—Dr. J. Wesley Bovée of Washington, in a paper on this subject, gave the history of the operation, and then discussed the size and number of calculi. The routes for reaching and extracting ureteral calculi, he said, were the transperitoneal and the extraperitoneal. The latter might be subdivided into lumbar, inguinal, vaginal, rectal, sacral, perineal, and transvesical. The transperitoneal route should never be the one of election, as the danger of peritoneal infection from the urine was too great. Of the extraperitoneal routes, the selection would depend largely upon the location of the calculus or calculi, although the operation of Ceci of removing it through the rectum should only be considered justifiable when the stone had practically sloughed through into the rectum. In a class of cases characterized by the stone having been lodged in the intravesical portion of the duct and later sloughed into a pocket in the bladder wall, which it had made for itself, the vaginal and inguinal routes were the only safe ones, although in so stating he was not unmindful of the number of cases in which suprapubic cystotomy had been done. He discussed the removal of the calculus from the ureter and the methods for so doing; also the treatment of the ureteral opening.

Speaking of drainage, he stated that all ureterolithotomy wounds should be drained. This was because the urine was practically never normal, therefore rendering wound infection probable. The possibility of urinary leakage subsequent to operation afforded another positive indication for drainage.

Nephrectomy for Primary Tuberculosis of the Kidney.—Dr. HIRAM N. VINEBERG, of New York, read a paper on this subject. Tuberculosis of the kidney, both primary and secondary, was more frequently met with in women than in men, in the proportion of about two to one. Differently from what occurred in men, renal tuberculosis in women was rarely associated with tuberculosis of the genital organs. Cystitis in women that resisted the topical applications of the silver nitrate solution by the Kelly method should be looked upon with marked suspicion as being of tuberculous character, even though repeated examinations of the urine should show absence of the tubercle bacillus. The diagnosis of a non-tuberculous from a tuberculous cystitis with the aid of the cystoscope was not so reliable as the therapeutic test outlined in the preceding sentence. Pronounced reddening or ulceration about the mouth of one of the ureters, with absence of other bladder changes, was held by some authorities as pathognomonic of tuberculosis of the corresponding kidney; while the sign was an important one, too much weight should not be attached to it in women. In most cases the removal of the diseased kidney would bring about practically a cure of the descending cystitis. He doubted the wisdom of the advice to cure the cystitis before undertaking the removal of the kidney. In women, owing to the fact that the disease was most frequently primary and unilateral, the modern tests for determining the functional capacity of the second kidney were not so essential as in men. Catheterism of the supposedly healthy kidney was a procedure to be avoided when, as was frequently the case, there was tuberculosis of the bladder. The prognosis of nephrectomy in renal tuberculosis in women was exceedingly good. Of the writer's four patients operated upon, all were alive and in good health.

Dr. JOSEPH E. JANVRIN, of New York, reported the case of a woman who had been ailing for two years with what was supposed to be a renal calculus. Before he operated, Dr. Willy Meyer examined the woman and agreed with him that the case was probably one of calculus in the pelvis of the kidney, with possibly calculi in the ureter. The kidney was removed, and it was found that its pelvis was infiltrated with tuberculous deposits in the very early stage. The patient made a good recovery and was well to-day.

Dr. BOVÉE said that if one read the proceedings of the late meeting of the German congress, he would be impressed with the comparatively large proportion of cases in which primary tuberculosis was found in both kidneys, or the very small proportion in which one kidney alone was involved. As to the indications for operation on a tuberculous kidney, the surgeon should be sure that the opposite kidney was capable of carrying on the function of excreting urine for the whole body before he decided to remove the tuberculous kidney. A nephrotomy might be done, and the kidney most markedly diseased drained, without taxing the other kidney to a great extent. As regarded cystitis in tuberculosis of the kidney, it was a late, not an early, symptom.

Dr. PHILANDER A. HARRIS, of Paterson, N. J., said that in cases of tuberculosis of the kidney it was difficult, where the bladder was corrugated and changed by the pathology present, to find the ureter; but by painting the entire field of the bladder with some solution sufficiently colored, as with Prussian blue, he had succeeded in finding the ureters which he could not otherwise locate.

Dr. SETH C. GORDON had operated on a man, removing a kidney which was situated low in the abdomen, painful, and bound down by adhesions. The patient died eleven days after the operation, and post mortem examination showed that the man had no other kidney. Two years afterward he removed a very large kidney from a woman, who lived twenty-eight days after the operation. For twelve hours she did not have a single uræmic symptom, nor was a drop of urine secreted, and she died in full possession of her faculties. Post mortem examination revealed that she had no other kidney.

Dr. BALDY said it was not uncommon to have medical men in the wards of the polyclinic ask if the ureters had been catheterized in the cases of supposed kidney disease, and not infrequently a perfectly healthy kidney was palpated and found on one side which utterly failed to secrete, with the patient under an anæsthetic or without it. In some instances this failure on the part of the kidney to secrete was undoubtedly brought about by the influence of the anæsthetic. At any rate, anæsthesia would reduce the quantity of secretion very materially. He had had exactly that same experience a number of times in patients whose ureters he had catheterized, but to whom no anæsthetic had been given.

Dr. EDEBOHLS said that some four or five years ago he read a paper on The Other Kidney and Contemplated Nephrectomy. In it he advocated that before removing a kidney an incision should be made on the opposite side to determine by actual inspection and palpation, first, the presence of another kidney, and, second, its probable health, so far as could be determined macroscopically, before removing the diseased kidney. In spite of the advance made in diagnosis, and its limitations in kidney diseases, he had adhered to that rule in all nephrectomies performed since that time, and in one case he had saved a woman's life by so doing.

Dr. J. RIDDLE GOFFE, of New York, reported a case bearing on the removal of the ureter in connection with tuberculosis of the kidney, the patient having been operated on by him in 1896. She was a woman of twenty-two, who had a very large tuberculous abscess of the right kidney. He removed the kidney and three inches of the ureter. She made an excellent recovery, excepting that she had a sinus which lasted four months and then healed. She was now in perfect health.

The President gave his experience of ten nephrectomies for tuberculous disease, seven of them being complete nephroureterectomies, all successful, so far as operative mortality was concerned.

Hypertrophies and Inflammations About the Urinary Meatus.—Dr. Robert L. Dickinson, of Brooklyn, read a paper on this subject, saying that their frequency and the suffering caused gave them an importance out of all proportion to their minute size. They were often overlooked because hidden among folds of mucous membrane. They were explained by embryology. A tiny ribbon ran from the rear of the vaginal opening forward, on each side of the vaginal and urethral openings, across the vestibule to disappear beneath the clitoris. This fold was persistent in those cases where the hymen ran forward of the meatus, or the meatus seemed to open on the anterior vaginal wall. This fold was enlarged by friction or traction to produce flaps, or labia, hanging out on each side of the meatus. They were found only with corrugated labia. Dilated or dilatable urethra often accompanied them. The urethral glands opened near the apex of the flaps. They were long, running down into the anterior column of the vagina. Swelling from infection differed from hypertrophy. The cure of chronic inflammation was only feasible by obliteration of the glands. A fine probe passed to the bottom of the gland rendered the vestibular vaginal surface tense; the cautery wire cut out the probe. For piles of the meatus the cautery wire was used after cocaine; for prolapse or dilatation of the urethra, resection of the anterior vaginal wall or paraffin injections into the urethrovaginal sæptum produced a sigmoid profile.

The Surgery of the Female Urethra.—Dr. Ely Van de Warker, of Syracuse, N. Y., read a paper on this subject. The urethra, he said, appeared like an insignificant part, its vital relations were negligible, its anatomy was relative, and acquired its importance from its related organs, but it might be said to epitomize a large share of the suffering that woman's pelvic organs inflicted upon her. The amount of disturbance caused by a simple irritation of the urethra to the bladder and indirectly to the kidneys afforded striking proof of the validity of reflected nervous disturbance.

The term sacculation was regarded as better than the old one, urethrocele. Its major cause was mechanical, as inflammation alone was not adequate to its production. The urethra might be said to belong to the perineal rather than the pelvic zone of organs. The walls of the canal depended in a measure upon the support of the perineal body. It was often associated with long standing rupture of this part. Restoration of the perinæum was therefore essential to treatment of the sacculation. When large, an elliptical flap of the walls of the urethra was removed and the edges were brought together by fine silk sutures. Prolapse of the mucous lining of the urethra the author had generally associated with long standing urinary troubles of various kinds. It was therefore probably due to a gradually progressive condition, was a typical ptosis, and complied with the general law of genital prolapse. After removing the prolapsed portion there was a marked tendency to recurrence unless the conditions which gave rise to it were treated and cured. Bladder incontinence and dribbling were often lifelong conditions. That this was due to a defective action of the sphincter vesicæ was more than doubtful. Dribbling was one of the symptome of hysteria, of which a striking case was given in illustration.

Narrowing, by operation, the bladder and end of the urethra, linear cauterization at this point, had afforded relief. Any treatment was apt to fail, and relapses were frequent. The powerful influence of hysterical disturbance over the urinary tract was constantly observed. Dribbling was the related phase of retention. The treatment of this form was more satisfactory. The urethral stricture, when of small calibre, was frequently found with dysuria and dribbling. The author referred to but two cases of urethral mucous polypus and concluded that they must be rare. These growths ought never to be twisted off, as the tissues were too friable. Removal of the growth through the mucous membrane, so that no stump was left, was the proper procedure.

Stricture of the urethra, in the author's experience, was common in women. Any condition that tended to produce linear or annular thickening led to stricture. Specific urethritis might produce stricture, but it was not the frequent cause alleged by some writers. Stricture of large calibre might be located and measured by the Otis bulbs, but never by the sound, as was recommended by old systematic writers. Annular stricture of the meatus was the form most commonly met with. This ought to be incised and made to heal in an open condition by the frequent passage of the sound. Dilatation alone was too painful and required too much time. As to eversion of the mucous membrane at the meatus, its prototype was the fusiform stricture of Otis, and its surest cure was by dilatation.

Caruncle of the urethra was a common occurrence. Removal, involving the whole thickness of the mucous membrane, being careful not to leave a stump, was an effectual cure.

(To be continued.)

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The Ontario Medical Library Association have purchased the Thorne residence, 9 Queen's Park, Toronto, for $12,000, over $5,000 of which has been subscribed by the Massey estate. Among the other donors are: Dr. William Osler, Philadelphia, $1,000; Mr. Timothy Eaton, $500; Mr. William Gooderham, $500; Mr. E. B. Osler, M. P., $500. The trustees of the property are Dr. J. F. W. Ross, Dr. R. A. Reeve, and Dr. N. A. Powell.

Book Notices.

Rabies. By David Sime, M. D. London: C. J. Clay & Sons. New York: The Macmillan Company; Bombay and Calcutta: Macmillan & Co., Ltd.; Leipsic: F. A. Brockhaus, 1903. Pp. 290. (Price, 10s. 6d.)

This work is written not so much as an exposition of the facts that are known regarding rabies, its cause and pathology, symptoms, and experimental studies upon it, as it is as an argumentative treatise upon the mode of infection and prophylaxis, and the form it takes in the various animal species.

The author calls attention to the facts that the salivary gland is really not the seat of rabies, and that the saliva of a dog suffering from convulsive, or "furious," rabies is generally not infective. This, of course, is quite contrary to popular belief. He regards the bulbar substance and the lumbar region as preeminently the site of the disease, but the site of its germination he considers to lie especially in the sensory roots of the cerebrospinal axis. The disease has an attenuating and an intensifying form. The dog is an attenuator of the rabies virus, the rabbit is the best intensifier. Simes considers that rabies was not primary in the dog, but rather in some intensifying animal. The discovery of a microbe of rabies by Professor Sormain, of Pavia, is regarded by Sime as authentic.

To one interested in this special topic the book would undoubtedly be of considerable value, but in the reviewer's opinion it would be of much greater value if its contents had been somewhat condensed.

Second Series of Lectures on Diseases of the Nervous System—Subjective Sensations of Sight and Sound, Abiotrophy, and Other Lectures. By Sir William R. Gowers, M. D., F. R. C. P., F. R. S., etc. Philadelphia: P. Blakiston's Sons Co., 1904. Pp. 250.

As one would naturally expect of any product of such a master as Gowers, these lectures are well worth careful reading. The lectures have appeared in print at various times, but as now offered they have undergone careful revision. The first of the series has to do with visual sensations; especially those constituting spectra of migraine; and Gowers concludes that they must be due to functional fusion of the centres in the two hemispheres. He deals with the character and source of the various spectra, such as the expanding and zonular forms, and deplores the meagreness of recorded observations by those having such sensations. He rightly calls attention to the facts that our knowledge of cerebral visual functions furnished by organic disease is chiefly negative, and that we must place more reliance upon the study of functional disturbances. The discussion of the various spectra and their significance is too technical for review.

The second lecture treats of the subjective sensations of sound, especially in their relation to the brain. The author discusses the varieties of tinnitus, the locality of the sound, the character of labyrinthine sounds, the relation of tinnitus and vertigo, sounds of central origin, as distinct from aural, the pathology of tinnitus, which he considers to be of the nature of a chronic labyrinthine inflammation in most cases; and finally, the treatment.

The third lecture, and the one which from a neurological point of view, is probably the most important in the series, is entitled Abiotrophy; Diseases from Defect of Life. Abiotrophy is a term coined by Gowers to denote "degeneration or decay of parts in consequence of a defect of vital endurance." Examples of abiotrophy are to be found in cases of early baldness, in the dystrophies of the muscular system, in Hoffman's progressive neural atrophy, in the peroneal atrophy of Charcot, Marie, and Tooth, in Friedreich's disease, and in primary atrophy of the optic nerve. Another group of cases are those in which toxic substances probably produce degenerations. The effects of arsenic and alcohol are included here, but tabes occupies the most prominent position, the degenerative agent being most probably a postsyphilitic toxine. In tabes, Gowers asks whether the degeneration is due to the constant presence of a toxine or if a transient toxine has an influence in reducing subsequent vital endurance? If the latter is true, it is an instance of acquired abiotrophy. He leans, however, toward the first proposition. It is interesting in connection with Gowers's theory and use of the word abiotrophy to recall the "Ersatz" theory which Edinger has proposed.

Myopathy and a Distal Form is the subject of the fourth lecture, which is a clinical exposition of types of "abiotrophy." In speaking of treatment in these unconquerable diseases, Gowers lays great stress upon persevering efforts to maintain the exercises of the muscles. Contractures must be prevented by all possible means, and when present they are to be overcome.

The lecture on Metallic Poisoning deals principally with poisoning from lead and arsenic. The chief fact of interest in this connection is the stress Gowers lays upon the presence of a lead line, going so far as to advise the use of a lens in examining the gums. The lecture also contains some good advice for those practitioners who are none too careful in discrediting the diagnosis of their fellows in the eyes of their patients.

The succeeding lectures deal with Syphilis of the Nervous System, Syphilitic Arterial Disease, in which stress is laid upon the use of potassium iodide, fifteen grains three times daily being considered a large dose, and also upon the fact that certain cases progress despite all antisyphilitic treatment, Syringomyelia and cases of Syringal Hæmorrhage, Myasthenia, and finally one on The Use of Drugs.

Not only are these lectures highly instructive because they are the exposition of the views of one of the greatest neurologists of the English-speaking world, but their style and clearness of expression raise them far above ordinary medical literature.

Beiträge zur Anatomie der Tubenschwangerschaft. Von Dr. Fritz Kermauner, Assistent an der Universitäts-Frauenklinik zu Heidelberg. Mit 44 Abbildungen. Berlin: S. Karger, 1904.

This monograph was written as the result of the macroscopic and histological study of forty-one cases of tubal pregnancy. The work has been most carefully and thoroughly done and constitutes a most worthy contribution to the literature of the subject.

As may be surmised, the purpose of the author was, if possible, to investigate the ætiology of tubal pregnancy and, by ascertaining this, to consider questions of prophylaxis. But, like the other, now many, students, his examinations have led him to no definite results. Salpingitis may be taken as a usual finding in the tube which is also the site of the pregnancy; but many times this disease is not present. Malformations, too, are not infrequently seen, but they, also, are an inconstant factor. Kermauner rather sadly admits that the causes of tubal pregnancy are as obscure as ever.

The histological studies are exceedingly interesting, especially in those cases in which decidual cells were found in hæmatoceles, on the peritoneal surface of the tube, and, in some old cases, very sparsely in the muscular coat of the tube.

The monograph is important to the pathologist and the specialist, and is one of these almost perfect works of its kind which we have learned to expect from the modern German clinic.

The Therapeutics of Mineral Springs and Climates. By I. Burney Yeo, M. D., F. R. C. P., Emeritus Professor of Medicine in King's College, London; Consulting Physician to King's College Hospital, etc., etc. Chicago: W. T. Keener & Co., 1904. (Price, $3.50.)

This volume contains in concise form and well ordered manner just that information which is needed by practitioners who are called upon to give an opinion regarding the merits or demerits of European watering places and health resorts. In the very nature of the case it is impossible for the practitioner to become personally familiar with even any considerable number of the more popular health resorts in Europe, and this work of Dr. Yeo's will be of great service to all physicians who are likely to be consulted by patients who wish to combine a tour of Europe with a sojourn at a mineral spring. To the American physician the work is much less valuable than to English physicians, since American mineral waters and springs are ignored. With this geographical limitation, however, the work is undoubtedly valuable.

Eczema and its Congeners. Their Pathology and Bacteriology, with some Recent Improvements in their Treatment. By Edward Blake, M. D., M. R. C. S.; Member of the French Hygienic Society; Hon. Member Michigan Medical Society. London: Henry J. Glaisher; Philadelphia: P. Blakiston & Son. Pp. xix-136.

The author handles his subject with a philosophical breadth as refreshing as it is rare. The work is full of acute, and in the main, sound reasoning; and at the same time abounds in practical points that will be of special value to the general practitioner. His connotation of the term eczema is a very wide one, and he manages to include sections on such divergent subjects as pyorrhœa and anal fissure. The book contains an appendix on the therapy, in which will be found many useful formulæ. The author speaks highly of the use of commercial formaldehyde solution in the treatment of that form of the disease associated with much local œdema, the fluid of which does not tend either to escape or to be absorbed. There is a full bibliography and a very complete index, to the importance of which the author bears feeling testimony in his introduction. It is a pleasant book to read, and we are gratified to note that a fair measure of justice is done, among others, to American investigators, and particularly to Duncan Bulkley and Woods Hutchinson.

Cleft Palate and Hare Lip. The Earlier Operation on the Palate. By Edmund Owen, M. B., F. R. C. S., Surgeon in Chief to the French Hospital, Consulting Surgeon to St. Mary's Hospital and to the Hospital for Sick Children, London. London: Baillère, Tindall, & Cox, 1904.

This is an eminently practical monograph, the object of which is to show the young surgeon contemplating his first operation for cleft palate, "how he may overcome the difficulties which he knows to be associated with the procedure, and how he may best be enabled to secure a good result." It strikes a middle line between the familiar textbooks which give but an outline sketch of the operation, and special works upon the subject, which describe so many schemes as to be absolutely bewildering. The chapters are: The Development of Palate and Lip; The Material, the Assistants; Preparatory to Operating on a Cleft Palate Subsequent to Early Infancy; The Advantages of Early Operation; The Earlier Operation on the Palate; The Operation for Cleft Palate after Infancy; After the Operation; Failures and Incomplete Successes; and The Operation for Hare Lip. Mr. Owen's eminence and ample experience as a surgeon are ably seconded in this little work by his felicity and judgment as a writer. Incidentally, we may remark that the volume is dedicated to Dr. Truman W. Brophy, of Chicago, and the late Dr. A. M. Phelps, of New York, "as a slight token of the regard in which British surgeons hold the work of their enterprising confreres in the United States of America." That this gratifying tribute from a representative British surgeon is no mere verbiage is shown by the following passage from the preface: "My chief excuse for this essay is that I desired to bring into more general notice the original and excellent work which has been accomplished in the treatment of cleft palate of Dr. Truman Brophy, the president of the Chicago College of Dental Surgery. . . . Practical experience with Brophy's method has convinced me that it marks a great advance in the surgery of the defect." We can heartily commend this inexpensive work to all surgeons interested in this branch of orthopædics.

BOOK AND MAGAZINE NOTES.

The new *Handbook of Urine Examination,* by Dr. DeSantos Saxe, of New York, which we announced to be forthcoming some time ago, will appear from the press of W. B. Saunders about September 1st. Judging from advance sheets which have been submitted to us, the book will be a concise, practical, and complete manual of uranalysis. The theory of urinary secretion and the methods of functional examination of the kidney have received more detailed consideration than usual, and while still of little practical use, a knowledge of these themes, as the preface says, "adds materially to a grasp of the modern status of uranalysis and of the direction in which advances may be expected in this science." Special attention has been given to technics and to the interpretation of findings, and in this connection the author gives some hints as to methods of working that developed in his own experience. Typographically Dr. Saxe's book will do credit to the Saunders imprint, being a neat duoecimo of 377 pages, bound in flexible leather, and fully illustrated.

We have rarely spent more delightful moments than those over *The Day Before Yesterday,* a series of sketches of a civil war time Indiana village. The author, Sara Andrew Shafer, has genuine humor, and her sentiment is not sentimentality. The Doctor who is prominent in the book. is our ideal practitioner, and his daughter Rachel as charming a child as one would care to meet and fail to understand. Mrs. (or Miss) Shafer meets the kailyard artists in their own field and does worthy battle without the aid of dialect. (The Macmillan Company.)

The Optical Dictionary, by G. Hyatt-Woolf, F. R. P. S., embodies a novel idea in collecting from dictionaries of all kinds and works on optics, photography, microscopy, skiagraphy, etc., the special terms used in optics, ophthalmology and all sciences concerned with the phenomena of light. A number of German words are included. For quick reference, the little volume should prove most useful to students. It is published by P. Blakiston's Son and Company, of Philadelphia, and retails at one dollar.

BOOKS, PAMPHLETS, ETC., RECEIVED.

Bulletin de la Société D'Encouragement Pour L'Industrie Nationale, publié sous la direction du secretaire de la société, M. E. Collignon. Paris, 1904. Siége de la Société.

Thirtieth Annual Report of the Women's Hospital, Montreal, 1903. Montreal, 1904: Printed by John Lovell & Son, Limited.

International Clinics. A Quarterly of illustrated Clinical Lectures and Especially Prepared Original Articles, on Treatment, Medicine, Surgery, Neurology, Pædiatrics, Obstetrics, Gynæcology, Orthopædics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene, and other topics of interest to students and practitioners. By leading members of the medical profession throughout the world. Edited by A. O. J. Kelly, A. M., M. D., Philadelphia, U. S. A., with the collaboration of William Osler, M. D., Baltimore; John H. Musser, M. D., Philadelphia; James Stewart, M. D., Montreal; J. B. Murphy M. D., Chicago; A. McPhedran, M. D., Toronto; Thomas M. Rotch, M. D., Boston; John G. Clark, M. D., Philadelphia; James J. Walsh, M. D., New York; J. W. Ballantyne, M. D., Edinburgh; John Harold, M. D., London; Edmund Landolt, M. D., Paris; Richard Kretz, M. D., Vienna, with regular correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic Brussels, and Carlsbad. Vol. II. Fourteenth Series. Philadelphia, 1904: J. B. Lippincott Company.

A Text Book of Human Physiology. By Albert P. Brubaker, A. M., M. D., Professor of Physiology and Hygiene in the Jefferson Medical College; Professor of Physiology in the Pennsylvania College of Dental Surgery, etc. With Colored Plates and 354 Illustrations. Philadelphia, 1904: P. Blakiston's Son & Co. [Price, $4.00 net.]

The Surgery of the Heart and Lungs. A History and Résumé of Surgical Conditions found therein, and Experimental and Clinical Research in Man and Lower Animals, with Reference to Pneumonotomy, Pneumonectomy, and Bronchotomy, and Cardiotomy and Cardiorrhaphy. By Benjamin Merrill Ricketts, Ph. B., M. D., Member Am. Assn.; Western Surg. and Gyn. Assn.; Int. Med. Cong., 1887, etc. New York, 1904: The Grafton Press. [Price, cloth, $5.00; leather, $7.00 net.]

Miscellany.

Nasal Dysmenorrhœa.—Dr. G. Kolischer (*American Journal of Obstetrics,* June, 1904) winds up a paper on this subject with the following conclusions: First. The right to proclaim nasal dysmenorrhœa as a clinical entity is not established. Second. The influence of cocaine upon dysmenorrhœal attacks can be explained by the general intoxication of the system with this alkaloid. Third. Every patient suffering from menstrual pains has to be examined as to general hysteria. Fourth. Administration of cocaine, especially in nervous patients, is not to be recommended on account of the deleterious influence of this drug upon the nervous system, and on account of the danger of educating cocaine fiends. Fifth. In cases in which no anatomical abnormities and no hysterical foundation are to be found, massage and gymnastics should be administered, or the patient should be advised to ride a bicycle.

Sad Decline of Classical Learning in England.—It is not uncommon to hear from Englishmen sojourning in this country that our knowledge of the ancient languages is very superficial. The *Manchester Guardian* reprints from the English *Daily News* an item which apparently shows that even in the old country there are not only "very distinguished doctors," but even editors who have forgotten what Latin was caned into them at school. According to the *Guardian:* "A very distinguished doctor (writes a correspondent) tells the *Daily News* that the medical profession appears to be undermanned only because of the difficulty at this time of year in finding 'loci tenentes.' What a pitfall is this turning about of familiar Latin phrases, as the lady proved who talked of 'omnibi,' or as that other showed us who talked of 'a state of doubtful ebriety!' Let us hope that the medical profession will not long have to deplore the want of 'loci tenentes,' or some one is sure to remind us very soon of what we seem to have heard before, that the medical profession used to be a very different thing. As the brilliant Fellow of All Souls' remarked when deploring the decline of intellect in the younger Fellows, 'D—— it. *We* used to be *sui generis.*'"

A Safe Preservative for Milk.—*Presse médicale,* for June 15, 1904, states that P. Diffloth, Adolphe Renard, and Charles Nicolle have been studying the action of hydrogen dioxide on milk and have come to the conclusion that the best method for preserving that fluid is to add from one to two per cent. of the antiseptic as soon as possible after milking, and to leave the milk in a cool place from six to eight hours before it is used. The milk thus treated is tasteless and odorless, and does not differ in any way from fresh milk. When churned it coagulates in exactly the same time.

Hydrogen dioxide cannot be compared to other antiseptics, the addition of which to milk is justifiably prohibited. While the latter, in order to be effective, must often be used in toxic doses and remain subsequently in the milk for an indefinite period, hydrogen dioxide disappears entirely in a short time. In contact with milk it is decomposed into nascent oxygen and water, so that at the end of a few hours no trace of it remains.

Official News.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the week ending August 12, 1904:

Place.	Date.	Cases.	Deaths.
Smallpox—United States.			
Dist. of Columbia—Washington	July 30-Aug. 6	1	
Illinois—Peoria	July 1-31	4	
Louisiana—New Orleans	July 31-Aug. 6	1	
Massachusetts—North Adams	July 31-Aug. 6	2	1
Michigan—At 72 places	July 23-30	Present.	
Missouri—St. Louis	July 31-Aug. 6	2	
New Hampshire—Manchester	July 31-Aug. 6	1	
New York—New York	July 31-Aug. 6	3	
Ohio—Zanesville	July 2-30	3	
Pennsylvania—Johnstown	July 31-Aug. 6	1	
Tennessee—Nashville	July 31-Aug. 6	1	
Wisconsin—Milwaukee	July 31-Aug. 6	1	
Smallpox—Foreign.			
Brazil—Rio de Janeiro	June 26-July 3	200	117
Canada—Winnipeg	July 23-30		1
Colombia—Barranquilla	July 18-24		1
France—Marseilles	June 1-30		3
France—Paris	July 16-23	17	1
France—Rouen	June 1-30		3
Great Britain—Glasgow	July 22-29	7	2
Great Britain—Liverpool	July 16-30	6	
Great Britain—London	July 9-16	7	
Great Britain—Manchester	July 9-16	2	
Gt. Britain—Newcastle-on-Tyne	July 9-16	10	1
Great Britain—Nottingham	June 16-23	2	
Great Britain—Sheffield	July 16-23	1	
India—Bombay	June 28-July 12	24	
Italy—Palermo	July 16-23		1
Mexico—City of Mexico	July 17-24	2	2
Russia—Moscow	July 9-16	5	5
Russia—Odessa	July 16-23	1	
Russia—Warsaw	June 25-July 2		20
Turkey—Constantinople	July 17-24		10
Yellow Fever.			
Brazil—Rio de Janeiro	June 26-July 3	3	1
Mexico—Merida	July 24-30	1	1
Mexico—Tehuantepec	July 24-30	4	1
Mexico—Vera Cruz	July 24-30	1	
Cholera.			
Persia—Teheran	July 9	Severe epidemic.	
Straits Settlements—Singapore	June 10-18		1
Turkey—Bagdad	June 30	3	1
Turkey—Villages	June 30		404
Plague—Insular.			
Hawaii—Honolulu	Aug. 4		1
Plague—Foreign.			
Egypt	July 2-9	31	15
Formosa	June 25-July 2	35	37
India—Bombay	June 28-July 12		73
Peru—Callao	June 25-July 2		2
Peru—Lima	June 25-July 2	4	1

Public Health and Marine Hospital Service:

Official List of the Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the Public Health and Marine Hospital Service for the seven days ending August 11, 1904:

CLARK, TALIAFERRO, Passed Assistant Surgeon. Granted leave of absence for one month from September 13th.

COOK, B. J., Acting Assistant Surgeon. Granted leave of absence for ten days from August 3rd.

GAHN, HENRY, Pharmacist. Granted leave of absence for fifteen days from August 15th.

HOLSENDORF, B. E., Pharmacist. Granted leave of absence for thirty days from September 1st.

LUMSDEN, L. L., Passed Assistant Surgeon. Granted leave of absence for four days from July 23, 1904, on account of sickness.

SLOUGH, CHARLES, Pharmacist. Granted leave of absence for thirty days from August 10th.

STIER, CARL, Pharmacist. Granted leave of absence for thirty days from August 17th.

Resignation.

Pharmacist G. O. FERDINAND resigned, to take effect August 15, 1904.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending August 13, 1904:

ASSERSON, F. A., Assistant Surgeon. Detached from the *Kentucky* and ordered home to await orders.

DABNEY, V., Acting Assistant Surgeon. Detached from Naval Recruiting Party No. 3, and ordered home to await orders.

DEAN, R. C., Medical Director. Detached from duty as a member of the Naval Retiring Board, Washington, D. C., and ordered home.

DESSEZ, P. T. Assistant Surgeon. Detached from the Naval Academy, Annapolis, and ordered to the *Kentucky*.

DUNCAN, G. F., Acting Assistant Surgeon. Detached from Naval Recruiting Party No. 2 and ordered to the *Franklin*.

GUEST, M. S., Passed Assistant Surgeon. Detached from the *Kentucky* and ordered to Washington, D. C., for examination for promotion, and then to await orders.

JANNEY, W. H., Acting Assistant Surgeon. Detached from Naval Recruiting Party No. 1, and ordered to the *Marcellus*.

LUNG, G. A., Surgeon. Detached from the *Hancock* and ordered to the *Kentucky*.

MCDONNELL, W. N., Acting Assistant Surgeon. Detached from the *Marcellus* and ordered to the Naval Recruiting Rendezvous, Baltimore, Md.

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending August 13, 1904:

ASHBURN, P. M., First Lieutenant and Assistant Surgeon. Left Fort Missoula, Mont., with troops on practice march.

BARNEY, CHARLES N., First Lieutenant and Assistant Surgeon. Ordered to accompany Hospital Corps detachment from Fort Jay, N. Y., to Gainesville, Va.

CHURCH, JAMES R., Captain and Assistant Surgeon. Sick leave of absence extended two months.

DALE, F. A., First Lieutenant and Assistant Surgeon. Granted thirty days' leave of absence, to take effect about September 1, 1904.

FREEMAN, PAUL L., First Lieutenant and Assistant Surgeon. Ordered to proceed from Fort Slocum, N. Y., to Fort Warren, Mass., for temporary duty.

GOSMAN, GEORGE H. R., First Lieutenant and Assistant Surgeon. Assignment to duty with troops at the manœuvres at Manassas, Va., revoked.

HATHAWAY, L. M., First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Davis, Alaska, and ordered to Fort Gibbon, Alaska.

HEIZMANN, CHARLES L., Colonel and Assistant Surgeon-General. Granted fifteen days' leave of absence.

LITTLE, WILLIAM L., First Lieutenant and Assistant Surgeon. Ordered to accompany troops from Camp George H. Thomas, Ga., to Manassas, Va., for duty.

REILLY, JOHN J., First Lieutenant and Assistant Surgeon. Granted sick leave for thirty days, from August 3, 1904.

RENO, WILLIAM W., First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Crook, Neb., and ordered to duty with troops at the Louisiana Purchase Exposition, St. Louis, Mo. Assignment to duty at Manassas, Va., revoked.

WEED FRANK W., First Lieutenant and Assistant Surgeon. Ordered to proceed from Fort McHenry to Fort Howard, Md., for temporary duty.

The following named medical officers will report to the Division Surgeon, First Provisional Division, near Manassas, Va.:

BEVANS, JAMES L., First Lieutenant and Assistant Surgeon, Fort Barrancas, Fla.

Crabtree, George H., First Lieutenant and Assistant Surgeon, Fort Jay, N. Y.

Greenleaf, H. S., Captain and Assistant Surgeon, Fort Moultrie, S. C.

Jean, George W., First Lieutenant and Assistant Surgeon, Fort Wadsworth, N. Y.

Truby, W. F., Captain and Assistant Surgeon, Fort Preble, Me.

Turnbull, Wilfrid, First Lieutenant and Assistant Surgeon, Fort Strong, Mass.

To the Division Surgeon, Second Provisional Division, near Thoroughfare, Va.:

Dutcher, B. H., Captain and Assistant Surgeon, Fort Hancock, N. J.

Fauntleroy, P. C., Captain and Assistant Surgeon, Madison Barracks, N. Y.

Ford, Clyde C., Captain and Assistant Surgeon, Fort H. G. Wright, N. Y.

Hartnett, E. H., Captain and Assistant Surgeon, Key West Barracks, Fla.

Little, William L., First Lieutenant and Assistant Surgeon.

To the First Provisional Division, near Manassas, Va.:

Baily, Howard H., First Lieutenant and Assistant Surgeon, Plattsburg Barracks, N. Y., to accompany troops from that post.

Clarke, Joseph T., Major and Surgeon, Fort Ethan Allen, Vt., to accompany troops from that post.

Howell, Park, First Lieutenant and Assistant Surgeon, Fort McPherson, Ga., to accompany troops from that post.

Jones, Percy L., First Lieutenant and Assistant Surgeon, Fort Monroe, Va.

Kiersted, Henry S., First Lieutenant and Assistant Surgeon, Fort Myer, Va., to accompany troops from Washington Barracks, D. C.

Patton, I. W., First Lieutenant and Assistant Surgeon, Fort Hamilton, N. Y., to accompany troops from that post to Gainesville, and then to proceed to Manœuvre Camp No. 1.

Robbins, Chandler P., First Lieutenant and Assistant Surgeon, Fort Terry, N. Y.

Roberts, William, First Lieutenant and Assistant Surgeon, Fort Caswell, N. C.

Schreiner, E. R., Captain and Assistant Surgeon, Fort McHenry, Md.

Shaw, Henry A., Major and Surgeon, Fort Adams, R. I.

Thornburgh, Robert M., First Lieutenant and Assistant Surgeon, Fort Warren, Mass.

Whitcomb, C. C., First Lieutenant and Assistant Surgeon, Fort McKinley, Me.

Willcox, Charles, Major and Surgeon, Fort Totten, N. Y., to accompany troops from Fort Slocum, N. Y.

Wilson, Compton, First Lieutenant and Assistant Surgeon, Fort Howard, Md.

Wilson, James S., Captain and Assistant Surgeon, to accompany troops from Fort Myer, Va.

Woodbury, Frank T., First Lieutenant and Assistant Surgeon, Plattsburg Barracks, N. Y., to accompany troops from that post.

To the Second Provisional Division, near Thoroughfare, Va.:

Brooks, William H., First Lieutenant and Assistant Surgeon, Fort Washington.

Cox, Walter, First Lieutenant and Assistant Surgeon, Fort Banks, Mass.

Duval, Douglas F., Captain and Assistant Surgeon, Fort Williams, Me.

Fisher, Henry C., Major and Surgeon, Camp George H. Thomas, Ga., to accompany troops from that camp.

Hallock, H. M., Captain and Assistant Surgeon, Fort Port, N. Y., to accompany troops from that post.

Miller, Reuben B., First Lieutenant and Assistant Surgeon, Fort Screven, Ga.

Shimer, Ira A., Captain and Assistant Surgeon, Fort Niagara, N. Y., to accompany troops from Madison Barracks, N. Y., to which place he will proceed in due time.

Williams, A. W., First Lieutenant and Assistant Surgeon, Fort Greble, R. I., to accompany troops from Fort Jay, N. Y.

Births, Marriages, and Deaths.

Born.

Devereux.—In Fort Meade, South Dakota, on Tuesday, July 26th, to Dr. John R. Devereux, United States Army, and Mrs. Devereux, a daughter.

Parker.—In Yerba Buena Island, near San Francisco California, on Monday, July 25th, to Dr. Edward G. Parker, United States Navy, and Mrs. Parker, a son.

Thompson.—In New York, on Tuesday, July 19th, to Dr. and Mrs. Edward Middleton Thompson, a son.

Married.

McCoy—Morton.—In East Leake, Virginia, on Wednesday, August 3rd, Dr. W. Kenneth McCoy and Miss Page Morton.

Murphy—Gould.—In Andover, Massachusetts, on Monday, August 8th, Dr. Frederick T. Murphy and Miss Cornelia Brownell Gould.

Purnell—Terry.—In Louisville, Kentucky on Thursday, August 4th, Dr. Julius Myers Purnell, United States Army, and Miss Edith Terry.

Died.

Anderson.—In Shackelfords, Virginia, on Thursday, August 4th, Dr. Garrett Anderson, in the sixty-sixth year of his age.

Bateman.—In Norwich, England, on Wednesday, August 10th, Sir Frederic Bateman, M. D., in the eighty-first year of his age.

Byrne.—In Russellville, Kentucky, on Monday, August 1st, Dr. Walter J. Byrne, in the eighty-first year of his age.

Cassaday.—In Frankford, Philadelphia, on Wednesday August 3rd, Dr. Francis F. Cassaday, in the sixty-fourth year of his age.

Fraser.—In San Francisco, California on Tuesday, July 26th, Dr. Simon James Fraser, United States Volunteers, in the thirty-eighth year of his age.

Harris.—In Rayne, Louisiana, on Saturday, July 30th, Dr. George R. Harris.

Henley.—In Williamsburg, Virginia, on Friday, August 5th, Dr. Leonard Henley, in the eighty-fourth year of his age.

Hutchinson.—In Leavenworth, Kansas, on Wednesday, August 3rd, Dr. James Hutchinson, in the sixty-fourth year of his age.

Lounsbury.—In Wyoming, Ohio, on Friday, August 5th, Dr. O. W. Lounsbury.

Renner.—In Industry, Kansas, on Friday, August 5th, Dr. W. H. Renner.

Steele.—In Worcester, Massachusetts, on Monday, August 1st, Dr. John McClary Steele.

Stewart.—In Marengo, Indiana, on Tuesday August 2nd, Dr. L. B. Stewart, in the eighty-fifth year of his age.

Sutton.—In Adrian, Michigan, on Monday, August 1st, Dr. Peter Sutton, in the seventy-ninth year of his age.

Thornton.—In Eaton Rapids, Michigan, on Wednesday, August 3rd, Dr. Thomas F. Thornton.

Warden.—In Union Hill, New Jersey, on Tuesday, August 9th, Dr. Albert W. Warden, in the forty-eighth year of his age.

Webber.—In Manchester-by-the-Sea, Massachusetts, on Friday, August 5th, Dr. A. Carter Webber, in the seventy-ninth year of his age.

Wiener.—In New York, on Thursday, August 11th, Dr. Joseph Wiener, in the seventy-seventh year of his age.

Wright.—In Bordentown, New Jersey, on Tuesday, August 9th, Dr. George Wright, in the sixty-fifth year of his age.

New York Medical Journal
AND
Philadelphia Medical Journal.

A Weekly Review of Medicine

VOL. LXXX, NO. 9. SATURDAY, AUGUST 27, 1904. WHOLE NO. 1343.

Original Communications.

MULTIPLE SARCOMATA OF THE SUBCUTANEOUS TISSUE, WITHOUT EVIDENCE OF A PRECEDING PRIMARY GROWTH.*

By T. TURNER THOMAS, M. D.,

PHILADELPHIA.

The following is a case of interest, chiefly because of the absence of evidence of a preceding primary growth, and because of the advanced age of the patient:

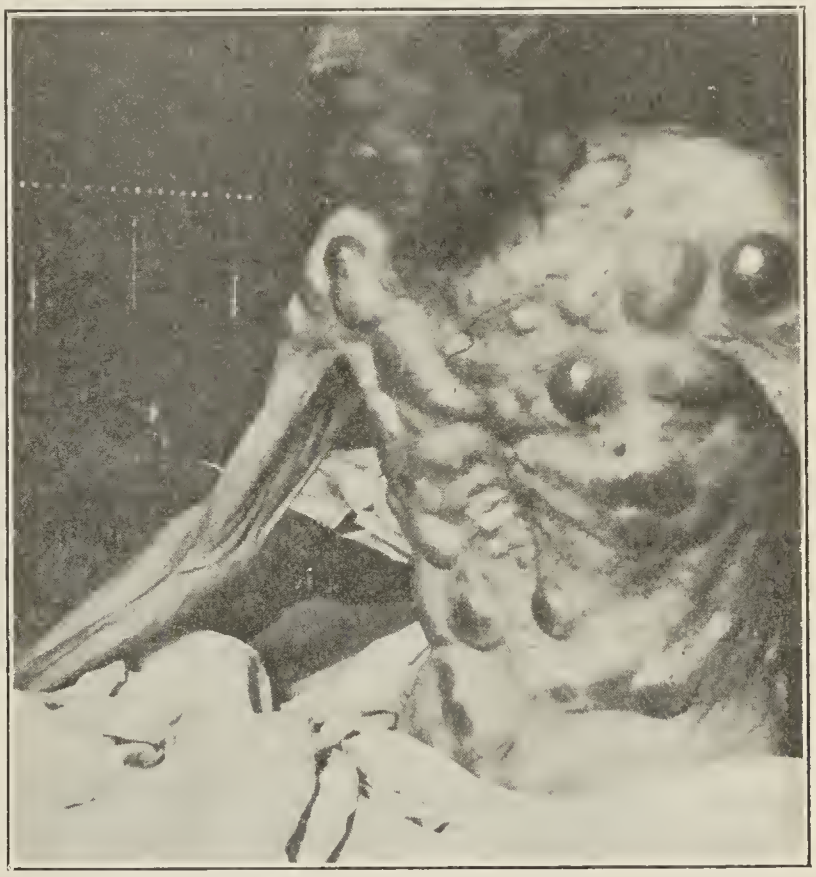
Mr. B. B. Y., seen July 3, 1902; age, eighty years. About March 1, 1902, there appeared a small tumor just above the left iliac crest, according to the patient not attached to the skin. It grew rapidly and was followed by other similar tumors, spreading out from this point, particularly over the anterior surface of the abdomen, but involving also to a less extent the back. There is one of about the size of a hen's egg over the prominence of the chin. They are rapidly increasing in size and number.

At the present time the original growth is about the size of an orange, and, although firmly adherent to the skin, it is not in any sense an outgrowth from it. Each tumor is at first freely movable, but later tends to become firmly adherent to the skin. The tumors do not seem to be encapsulated, as their edges are rather indefinite, and in spite of their mobility, they seem to have some hold on the surrounding tissue. The marked tendency to adhere to the skin points also to the absence of a capsule. The skin over the tumors, where it is adherent, is of a brownish red color. The masses are firm, not tender, and show no tendency to break down. No evidence can be obtained of internal involvement or of a preceding single growth.

The patient died on July 13th. The request for a post mortem was only granted on condition that the abdomen alone be opened and that a member of the family be present. Two nodules were removed, and the abdominal cavity palpated everywhere, especially in the region of the liver, kidney, omentum, spleen, and pelvis. Nothing suggesting a tumor was found.

A microscopical examination of the nodules was made by Dr. C. Y. White, of the University of Pennsylvania, and by Dr. Farr, pathologist to the Methodist Hospital of Philadelphia. The growth was shown to be a round celled sarcoma.

Sarcoma may take origin wherever connective tissue is found. Primary multiple sarcomata of the skin and subcutaneous tissue are very rare, but whether primary or secondary, they are always rapidly fatal. A primary multiple growth in the subcutaneous tissue is exceedingly rare. W. R. Williams says that such tumors do arise sometimes in the subcutaneous tissue as if from epidermic "rests" embedded there. Primary single sarcoma occurs more frequently in the deep fascia and its prolongations, the intermuscular sæpta, being often found between the planes of large muscles.



A case of multiple sarcomata.

In the analyses of 424 cases of metastatic sarcomata by Picot, of 1350 by W. R. Williams, and of 741 by Gurlt—2,515 in all—to establish the initial seat of the disease, not one was shown to have begun in the subcutaneous tissue. One hundred and ninety-nine of these cases were unclassified.

The question naturally arises as to whether in this case there existed an unrecognized growth previously to the development of the multiple tumors. Multiple primary malignant growths are among the pathological curiosities. Sarcomata, however, occur as multiple primary growths, and when so occurring have been most frequently found in the lymphatic glands, in the bones and in the skin (Levings).

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* Read before the Northwest Medical Society of Philadelphia, June 28, 1904.

The writer had seen this patient but once during life, and had carefully examined the whole body for some sign of a preceding primary growth. The patient, the family, and the attending physician were questioned as to the history, but nothing was elicited pointing to any other than the first tumor noticed in the subcutaneous tissue.

In looking up the literature little was found bearing directly on this case. Jackson and Fox (*Journ. of Cutan. Dis. incl. Syph.*, 1904) are reported as showing before the New York Dermatological Society a man thirty-three years old, married, who was in good health when the present disease showed itself. He denied any history of previous skin troubles. There was no history of tumors in the family. The tumors were first seen on the abdomen, and rapidly increased in number until, at the time he was shown, they were scattered over the whole body. They varied in size from that of a pea to that of a hen's egg. The skin over the tumors was unchanged, except over some of the larger ones, where it was of a bluish color. The others moved freely under the skin. They were firm and elastic to the touch. The largest masses were found on the trunk. There was no change in health until the last few weeks. In that time there was severe itching which kept the patient awake at night. He was cachectic and was growing weaker. One of the tumors was excised and examined, showing large round cells.

In the discussion which followed, Dr. Lustgarten suggested that the patient should be examined carefully for a primary tumor, especially in the abdomen, and more particularly in the rectum. He was inclined to the belief that it was a scirrhous form of carcinomatosis.

John T. Bowen, in the *Twentieth Century Practice of Medicine*, p. 642, under sarcoma of the skin, speaks of a young woman seen by him, who was almost completely covered with closely aggregated nodular lesions, deeply imbedded in the subcutaneous tissues and skin, which could not as a rule be moved over them. They were of a bluish color and not particularly sensitive on pressure. The lymph glands were enlarged. He says these cases usually show a round or spindle celled growth.

T. A. Claytor (*Amer. Journ. of the Med. Sciences*, 1904) makes the statement that some cases seem to be multiple from the start, but that it is more likely a primary sarcoma escaped notice, so rapid was the development of the multiple tumors.

Sarcoma may begin in the skin, with the development later of multiple secondary deposits in the skin and subcutaneous tissue, and the internal organs. They are chiefly of the pigmented variety, and usually originate in a nævus. They may develop in a scar or the seat of an injury, in a wart, in the base of the nail of a finger or toe, or in a fibroma of the skin. They may also begin in or beneath the normal skin. Primary sarcomata of the skin, however, are comparatively rare. Of 207 cases of sarcoma reported by Coley, only 3 began in the skin.

A typical case of this class was reported by J. C. Wilson and F. J. Kalteyer, in the *Amer. Journ of the Med. Sciences*, 1903. A pigmented mole on the forehead after injury underwent rapid growth, and showed marked vascularity. It was removed by operation. Shortly afterward disseminated nodules appeared in the skin and subcutaneous tissues, there was rapid irregular enlargement of the liver, enlargement of the spleen, rapid wasting, and a fatal termination.

Unna, from his investigations, concluded that at least some of the so called pigmented sarcomata of the skin should be classed as epitheliomata. It is generally believed, however, that most malignant growths arising from nævi should be considered to be sarcomata until the subject has been more thoroughly investigated. A primary sarcoma of the skin is softer and more vascular than an epithelioma, and is much more likely to become pedunculated.

The most common example of these multiple sarcomata is that which results from a generalized outbreak of a primary internal sarcoma, as in a bone. The secondary tumors may show round spindle or myeloid cells. They may be encapsulated or not, the presence or absence of a capsule affecting the prognosis. The multiple deposits in the skin and subcutaneous tissues are usually preceded or rapidly followed by internal involvement which usually kills the patient. The patients in those cases in which internal involvement or a preceding single growth was not demonstrated, likewise sank rapidly after the appearance of the multiple growths. The rapidly fatal tendency of the disease is well shown by a case reported by F. C. Shattuck. The patient died thirty-four days after he was first seen by a physician, and in less than four weeks after the appearance of the nodules in the subcutaneous tissue. The primary growth was thought to be in the dorsal vertebræ.

In the absence of evidence of a primary tumor, the diagnosis of these multiple growths in the early stages is not always an easy one, especially if the nodules occur in regions where lymphatic glands are found. They may then be mistaken for tuberculosis, syphilis, or other glandular conditions not acutely inflammatory. The case here reported was seen by several physicians in its early stages, and the general opinion then was in favor of molluscum fibrosum as the diagnosis. When well advanced the diagnosis is not difficult, especially if the true nature of the condition is suspected; the rapidity of growth in size and number of the tumors will suggest their malignancy, and a microscopical examination of an excised nodule will settle the diagnosis.

The advanced age of this patient is worthy of notice. Sarcoma occurring in senile tissue is very rare. They are frequent in childhood, and may even occur in infancy. They are most frequent, however, in young adult life, between puberty and about thirty years.

There is a form of sarcoma originating and spreading in the skin, the multiple idiopathic pigmented sarcoma of Kaposi. It usually begins in the skin of the hands and feet, progresses toward the trunk, and, if the patient lives, in two or three years involves the whole body. The nodules are of a reddish brown or purplish color, and are usually of the size of a pea or bean, often running into each other. They rarely ulcerate or involve the lymphatic glands. Internal involvement usually occurs, and under the microscope the nodules are found to be sarcomatous. There are cases, however, in which the nodules have not progressed beyond their primary location on the hands and feet, that have been reported as undergoing complete involution. Many eminent dermatologists oppose the view that this disease is sarcomatous.

The tumors apparently did not begin and spread in the skin in this patient, nor did they originate in the hands or feet, and spread toward the trunk. Many of the tumors were also of larger size than those usually occurring in Kaposi's disease, while the distressing pain of that condition was absent.

The diagnosis from mycosis fungoides must also be considered. This is a chronic malignant disease of the skin, almost universally fatal, and characterized by eruptions of an eczematous, urticarial, or erysipelatous appearance. Later, there is a development of pinkish or reddish nodules, tumors, or flat infiltrations, with a marked tendency to ulceration and to mushroom, or fungoid, formation. The course of the disease is essentially a slow one, except when active fungoid ulcers appear early. The lesions are frequently fugacious, appearing and disappearing capriciously. There are often pigmented spots showing the seats of previous nodules, which have undergone involution.

In the case here reported there was nothing suggesting eczema, erysipelas, or anything inflammatory, no ulceration, and nothing of a fungoid, or mushroom, appearance. There were no pigmented areas, except over some of the largest tumors, while the rapidly fatal termination is very unusual in mycosis fungoides.

As to treatment there is little to be said. Multiple cutaneous sarcomata showing improvement under the influence of arsenic are reported, but the chances for the patient under any circumstances are very poor. When a primary sarcoma of the skin is seen early it should be excised freely, as should a primary sarcoma anywhere else if possible. It should not be forgotten, however, that excision, even for diagnosis, has been followed by a more malignant course of the disease. Suspiciously active moles should always be excised early.

A CASE OF ARTHRITIS DEFORMANS OF THE SPINE (SPONDYLITIS DEFORMANS).

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This is a rare type of arthritis deformans. One of the characteristic features of this disease is the destruction of cartilages and the erosion and thickening of bone. This constant lesion makes it possible to differentiate chronic rheumatism from arthritis deformans in advanced cases, which in the beginning is frequently difficult and sometimes impossible. It is a disease of which we know but little.

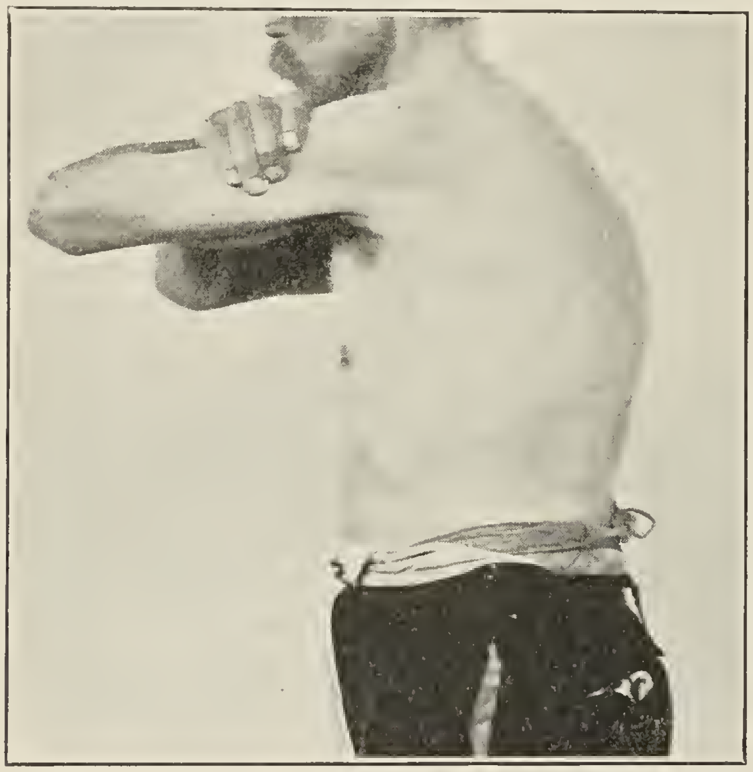
It has long been confounded with rheumatism and gout, and even up to the present it is thought by some that either of these, or a mixture of both, may cause it. The name " rheumatic gout," which it bears in common with many others, is proof for this theory and for the obscure ætiology of the disease.

In recent years, however, two theories have been advanced. The adherents of the one affirm the cause to be an infection with microorganisms whereas the others classify the disease as one of the central nervous system. Both bring proof; none, however, conclusive.

Women are more often affected than men. The disease begins usually in the finger joints, which become swollen and hot, then follows an inflammation of the synovial membranes, softening and destruction of cartilage, and finally erosion and thickening of bone. Every joint of the body may become ossified, and the patient in the last stages of the disease may be unable to assume more than one or two positions. Such an advanced stage is fortunately very rare. I have treated a patient in this stage of the disease.

The whole man was ossified, like a cuirass, the ossification interfering with the respiration; the abdomen was shrunken and covered by a loose, dry, shriveled skin; the joints were swollen, inflamed, and ankylosed; the extremities like sticks, bare of muscles and fat, the dry, scaly, anæmic skin of dirty color hanging in large folds around the long bones, the scapulæ standing out like two stiffened wings, and the swollen œdematous feet and ankles covered with sores. Indeed, one of the most distressing pictures we can ever meet. Only with the greatest effort the patient was able to open his mouth wide enough for the passage of food, increasing his intense suffering.

As stated before, the disease rarely takes such a pernicious course. When it attacks the spine it may affect every joint of it, or confine itself to the vertebræ of the neck or some other portion of it; ossification takes place and an ankylosis of the whole spine follows. Usually the patients are free from pain; an attempt to move, however, as well as jarring, will always cause it. Sometimes root symptoms, intercostal, brachial, and crural neuralgias, accompanied by atrophies of muscles not entirely to be explained by disuse, are brought forward as proof for the nervous theory. They are probably due to pressure of the bony thickening upon the spinal roots. The disease is essentially chronic.



Dr. Lerch's case of arthritis deformans of the spine.

The patient mentioned above came under my observation after he had suffered sixteen years.

The diagnosis is especially based upon the structural changes in the joints, leading to more or less complete ankylosis.

Strümpell and Marie have described an ankylosis of the spinal column as a special type "spondylitis rhizomelia," attacking men only and after middle age. The disease commences in the hip joint, then affects the spine, and finally the shoulder joints. Bechterew has described a case affecting the spine only, which becomes ankylosed and kyphotic, the shoulders stoop, the head is lowered and carried forward, accompanied by much intercostal pain.

There is but little doubt that both these types, and it is now so accepted, are merely varieties of arthritis deformans. The following is the record of a case of the Bechterew type:

Andrew Johnson, age fifty-four years, born in Sweden, has been twenty years in the United States. His occupation has been that of a sailor, but for the last year he has worked in Mississippi, driving a wagon and doing work around saw mills. He has used tobacco, not to excess, is a pipe smoker, and had been a heavy drinker up to a year ago, when he quit it. His mother died when she was sixty years old, during an attack of grippe; his father when sixty-two-years old, in consequence of a severe cold. He has no brothers or sisters, and he states that none of his relatives have been affected as he is, nor have they suffered from joint diseases. He states that he does not remember to have had any of the diseases of childhood, but has had three attacks of malaria, has passed through a severe case of grippe, and has had gonorrhœa; he denies having had syphilis. Four years ago he had rheumatic pains in the legs and swelling of feet. He entered the Charity Hospital and my service November 8th, with fever, which yielded to treatment in three days.

He states that up to seven years ago he was in perfect health, and mentions that at that time his spine was normal; he had no impediment of motion and his body was straight. One day, when driving a wagon, the horses were running and came to a sudden stop, throwing him out head foremost. He fell upon the palms of his hands and bruised his face. After the fall he was dazed and lost consciousness for a few minutes. Felt sore all over and had to keep in bed for three weeks. He commenced work again and continued to work for about four months, when he first noticed slight stiffness in the neck. This came on so gradually that he cannot even give an approximate date. He never had any pain. The stiffness slowly progressed downward, finally involving the whole spine, making it stiff and entirely immovable, bending him and forcing him to stoop.

The patient is very much bent now, the shoulders stoop and the head is carried forward. He walks sideways, throwing the left shoulder and left leg forward first. The knees are bent. The spine is the only part affected; all other joints are free, with the exception of the shoulder joints, which are very slightly involved. He cannot completely rotate his arms, though the anterior semicircle is perfect. The face is red, slightly bluish in color; the features are rather immobile; the spine in its entire extent is ankylosed; the kyphosis is marked. The chest is barrel shaped, a few moist râles over the base; respiration entirely abdominal. The heart sounds are pure and the second sound over the aorta is accentuated; left ventricle hypertrophied; it is difficult to make out dulness on account of the emphysematous chest. The superficial arteries were in good condition; pulse regular. Liver dullness decreased two inches in mammary line. Spleen cannot be made out. Nothing abnormal over abdomen.

Nervous System.—No pain, except on attempt of moving back or head, and on jarring.

Expression of face immobile, as stated; pupils evenly dilated and reacting to light; cranial nerves intact. All reflexes, knee, biceps, triceps, skin, abdominal, Achilles sole reflex, present. Romberg and Babinsky absent. No atrophies, no disturbances of sensation, pain, touch, heat and cold; no anæsthesias or paræsthesias; weakening is general, and fat and muscles, especially of the upper extremities, are somewhat wasted.

The sphincters of bladder and rectum function well. No bony excresences can be palpated along the spine. Recently, he has noticed slight stiffness of angle of jaws, which accounts for the peculiar facial expression and the monotonous speech.

Urine: Specific gravity 1010; reaction acid; no albumin; no sugar.

Renal epithelium, mucous casts, and hyaline casts.

Blood: Red cells, 3,660,000; white cells, 10,000.

Differential count: Small lymphocytes, 5 per cent; large, 2 per cent.; neutrophilocytes, 91 per cent.; eosinophiles, 2 per cent.

No trace of lues can be detected; no old scars; no glandular enlargement; no roughness of tibias; no pigmentations of skin.

The case is of clinical interest. The patient denies having had syphilis and shows no traces of lues, which excludes the idea that the disease might be a syphilitic meningitis. He has been affected for seven years, the disease slowly but steadily progressing, and during that whole length of time he has been free from pain. His hereditary history shows that there is no inherited tendency, and the cause seems to be directly due to a concussion of the spine produced by the fall, not upon the spine, but upon hands, face, and chest.

It is also of interest to notice that four months passed after the fall before he noticed the first symptoms. The absence of pain and atrophies is perhaps best explained by an absence of bony excresences pressing upon the spinal roots.

His occupation, always exposed to the inclemencies of the weather, his constant and excessive drinking for many years, coupled with cirrhotic changes in liver and kidneys, may have furnished a favorable soil for the disease—an arthritis deformans of the spine.

The treatment is unsatisfactory. Osler believes the disease to be incurable. I have seen benefit from a judicious treatment. Massage does good in all cases, and is especially to be recommended. Local applications of tincture of iodine are useful. Balneotherapy relieves and ought to be tried in every case. The natural hot springs or instead the prolonged hot bath, followed by rubbing with a rough towel, the hot air, vapor and mud baths, general and local and the sand bath, all have been used with more or less advantage. In some instances the sulphur baths, natural or prepared at home, act well.

Patients who can afford it may best select a warm and equable climate. Southern California has been highly recommended. Especial attention ought to be paid to clothing. Woolen cloth is best suited. Exposure ought to be avoided. The skin ought to be kept in good condition and the bowels open. Nutrition ought to be kept well up and the diet suited to each case. A low diet and fatigue are both very injurious.

The salicylates act well during acute exacerbations. All the iodides have been recommended and may be tried in every case. The sodium iodide is to be preferred, and is best given in milk. A tonic treatment is needed in all cases and arsenic in increasing doses has acquired a reputation in this disease.

WHAT ARE THE FACTS AND ARGUMENTS FOR AND AGAINST THE INFECTIOUS NATURE OF MALIGNANT NEW GROWTHS?

A REVIEW OF THE LITERATURE.

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Centuries of ignorance and superstition have passed form the time that Hippocrates and his associates looked upon tumors of every nature as but the expression of pent up humors of the blood. It was not until early in the seventeenth century, after the discovery of the circulation of the blood by Harvey, that this theory was overturned. Various equally superstitious notions were given credence for the time being, until Hunter (1729-93) recognized their affinity with normal tissue.

With the dawn of anatomicopathological study there burst on the medical world a new light. Investigation was making rapid progress at the hands of Bichat, Loënneck, Abernethy, Cruveilhier, and others, when all of a sudden (early in the nineteenth century) Broussais, with a blast of trumpets, proclaimed to the world that all tumors were but forms of inflammation due to organic irritation.

Right here it might be stated that this investigator was really the first, unwittingly it is true, to suggest that tumors were of inflammatory origin, and consequently, as we understand inflammation to-day, due to animal or vegetable life. About this time, or shortly afterward (1830), the microscope, crudely constructed, shed a new light on the whole subject, and with the establishment of the cell theory (dreamed of years previously by Newton), histology was a few years later for the first time placed on a really scientific basis. Müller's important work, published in 1838, on *The Origin of Tumors,* established the cellular nature of neoplasms.

In 1858, Virchow reflected with intensified light Müller's cell theory, with one or two exceptions. Cohnheim about this time received considerable attention by affirming that the only cells that were capable of originating neoplasms were detached fragments of tissues, organs, etc., sequestrated during embryonic life.

Williams, in his *Principles of Cancer and Tumor Formations,* published in 1888, endeavored to lay the foundation of modified cellular pathology in harmony with modern biology. Williams believes to the present day that they are one of the true causes of cancer, but not the only one, as he has established beyond doubt that wherever undifferentiated cells abound, malignant growths are prone to originate. So much for the history of the cell theory.

The possibility of malignant diseases being contagious had been entertained at various times for centuries, as far back as 1672, by Tulpius among others. Hunter regarded it as a morbid poison which either arose spontaneously or was acquired by contagion, and looked upon it in the same light as smallpox, syphilis, and tubercle. Hence, long before the discovery of microbes, or even before the announcement of the cell theory, malignant disease had been regarded as contagious (infectious). Consequently, their views correspond with the present position of the microbist.

Microbes, however, as we understand them today, first began to be heard of as associated with, or to be the direct cause of, cancer in the seventies of the last century. True infection, then, is of recent birth, but since that time, with improved instruments and methods of investigation, scientists all over the world have endeavored to discover the parasite of cancer, if such there be.

Briefly stated, the so called parasites which are claimed by the microbists to be the causative factor in the production of malignant neoplasms have been variously interpreted as coccidia, blastomycetes (yeast fungi, also known as Russell's "fuchsine bodies"), amœbæ, protozoa; bodies belonging to the rhizopod family, and various forms of bacteria.

The coccidial theory, in its early development, was described and advocated by Pfeiffer, Darier, and Wickham. They, however, confined their investigations largely to diseases of the skin, viz., molluscum contagiosum, follicular vegetating psorospermosis, and Paget's disease of the nipple.

The first clean description of these bodies in malignant growths was given by Thoma and Sjöbring.

Subsequently, Foa, in Italy, Ruffer and Plimmer, in England, and Gaylord, in America, described the same bodies.

The theory that malignant growths were due to (yeast fungi) blastomycetes had its principal advocates in the Italian school, among whom Roncali and San Felice are the most prominent. Borrel believes, however, that the blastomycetes. so called, are the same bodies under another name as those that the previously mentioned authors classed as protozoa.

Russell, of Edinburgh, believed at first that his so called "fuchsine bodies" were the cause of cancer, but as they are also found in tuberculous, syphilitic, and adenomtaous tissue, and even in normal tissue, the probability is that Dean is right when he considers them non-parasitic but forms of hyaline degeneration. Gaylord, however, at the present time sticks to the theory that they are protozoa, but the weight of evidence is on the negative side.

Amœbæ have been cultivated from ascitic fluid (in abdominal carcinosis) by Schandinn and Leyden, but even they do not believe they are the cause of cancer.

Very lately Sjöbring described bodies which he believes belong to the rhizopod family. Lubarsch and other competent pathologists, however, consider them degenerated carcinosis cells.

Bacteria have been described by Scheuerlen and Koubassoff, but are now regarded as contaminations and as bearing no relation to the ætiology of malignant growths.

This, then, is the history of the germ theory, and it is between the two that we must eventually choose to establish the ætiology of malignant growths.

Russell says: "Since all the phenomena of malignant disease can be accounted for without the agency of microbes, why is it any more necessary to account for the genesis of cancer than it is for the genesis of a hair or a tooth?"

In order that a disease may properly be called parasitic, the parasite must be identified, isolated, and the disease it is supposed to cause reproduced by its inoculation. This has not been done. The nearest approach to it, or that could be said by the most sanguine to have fulfilled these requirements, is the so called protozoonlike bodies found in cancerous tumors; but the fact that they are also found in various other non-malignant conditions, such as chronic ulceration, herpes, Darier's disease, etc., proves that they are not.

Of 134 men with cancer of the penis tabulated by Demarquay, only one had a wife suffering with uterine cancer. The number of cases of coexisting disease in husband and wife, where frequency of exposure is so great, are so isolated that they are no doubt a mere coincidence. Noble collected 163 cases of pregnancy complicating uterine cancer, with no coexisting disease in the husband or development subsequently that could be traced.

Mundé's complete review of this subject is very convincing: "There is in fact no proof that cancer has ever been communicated from one individual to another. There is not a single authentic case on record of a surgeon having acquired cancer during an operation for its removal, notwithstanding the frequency of exposure to contagion under such circumstances."

It is worthy of notice that of the hundreds of thousands of cancers treated in hospitals, how few attendants, if any, have contracted the disease; and it is more probable that when such a case is reported it is simply another coincidence and not an infection; at least, there is no proof that it is an infection.

Alibert, Biett, and others inoculated themselves and their pupils with the disease, but the results were negative.

Duplay, Cazin, Gratia, Saenger, Senn, Shattuck, Klebs, Maas, and others carried on extensive experimental work, both by grafting and by use of the expressed juice of cancer, and their results were invariably negative.

Even had transmission succeeded, as has been asserted recently by Boinet, Mazet, Francks, and de Rechter, it would not be a fact worth much, for it could be accounted for in the same way that a skin graft or a transplantation of a tendon or bone could be, which lives, increases in size by cell proliferation, and becomes an integral part of the tissue to which it is grafted.

Dupuytren fed animals with human cancer, but they did not acquire the disease. Alibert caused dogs to swallow the discharge from cancerous ulcers, but none acquired the disease. Boinet inoculated the abdominal cavity of forty rats with human cancer, and but one died a month after, and this one shortly after an attack of paraplegia. In this one, cancer of the liver and spinal column was found, but it must be remembered that animals in confinement are prone to develop malignant growths spontaneously, and tubercle is a common disease, especially in white mice, and one which might easily be mistaken for cancer. Boinet's fifty subsequent subcutaneous inoculations were negative in their results.

There are numerous other investigators, among whom Jeannel, Bert, Senn, Weber, Köster, are the most prominent, who have shown negative results when even animals are used, allowing them the benefit of the fact above mentioned.

As already shown, the vast majority of attempts to transplant malignant neoplasms from one person to another or one animal to another, by incision, subcutaneous injection of the juice, or otherwise, have failed, but even had it been proved beyond doubt that it could be done successfully, it would not prove the infectious nature of such tumors. It would partake more of the nature of tissue graft, and we could not say that the morbid epithelial cells themselves were not the infecting agents.

Can we tell why the pregnant uterus enlarges to twenty or thirty times its size and weight in nine months, except that the tissue cells multiply with astonishing rapidity, due to some stimulus of impregnation? We say, "It is a law of Nature." May we not just as well say that cancer cells receive their stimulus from some unknown or dormant power contained in themselves, that observes no law of Nature but runs rampant when once they start?

No one who is familiar with the subject will deny that cancer is autoinoculable. Hahn, von Bergmann, and Doyen are reported to have transplanted cancerous grafts in the same person. Numerous cases are on record where "contact infection," so-called, has taken place. Almost every surgeon has observed this at one time or another in his life. But this again partakes wholly of the nature of cell graft or tissue graft, and rather argues against any specific cancer microbe. The notable cases reported by Thorn, Fischer, Neibergall, Winter, Klebs, Maxon, and others are of the above nature.

The frequency with which incisions, certain sinuses, etc., become themselves cancerous when cancer juice is brought into contact with the normal tissue during the operation, would at first appear to argue in favor of infection; but here again we cannot exclude the above "cell or tissue graft process" as the real cause, rather than a parasite.

Topographical distributions would, "on the face of it," argue again for the infectious nature of malignant neoplasms. Arnaudet was among the first to call attention to this fact and reported the fact that cancer was much (two or three times) more prevalent in certain districts of Normandy than in Paris. He also called attention to several instances where several persons living in the same house later died of the disease. He suggested that the infection was carried by water, cider, etc.

So called cancer epidemics have been reported. Park reminds us that the territory about Buffalo is infected more with the disease than other districts, and has wittily called it the "Tropic of Cancer."

The strongest argument to offset this is, of the hundreds of thousands of cancer patients treated in hospitals, practically never has an authentic case been recorded where it could be shown that one of the attendants contracted or became infected with the disease.

As regards the topographical distribution, it is true that nervous diseases and deafmutism, for instance, are more prevalent in certain localities than in others. We might think of heredity in this connection.

It has also been shown that cancer is more frequent in rural districts than in the cities. This is decidedly against any infectious theory, as the reverse would obtain if the disease was due to an infectious agent.

Then, again, cancer and sarcoma are more common in the plethoric, well nourished, highly vitalized individual. Were it infectious, the converse would be true.

Wounds heal as rapidly in cancer patients as in others.

The opponents of the parasitic view lay great stress on the duration of cancer; and also on the fact that if it is infectious, the incubation period must be very great.

Park's answer to this argument is terse and to the point: "There are infections that kill within a few hours, as bubonic plague, cholera, etc. Others are measured by days, as tetanus, pneumonia, meningitis, etc. Typhoid in a few weeks; actinomycosis, a few months; while syphilis and leprosy if allowed to itself to kill, requires years. Point and counterpoint."

Now as regards the question of metastasis. `Park says: "There is no other disease which is characterized by metastasis in which the pathologists decline to see evidences of parasitism."

Glandular infiltration, it is true, is a strong argument for the infection theorist, yet with sarcoma we have no glandular infiltration, and if one is infectious, the other is, for they differ from each other only in the character of the cell and tissue (mesoblastic) from which they spring. One (sarcoma) is more or less encapsulated, and the other is not—hence metastasis is met with more frequently in carcinoma than sarcoma.

Löffler takes the stand that malarial infection is antagonistic to the development of cancer, and advocates the inoculation of cancer patients as a routine treatment.

Professor Kruse shows pretty conclusively that there is no ground for this belief. In Italy, for example, malarial disease is prevalent; so is cancer; while in Prussia there is no malarial disease and cancer is less frequently met with than in Italy.

The frequency with which certain congenital defective organs, particularly glandular tissue (sarcoma of an undescended testicle for example), becomes the seat of malignant disease is much easier explained by the embryonal cell development theory than by an infectious one.

Coley's claim for his serum treatment (erysipelas and prodigiosus toxines) in malignant tumors proves nothing one way or the other.

It is universally admitted that senility is predisposing to cancer development. Glands and organs that have ceased to functionate, such as the breast and uterus, furnish eighty per cent. of cancers in females.

"The lips and tongue in which both the atrophic changes consequent upon the loss of the teeth and 'border line' character of the epithelium apparently predispose to cancer."

Park likens the process of malignant development in these cases to "an attempt of the part when the tissue finds itself slowly cut off from its nutritive supply to begin breeding on its own account, in a desperate effort to hold its own, like plants running to seed in poor soil."

Jonathan Hutchinson said: "Cancer was like many another rebellion, chiefly provoked by starvation and want." This is a strong argument (a sensible one) against the parasite theory by one of its strongest advocates.

Chronic irritation no doubt predisposes to cancer. "Smoker's cancer," chimney sweep's cancer, cancer developing in workers in irritating substances, as tar, paraffin, etc., are examples of this. "Scar cancers," "lupus cancers," "eczema cancers," are of this nature.

Then, again, the frequency with which we find malignant disease grafted on chronic ulcers, "flesh warts," moles, congenital blemishes, etc., is worthy of attention. Here, again, it seems more probable that it is an attempt on the part of Nature to reproduce itself, to hypertrophy as it were, owing to increased effort at maintaining itself in face of the lowering vitality taking place from the chronic irritation to the part.

As for those who believe that a single traumatism is the cause of cancer or sarcoma, ask them to explain how it is that men are three times more liable to injury than women, yet women have cancer fifty per cent. oftener than men.

The initial lesion of cancer is solitary, and if of traumatic origin, it would very often be multiple. If it could be shown that single traumatism predisposed to cancer, it would be a strong argument for the infectionists; but unfortunately it does not.

Behla, in Germany, and Lyon, in America, have presented statistics which argue in favor of the infectious nature of cancer. Behla reports of a town of three thousand inhabitants (Luckau) with two suburbs, located in different directions. No cancer cases were reported from one in twenty years, while from the other suburb the ratio of deaths from cancer was 1 to 9 from all causes. In the one where cancer was so frequently met with, he found that the inhabitants were in the habit of watering their gardens and cleaning their vegetables with water from a foul stream. Stomach cancer prevailed. Behla suggests that infection took place from the vegetables. However, most vegetables are cooked before eating.

Lyon, in his observations about Buffalo, shows that Poles and Germans have a death rate nearly five times greater than the native born, and that stomach cancer was much more frequent than any other, and suggests that the diet of the race may account for an infection. These are hard to explain by the cell theory, yet we must not forget that these are isolated cases and if carefully studied we shall here again see the possibility of heredity.

Now as regards heredity: The vast number of observations of "cancer families" render it impossible to account for the disease without an heredity influence. Neoplasms developing in the same family, in the same organs, are too frequent to admit the argument that they are coincidental. Space will not permit of many cases being cited, yet there are so many authentic ones reported that one cannot help being convinced. For instance, the Bonaparte family: Napoleon I, his father, his brother, and his two sisters, all died with cancer of the *stomach.*

Manichow reports that in twenty-three families where intermarriage was frequent there were sixty-nine cancerous members, fifty-seven of them having cancers of the stomach.

Sibley reports a case where a mother and five daughters all died with cancer of the left breast. Many more instances could be given.

I know an Italian father with seven children, all of whom have a slight deflection of the last phalanx of the little finger of the left hand. Some unknown influence worked to produce this condition in the children (heredity). Why could they not just as well have been the subjects of cells which produce cancer?

Can we account for the resemblance of children to parents, particularly as the resemblance does not often become manifest until adult or later life? Can we account for the monstrosities that are born to apparently healthy parents?

Williams puts it: "That the molecular protoplasmic disturbance, which eventuates in inherited malignant disease, affects the whole of the archiblastic or parablastic tissues of the body as the case may be, but that its influence is most felt in that part which corresponds to the seat of disease in the ancestor."

This hereditary predisposition to malignancy is only waiting for something (perhaps constant irritation in some cases) to awake the dormant power of the abnormal heredity cells.

On the above theory we can account for the sudden change of benign tumors to malignant ones—we cannot account for this condition by the infectious theory.

CONCLUSIONS.

The various mentioned so called parasites fail to make good in fulfilling the requirements of an infecting agent. The vast majority of competent pathologists are of the belief that the so called parasites are changed or degenerated cells, not yet thoroughly classified.

Contaminations could not be excluded in the few cases that showed any growth out of the vast number of cultures taken on every known media.

The tumors produced by inoculation of blastomycetes show them to be only granulomata. Blastomycetes can be cultivated from the air. Hence, contamination is always possible. In short, it is true that no one has to the present been able to grow or demonstrate parasites in malignant growths.

The facts and arguments are so overwhelmingly on the side of embryonic cell theory that for the time being at least we shall have to believe that malignancy is due to an abnormal play of forces within the body, of which as yet we know but little.

A benign tumor is an abnormal deposit or growth of normal tissue, at least for a time; a supernumerary toe is normal tissue growing in an abnormal position. Why is not a malignant tumor an abnormal growth of abnormal tissue? A logical conclusion would be that it is.

I believe time will show a reaction in the present movement of parasitism and many of its strongest advocates will refute their theories and admit that their conclusions were reached without sufficient investigation.

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New Jersey Pharmacists.—The State Board of Pharmacy of New Jersey has issued the following list of successful candidates for registered pharmacists and registered assistants:

John T. Britton, of Long Branch; Theophilus H. Boysen, of Egg Harbor; Maxwell Bukofzer, of Paterson; Chester A. Billetdoux, of Philadelphia; Nicholas E. Capute, of Brooklyn; Giuseppe Gesualdo, of Newark; Felice Gesualdo, of Newark; Victor E. Girtanner, of Newark; Frank Hohmeier, Jr., of Jersey City; Charles A. Mamlin, of Newark; Abraham Kruger, of Newark; Charles Molz, of Hoboken; Louis A. L. Murphy, of Newark; Arnold A. Renson, of New Durham; George Schreiber, of Newark; Joseph H. Stern, of Newark; James L. Smart, of Paterson; Albert Stehling, Jr., of Jersey City; Eugene M. Schich, of Navesink; Joseph A. Stockler, of Jersey City; Simon Steckler, of Bayonne; Samuel G. Scott, of Brooklyn; Marshall A. Teller, of Jersey City; George C. Trommer, of Newark; Harry Yadowsky, of Newark; William C. Zinnel, of Lakewood.

The successful registered assistants are as follows:

Charles A. Alltemus, of Trenton; David Bergman, of Newark; Harry N. Butler, of Manhattan; Herbert R. Douglas, of Jersey City; Godfrey O. Hancock, of Asbury Park; Nathaniel Kressler, of Newark; Wilbert Mathis, of Camden; Edwin L. Newcomb, of Vineland; Edward Orler, of Brooklyn; and Daniel F. Trumbull, of Jersey City.

THE ROENTGEN RAYS IN THE TREATMENT OF TUBERCULOSIS OF THE JOINTS.*

By J. RUDIS-JICINSKY, A. M., M. D., M. E.,

CEDAR RAPIDS, IOWA.

When, in 1898, I reported my first twenty cases of tuberculosis pulmonalis, diagnosticated in their incipient stages with the help of the x ray, and in the same year two cases of tuberculosis of the skin —lupus—cured with the same agent; and further, when in 1900, I published my experiments in the direction of electrochemical action of the Röntgen rays in tuberculosis in general, I really had no idea of the actual therapeutical value of the peculiar rays, which seemed to have a certain selective power with a tendency to absorption, in attacking first all tissues of low vitality. The remarkable improvement that can be quickly obtained through raying methods, especially in all cases of tuberculosis of the joints, is almost incredible to the average individual.

We read many astounding statements in patent medicine testimonials, "sure cures," and all kinds of quackeries, in all kinds of newspapers, and we recognize such humbugs at once, knowing that in the majority of cases they are woven entirely from the imagination, and that, even when backed by a semblance of truth, such facts as they may contain are always exaggerated. There was very great danger that the quack fraternity would bring the x ray into disrepute right from the start, giving all kinds of sensational statements to the lay press, which appears always ready to countenance any sort of advertisement in exchange for cash. Fortunately the so called "x ray burn" appeared in time and taught some of these unskilled men to stop and to leave this new, clean, and altogether scientific form of therapy in skilled hands. And, besides, the medical profession, through conscientious work, experimentation, and unceasing research, has led us in a comparatively short period to marvelous results in malignant diseases and diseases hitherto uncontrollable.

The man who suffers from some form of tuberculosis, one of the most dreaded diseases of our time, the subject of symptoms causing great discomfort and without any prospect of relief save the final relief of death—or, in the case of tuberculosis of the joints, followed by ankylosis, etc., of surgical intervention—naturally feels vastly relieved when these symptoms disappear and there is a chance of producing ankylosis without the knife, which, unless guided by the x ray, cannot always remove isolated foci of infection and prevent the danger of infiltration. The x ray will not only absolutely diagnosticate tuberculosis of the joints for us in the earliest stage of development; it will, by fluoroscopic examination, not only show us the smallest tuberculous focus developing in the spongy tissue of the bone near the epiphysis, or any extension of the destructive process toward the surface of the joint, or perforation of the joint by this focus, or the inception of tuberculous synovitis or the presence of other secondary affections complicated by abscess; but it will show us the effusion by dark and marked shadows, indicating destruction, necrosis, or caries of the bones plainly, and will for the main part remedy all these troubles, at the same time building up a greatly improved muscular system about the affected joint if properly treated. The joint—hip, knee, spine, foot, or hand—soon grows stronger in every part, showing a greatly improved condition, and thus proving that joint tuberculosis offers, perhaps, the best field for the x ray worker among all the other possibilities lying in the near bright future.

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* Read by title at the meeting of the Mississippi Valley Medical Association, Memphis, Tenn., October 8, 1903.

The skiagraphs in the cases here presented show a most remarkable improvement. No elaborate, mysterious methods of treatment were used. The results were produced merely by following the rules of radial therapy. Every one of these subjects was not only helpless and weak, muscularly, nervously, and functionally, but each was undoubtedly affected with tuberculosis of a joint. Every sort of treatment had been tried and failed. Under x ray exposures not only were the patients very soon relieved, but they now feel well, strong, and hearty, and are again useful members of society, some with ankylosis, others without, according to the individual circumstances of each case.

As is well known, the insidious character of the onset of tuberculosis of a joint and the apparent triviality of the symptoms, tend to allay suspicion as to the serious nature of the case, and to result in mistakes in diagnosis—often made too late—a casual inspection being thought sufficient at the beginning of the lesion, which is ascribed to rheumatism, sciatica, cystitis, colic, bronchitis, neuritis, etc. In all these and similar cases we not only have to make a rigid, critical examination in the usual way, with the patient entirely divested of clothing, but it is our duty to inspect carefully under the x ray the joint and all the long bones entering into its formation and to note any deviation in comparison with the normal, without the dangerous aid of anæsthesia, which will always obscure the muscular rigidity which is present in these cases. We must remember that in the majority of chronic cases of joint tuberculosis, a permanent relief cannot be obtained until complete ankylosis has taken place, if the bones are badly invaded; and in acute cases, where there is not much destruction of the bones, the best results may be obtained with a simple absorption of the original focus of the infection. The proper support adapted to each individual chronic case must be supplied, so that the joint will become ankylosed in about four months under the influence of the radiation; and in simple tuberculous synovitis of any joint, we shall get a prompt cure, with perfect motion and usefulness of the joint, by injecting it once with iodoform emulsion, formalin, and glycerin, and exposing it immediately to x ray treatment. A symptomatic cure is obtained in about six weeks or sooner. It would certainly be futile to hope that a tuberculous surface, subjected to constant friction, should recover without proper support, and rest in the sun and fresh air, with careful management of each individual case; for the tissues around a tuberculous joint, being not well nourished and being, moreover, of low vitality, will soon react under the ray—sooner indeed than any tissue of healthy character.

CASE I.—A. M., fourteen years of age. Fluoroscopic examination showed tuberculous foci in the cartilaginous ends of two phalanges of the right hand, and in the middle phalanx of the right foot. The bones appear more transparent and cloudy in shadows, larger in diameter than normal, and pyriform in shape. There was a new, but thin, layer of bone, the periosteum was increased in size, and gave marked shadows. On the right hand there seemed to be in one of the phalanges a lighter area in the center pointing to the surface, where there was a small sinus. There was a tuberculous history. A microscopical examination of the pus and urine was made, the diagnosis being one of tuberculous dactylitis. Exposures were made to the Röntgen ray for ten minutes every day with a low vacuum tube at the distance of eight inches. The sinus healed in four weeks, and the patient was discharged in six weeks. No recurrence since January 10, 1900, but some deformity is present. Pain was controlled at the third exposure and the discharge from the sinus lessened. The peculiar odor disappeared at the same time. On fluoroscopic examination at the end of the treatment the increased size of the phalanges gave a better and more even shadow, just like that of normal bony substance, and the internal structure showed no foci at all.

Since that time I have treated three similar cases with the same gratifying results. It is true that healing in such cases may occur spontaneously, but raying, especially in advanced cases, is advisable, with or without operation, and in some cases will prevent recurrence. In my cases operation was not necessary, the raying being employed right from the start, and combined with all suitable hygienic and tonic treatment.

CASE II.—G. J., eighteen years of age. Tuberculous history. Examined October 18, 1900. Chronic tuberculous disease of the hip joint, of two years' standing. Three sinuses on the right. Wasting of the muscles of thigh and calf. Stiffness in the joint and pain. Treatment by traction and plaster of Paris support, with a proper opening over and a little beyond the sinuses, for raying, brought good results in four months. Exposures were made daily for fifteen minutes for two weeks, until the sinuses healed. Tanning of the skin was produced by the high vacuum tube. Exposures were then made daily for ten minutes for ten weeks with a low vacuum tube, and subsequently for ten minutes every other day till the end of the treatment. An excellent result followed, with the restoration of a useful limb. There was some motion; no wasting and no recurrence.

In another similar case ankylosis was produced in five months, when the support was removed, and so far as I know the joint has not since given any trouble.

In four cases of chronic disease of the knee joint there was no difficulty in diagnosticating the lesion, and determining between chronic disease and sprains, on fluoroscopic examination. The tuberculous effusion gives a dark, cloudy appearance. In children exposures were given daily, for five minutes in the beginning up to ten minutes, with a low vacuum tube, according to the behavior of each individual case. In older patients we have employed a high vacuum tube at the first exposure, held at a distance of from six to eight inches.

As to the probabilities, chronic tuberculosis of the knee joint apparently runs a much less severe course than that of the hip or spine, and is the form most favorably affected by efficient x ray treatment. In two cases of tuberculosis of the spine the results were negative, due probably to the fact that the cases were in an advanced stage, or to some fault in the technics with the primitive apparatus in use a few years ago. In knee cases the pain is controlled in a few sittings and "white swelling"—tumor albus—softens with marvelous rapidity. In our four cases after the elapse of four months the ankylosis produced under proper support was perfect, and so far we have had no recurrence.

The urine should be examined for albumin in every case of this kind, both before and during treatment, and the progress of x ray treatment should be carefully watched. With albumin in the urine, a peculiar itching in the exposed joint, and profuse sweating of alkaline reaction, we must stop raying at once, and give the patient a few days' rest. In eight cases of simple tuberculous synovitis a complete cure followed in six weeks. Iodoform emulsion, formalin, and glycerin was injected only once in all those cases, and the x ray was applied daily for ten minutes. In recent cases the emulsion had not been used at all. Two patients have died: one, a child of about ten years of age, after curetting of the lesion proper and x ray treatment. After six weeks the child developed tuberculous meningitis. Another patient, twenty years of age, died from shock after an amputation. Two cases of three years' standing has as yet yielded only negative results, and three old standing cases are now doing comparatively well under treatment. It is well to observe by means of a fluoroscopic examination from time to time the results of our x ray treatment, and to be constantly on the watch for any special susceptibility of the patient, auto-intoxication, the regulation of the bowels, with all the rules of proper hygiene, good nutrition, light, and fresh air, and to observe all important points in regard to the patient's general health.

Further investigation and research and more thorough technics, with proper standards in doses and with the improved apparatus of to-day, should produce better and more uniform results in radiotherapy. Some of the results given above are examples of what we can do for the benefit of our patients with a little effort, knowledge and conscientious perseverance.

BACTERIURIA.*

By EDWARD L. KEYES, Jr., M. D., Ph. D.,

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The accepted definition of bacteriuria is that of Krogius: "Bacteriuria is characterized, on the one hand, by the presence of a great number of microbes in the urine freshly passed, and, on the other hand, by the absence of pronounced symptoms indicating an inflammatory process of the urinary organs." "Absence of pronounced symptoms" implies absence of pus from the urine.

The history of bacteriuria is short. It was first noted by Roberts, in 1881. He found that in several cases under his care the patients passed a urine filled with bacteria and presenting a peculiar opalescent appearance and a strong, disagreeable odor comparable to that of dead fish. The reaction was acid and there was no tendency to ammoniacal fermentation. I can present no better description of bacteriuria than this. The odor is indeed not always strong, and it has been compared by later authors to the odor of a mouse rather than to that of a dead fish—but this is a matter of noses—and finally the urine is not always—though it is almost always—acid when passed.

During the ten years following Roberts's two papers on the subject of bacteriuria no particular attention was paid to the condition, but since 1891 many cases have been reported. Krogius, Melchior, Hogge, Rovsing, Albarran, Hallé, Legrand, Gassmann, Jeanbrau, and others have successfully added to our knowledge of the subject. Jeanbrau has collected 67 observations by various authors.

Among these 67 cases there were 56 (83½ per cent.) in which the *Bacillus coli* was the cause of the bacteriuria. In 7 cases the *Staphylococcus pyogenes albus* was found, and in the remainder, the proteus of Hauser, the streptococcus, the *Bacillus subtilis*, and a large coccus were the infective agents. Curiously enough, the *Bacillus typhosus* does not figure on this list, although from the investigations of Richardson, of Boston, and Gwyn, of Johns Hopkins, we know that bacteriuria accompanies 20 to 30 per cent. of all cases of typhoid fever.

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* Read before the Medicosurgical Society.

Among the causes of bacteriuria may be mentioned urethritis, prostatitis, and catheterism which caused ascending infection—infection from the bladder—that is, in 29 of Jeanbrau's 59 cases.[1] Yet, descending infection, beginning from the kidney, is certainly the rule. All cases of typhoid bacteriuria are of renal origin, and most *Bacillus coli* infections are derived from the same source.

The important question which now confronts us is Why are not the bacteria simply passed off from the urinary organs without multiplying in the urine? Or, if they do multiply in the urine, how can they do so without causing some inflammation in the viscera? How can any bacterium gain a foothold—if I may be allowed the term—in the constantly moving stream, unless there is some spot which it can use as a base of supplies, and whence it may draw its strength?

There is one point which bears directly upon this question of pathogenesis, and that is the condition of the urine in bacteriuria. Krogius insisted that the presence of any appreciable number of pus cells in the centrifugated urine must be taken as evidence that there was some parietal inflammation, and, therefore, must exclude the diagnosis of bacteriuria. For this reason also he excludes those cases of pure bacteriuria that are simply the initial or terminal phase of some inflammation of the urinary tract. Yet, when Rovsing denied him the right to exclude those cases in which a few leucocytes or pus cells were found amid the myriads of bacteria, he was constrained to amend his definition as follows:

"I think that even in the purest cases of bacteriuria, by making a very careful urinary examination, especially by the use of the centrifuge, we could always succeed in finding a few leucocytes; and as for the cases in which the urine contains, besides a certain number of bacteria, a relatively large number of pus cells, I think that these are not bacteriurias, but cases of light cystitis or pyelonephritis."

Here is the crucial point. Shall we agree with Krogius, that it is possible to draw the line between bacteriuria with "a few leucocytes" and a light inflammation with "a relatively large number of pus cells?" The distinction is too fine to be practical. No two observers could be expected to agree upon the exact dividing line. Nor is there any pretense at agreement in the cases reported. I find that the presence of leucocytes or pus cells is recorded in 25 of Jeanbrau's cases, while their absence is noted in only 22.

Before going any farther, then, it is essential, if possible, to establish the exact relation between bacteriuria and light catarrhal inflammation of some part of the urinary tract. In other words, is there a parietal lesion present in some, any, or all of these cases?

To decide this question we have the following data to go by:

1. The experimental injection of bacteria into the urinary organs does not cause bacteriuria.
2. Although living typhoid bacilli are undoubtedly excreted by the kidney in every case of typhoid fever, bacteriuria is encountered in not more than 30 per cent. of the cases.[2]
3. Chronic cystitis, uncomplicated by pyelitis, habitually produces pyuria, but not bacteriuria, although the *Bacillus coli,* the common infective agent in bacteriuria, is present and virulent in most cases of chronic cystitis.
4. Suppurative pyelonephritis habitually causes bacteriuria and pyuria. And when the pyelonephritis is cured, *e. g.,* by nephrectomy, the bacteriuria disappears, unless the other kidney is infected.
5. Bacteriuria with little pus is the pathognomonic sign of catarrhal pyelitis, and is the terminal phase of suppurative pyelonephritis, as it approaches a cure.
6. When a bacteriuria of long standing is treated by the internal administration of urotropin, the bacteria may be quickly driven from the urine; but they may reappear after an absence of weeks, or even months, as soon as the administration of the urinary antiseptic is discontinued.

In other words, the mere presence of virulent bacteria in the urinary organs, whether experimentally introduced by the pathologist, or transmitted by the kidney in the course of a typhoid fever, or mingled with the pus of cystitis, is not enough to cause a bacteriuria. Something more is needed; and that something is a parietal lesion, which is often in the pelvis and calices of the kidney. For observe: When pyelonephritis does exist, there is always bacteriuria —take the urine of any such case and centrifuge it; the supernatant fluid always remains hazy with the swarm of bacteria. And it is easier to cure this bacteriuria effectually by removing the kidney, the source of infection, than by the administration of urinary antiseptics;[3] for although these may clear the urine almost immediately, bacteria still lurk in the parietal lesion and reappear in myriads at the earliest opportunity unless treatment is continued for many weeks.

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[1] There is a discrepancy in Jeanbrau's tables. He reports 59 cases and tabulates 67.

[2] The same argument might be adduced in reference to the colon bacilli, which probably pass unnoticed through the kidney with every attack of constipation.

[3] Let this not be understood to advocate nephrectomy as a treatment of bacteriuria.

Here, then, is a practical explanation of bacteriuria. Whether there is much pus or little pus, or even, on some particular occasion, no pus at all, bacteriuria is no inexplicable infection of the urine; it is always an evidence of some parietal lesion. It is the clinical sign of catarrh somewhere in the urinary tract. Like pyuria, it is a symptom, not a disease.

If I have based this conclusion upon theoretical rather than upon clinical data, it is because the latter are so hopelessly confused. I find, by referring to the original reports of the cases collected by Jeanbrau, that no two authors take exactly the same point of view in the matter. What is pyelitis for one is cystitis for another and perhaps a mere bacteriuria for a third. Yet, while this confusion is discouraging, the one striking feature of the series is that almost every case gives evidence of some active disease of the urinary organs within a few weeks of the time that the bacteriuria set in. In 27 cases the inflammation was in the urethra, prostate or bladder, in 25 there was nephritis or pyelitis,[4] nine had hypertrophied prostates, and only two were free from evidence or history of urinary disease. One of these (Marovnikoff) was an infant with fœtid diarrhœa and œdema of the legs; the other (Hallé) an adult "without history of urinary disease." Each of these cases might fairly be suspected of catarrhal pyelitis.

Having determined that there is a lesion somewhere, the next step is to locate it. And here, it must be confessed, the greatest confusion prevails. In their anxiety to report cases of bacteriuria with all the bacterial details, many writers upon this subject have taken small pains to study the practical aspects of the matter. Yet, from the carefully reported cases several conclusions may be drawn, viz.:

1. The parietal lesion is not in the bladder. I need not delay upon this point, since it has been minutely debated by the earlier writers, and all are agreed that there are no bladder lesions in bacteriuria.

2. The prostate and seminal vesicle are sometimes at fault. When bacteriuria originates in disease of these organs the urine in the bladder is infected, while that in the ureters and kidneys remains clean —hence we speak of "partial or vesical bacteriuria." While there are very few proved cases of this variety, the cases of Krogius, Hogge, Goldenberg, and Gassmann undoubtedly belong here. I have seen two such cases. The one lasted but one day, during a subacute posterior urethritis; the other, a staphylococcus prostatovesiculitis of seven years' duration was most of the time a pyuria, but frequently a pure bacteriuria.

3. But with the surgical inflammations of the ureter and kidney, viz., pyelonephritis, catarrhal or suppurative, it is an entirely different matter. Here the bacteria reign supreme, and "total or renal bacteriuria" (the infection extending throughout the urinary stream) is the bacteriuria encountered in practice. As already remarked, a combination of bacteriuria and pyuria is characteristic of all cases of pyelonephritis, whether severe or mild. But there are a few types of bacteriuria, with little or no pyuria, that are sufficiently common to merit attention, more especially as they are usually misunderstood.

Typhoid bacteriuria is of the first importance. This is an acute catarrhal pyelitis which may continue for weeks or years and lead to chronic interstitial nephritis. The accepted treatment for this disease, viz., antisepsis by urotropin and diuresis by mineral waters, is almost always efficient, but it is commonly pursued with the idea of merely cleansing the urine of its bacteria. This is not enough. Unless the treatment is continued for several weeks after the urine becomes perfectly clear, there is no assurance that the bacteriuria may not relapse and, by its persistence, endanger the kidneys of the patient and threaten the health of the community.

Puerperal bacteriuria is a subject that has received no attention whatever. No systematic study has been made of the few cases that are scattered through the literature of recent years, although I am convinced that any obstetrician could collect enough cases to merit notice from his own practice. For though I have had the opportunity during the past two years of examining the albuminous urine of only three pregnant women, and in each case the diagnosis of puerperal nephritis had been made by the obstetrician in charge, yet, of those three urines, two showed an absolutely characteristic bacteriuria, presented the symptoms of acute pyelitis, and were immediately improved by diuresis and urotropin. From this experience it would appear that such cases must be comparatively common. Indeed, no more ideal conditions for the production of a *Bacillus coli* pyelitis could well be arranged than those of the last weeks of pregnancy, with pressure on the ureters to cause congestion of the kidneys and intestinal stasis to supply the microbe. The subjective symptom of the condition is fever, mild or severe, the explanation of which can only be found in the urine.

From a prognostic point of view the recognition of this inflammation is most important, for, if treatment is undertaken promptly and energetically, it may, practically, always be cured and chronic interstitial nephritis prevented; while, if left to itself or combated only by the usual methods employed in the treatment of nephritis, the kidneys will probably be permanently damaged.

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[4] Six duplicates, four of them prostatics.

Finally, there is a large class of genitourinary cases in which bacteriuria is a most important feature. These are the cases of *chronic catarrhal pyelonephritis*. We occasionally see them in women, apparently puerperal in origin. Many patients with longstanding stricture have pyelitis of this sort, and tabetics with incontinence of urine are similarly afflicted. But the cases one meets with most commonly are the prostatics. They may have but few bladder symptoms, and may or may not be using the catheter. Their urine, when passed into two glasses, shows the following characteristics: the first flow contains free pus and shreds from the prostatic sinus—these evidences of local inflammation need not interest us at present. The second flow is uniformly hazy and acid. If allowed to stand for several hours the haze remains undiminished and there is no appreciable deposit at the bottom of the glass. The centrifuge does not affect the haze and throws down a mere trace of sediment, containing pus cells, bacteria, epithelia from the renal pelvis and a few renal casts. The urine can be cleared only by filtration, and a faint albuminous reaction may then be obtained by acidulation and boiling, though Heller's test usually gives a negative result.

Such are the urinary signs of a mild case. If neglected, the interstitial nephritis gradually becomes chronic and incurable, attacks of retention cystitis interrupt the even course of the disease, and, sooner or later, a more severe infection occurs, a suppurative pyelonephritis, the familiar "surgical" kidney.

Bacteriuria of prostatic or vesicular origin is rather more difficult to interpret than are the renal cases. In the kidney bacteriuria is evidence of mild pyelonephritis, whether a clinical entity or the beginning or end of a suppurative process; and even when pus is present the bacteriuria persists, only obscured by the pyuria: this swarm of bacteria in the urine is part of the clinical picture. Not so in prostatitis or seminal vesiculitis. The distinguishing feature of the urine in these inflammations is the absence of bacteriuria. Pus there may be in any quantity; but the centrifuge deposits this and leaves no bacterial haze. I do not pretend to explain how, in some exceptional cases, the bacterial proliferation becomes so superabundant. It is notable, however, that every case of bacteriuria reported, in which the infective agent was the staphylococcus, streptococcus, or proteus—*i. e.*, in which the urinary reaction was alkaline—with the exception of a single case,[5] was a prostatic or vesicular bacteriuria. In one of my own cases, a mild posterior urethritis only a few weeks old, the urine one day assumed an unwonted opalescent hue, which proved to be a pure bacteriuria, lacking even the pus that had been in the urine the day before. Three tablets of urotropin were given, and the bacteriuria disappeared, not to recur during the few weeks which the inflammation lasted. The cause of so sudden a transformation is obscure: the fact remains.

The *treatment* of bacteriuria is simple and, in the puerperal and typhoid cases, often brilliantly effective: urotropin to the limit of tolerance—two, four, six, eight tablets a day—and diluent waters. When the bacteriuria is due to other causes, such as kidney stone or retention cystitis, these must be treated: similarly, bacteriuria in general sepsis is but an insignificant by product. In all cases constipation must be energetically combated, since the stagnant intestine is the chief source from which the bacteria are reinforced. The prostatic and vesicular cases may be very rebellious and, in many of them, urotropin appears to be quite valueless. Prostatic and vesicular massage, together with deep urethral instillations of the various silver salts, are our main reliance.

To sum up—

1. Bacteriuria is evidently not "a simple urinary infection without parietal lesion."

2. The theory that bacteriuria is but a symptom of catarrh in certain parts of the urinary tract is, on the other hand, fully in accord with the observed facts.

3. Thus bacteriuria is a symptom, not a disease.

4. Yet it is the chief, the only striking, feature of certain diseases, notably certain varieties of catarrhal pyelitis.

5. Such are typhoid pyelitis, puerperal pyelitis, acid retention pyelitis.

6. Any of the these may become suppurative.

7. It would further appear that cystitis never causes bacteriuria.

8. Prostatitis and spermatocystitis, exceptionally, cause bacteriuria.

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109 East Thirty-fourth Street.

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[5] Pedenko's case (*Staphylococcus albus*), occurring during an acute septicæmia.

PULMONARY TUBERCULOSIS: SOME GENERAL CONSIDERATIONS AND ITS TREATMENT.

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Without doubt there is no disease at the present time receiving more consideration, being more carefully investigated by medical men throughout the civilized world, than pulmonary tuberculosis.

Notwithstanding the efforts of the original investigator in this field of science, the mortality statistics of every great city stand as silent evidence to the fact that the many problems which the disease presents have not been solved.

In the last census year 109,750 persons died of pulmonary tuberculosis. Of these 71,040 were between the ages of fifteen and fifty years; between the ages of twenty and thirty years there were 31,042 deaths. The old saying that "death loves a shining mark" is truly applicable to the victims of tuberculosis. These unfortunates have in most instances reached maturity, they are people of brilliant intellect and decidedly valuable citizens to the community in which they reside, and their death is frequently a public calamity.

It is unfortunate indeed that the world should be robbed in this way of all that is best in manhood and womanhood, while the more undesirable element seems to exist and thrive, like weeds in a vegetable garden.

The progress of scientific medicine during the past decade has indeed been phenomenal; the original investigator has made contributions of seemingly untold value to us in the diagnosis and treatment of many formidable types of disease; yet new problems in the care and treatment of the tuberculous patient are constantly arising, to which the many contributions to scientific medicine seem less applicable than in the case of many other prevalent diseases. Notwithstanding this, however, we are able to-day to treat tuberculosis more intelligently than our grandfathers of years ago.

We have gleaned facts of decided value to us in the treatment of this insidious disease, and the discovery of the bacillus of tuberculosis, the specific causative agent in the disease, marks an epoch in original scientific investigation. We must not lose sight of the fact, however, that in a given case of tuberculosis we are dealing with a human being whose physiological resistance to disease has been practically destroyed; the tubercle bacillus is a factor of secondary consideration. We have no medicinal agents that will destroy tubercle bacilli within the lungs, and can only hope to arrest the progress of the disease by so nourishing our patient as to increase his physiological resistance, to restore, as it were, his natural immunity to disease.

In the treatment of pulmonary tuberculosis an early diagnosis is most essential, especially in the case of those able to avail themselves of a climatic change, and it would appear that most brilliant results could be achieved in the treatment of the disease if it were recognized before ocular demonstration by the germ. We are aware of the fact that in many instances the disease follows typhoid, measles, scarlet fever, pneumonia, etc., and careful observations of these cases during convalescence would enable us to detect pulmonary involvement at a most incipient stage, and long before ocular demonstration of the specific microorganism of this disease. If we desire successfully to combat the ravages of tuberculosis, and I do not mean merely to prolong life a few years, patients must change their environment early, making their home in the right place at the proper time until they are well, not in the right place, at the wrong time, until they are dead.

The construction of sanatoria throughout the world, and especially of sanatoria for the care of the poor and poverty stricken, will prolong life, and insure good care and skilled treatment to thousands of unfortunates afflicted with tuberculosis. The sanatoria may not be located in an especially favorable climatic zone; nothwithstanding this, the pure air of the country, away from the crowded, smoky city in a climatic zone of relatively great humidity, and better sunshine will result in the arrest of the disease in a large percentage of otherwise hopeless cases. The benefits of such a change are not, however, to be compared to a residence in a climatic zone of relatively less humidity, more sunshine, and greater elevation. Colorado, New Mexico, Arizona, Texas, and California offer a varied field in the choice of climate, fróm which the physician may choose according to existing conditions in his patient's lungs. A climate possessing the greatest possible amount of sunshine, a mild climate, a porous soil, a pure, dry atmosphere, and light winds would appear ideal.

On the treatment of pulmonary tuberculosis I have contributed several articles during the past year; the one on tent life appearing in the *Indiana Medical Journal* applies more particularly to selected cases. Professor Flint, in the early seventies, published a carefully recorded history of sixty-two cases of consumption in which an arrest of the disease took place; in twenty-three of these cases he stated that the arrest took place under hygienic measures without medicinal treatment, of which the most important related to change of habits in regard to exercise and outdoor life. In those cases, also, which were treated medicinally the improvement corresponded with a greater or less change in the habits of life, in relinquishing sedentary callings for other more active and open air pursuits. We have reason to believe, then, that the advantage of a change of climate is in a measure subsidary to a change of habits as regards exercise and outdoor life. In exercising out of doors the mind must be occupied as much as possible, otherwise life in the open air soon becomes wearisome to the patient, and, unless under one's immediate observation, few patients will remain out of doors the maximum length of time. Some means should be resorted to for securing an agreeable exercise of the mental faculties together with the outdoor life.

Discipline is an essential factor in securing the intelligent cooperation of those patients whom we have under observation at a sanatarium. Major Daniel Apple, of the army, informed me that the brilliant results he attained in treating tuberculosis among the soldiers at Fort Bayard were in a measure due to the strict enforcement of discipline. With the layman we cannot resort to military methods, but we can insist on strict obedience. Patients must learn to do what they are told, and to obey all rules governing their conduct while under observation. Regular hours for rising and retiring, promptness at meals, and a stated time for nourishment between meals, all tend toward harmony and the accomplishment of the desired end in the sanatorium treatment of pulmonary tuberculosis. This applies particularly to early cases of infection with no complications present.

Especially in early tuberculosis an abundance of animal and fatty food, with bread, vegetables, and all the various preparations of grain for mingling with the fat, are indicated. Nutritious food of this character must be supplied early and freely to every patient. Cream and sugar ought to enter largely into the diet of a consumptive. Every article of wholesome food, pleasant to the patient, is indicated, and the appetite is to be encouraged in every way possible. When digestion fails, as every practitioner knows, serious obstacles will sooner or later present themselves. I believe it is important to supply the consumptive with food at night as well as during the day, inasmuch as the vital powers are at low ebb at this time.

Immediately on awaking in the morning, half a pint of hot milk may be given the patient, alone or with chocolate and bread and butter. For breakfast, three fourths of a pint of milk, with chocolate or coffee, oatmeal and eggs, or bacon in addition. At 11.00 a. m., half a pint of milk or good beef tea, with bread and butter. An early dinner with meat, milk and egg pudding; an early tea, consisting of milk with coffee or chocolate and bread and butter and two eggs; during the night a cup of milk may be left at the bedside of the patient to be taken should he awake.

This, in a general way, with such modifications as may be necessary, is the diet for the consumptive. The medicinal treatment of the disease is purely symptomatic. Hæmatinic tonics, to overcome the ever present anæmia, are usually indicated; stomachic tonics, to aid digestion and improve the appetite, are at times useful. Thiocol, guaiacol carbonate, creosote, and cod liver oil have their indications. Cod liver oil, however, must be administered with great care, as it is prone to derange the stomach.

All patients remain out of doors at least eight hours a day. Those patients with early pulmonary involvement, and able to walk about, are instructed in breathing exercises.

There is a sociologic aspect to the tuberculosis problem, which the medical adviser must take into consideration. One of the saddest sights to witness is a sufferer with tuberculosis, weak and feeble in every way, physically unfit for labor, struggling in a large city for the mere necessities of life, far away from home and friends, to become finally a charge upon the county.

Thorough financial equipment is a most essential requisite to a patient seeking a climatic change, which necessitates a long journey from home; yet it is indeed surprising the many who will journey to a famous health resort, almost penniless, expecting to engage in the keenest competition in the struggle for existence. It is needless to say that under these conditions an exceedingly small percentage of patients survive.

The solution of the many problems which pulmonary tuberculosis presents calls for their careful consideration at the hands of the conscientious practitioner. The recognition of the disease before ocular demonstration of the germ is indeed possible in a very large percentage of cases, which means early diagnosis based on clinical signs within the chest. The immediate change of environment to a suitable climate in those financially able, and the treatment of the disease along rational lines, will reduce the mortality statistics in pulmonary tuberculosis to a less appalling figure.

92 State Street.

National Association of Army Nurses.—The National Association of Army Nurses held a business session in Social Hall, Tremont Temple, Boston, on August 17th. Mrs. Fannie T. Hazen, of 61 Oxford Street, Cambridge, was elected national president. Mrs. Hazen is president of the Massachusetts Army Nurses' Association. She possesses rare executive ability, and is highly esteemed by her associates.

REMARKS ON THE USE OF THE NASAL SAW.*

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In speaking of the use of the nasal saw, I will limit my remarks to its employment in the cases in which it finds its truest field, namely, the removal of cartilaginous and bony outgrowths of the sæptum, in the form of either spurs or ridges. Of its use in the removal of portions of the turbinates, as is sometimes advised, I cannot see that the indications, except in rare cases, as in my experience reduction of localized or general hypertrophies or hyperplasiæ of these bodies is better obtained by the use of the snare and the cautery.

The indications for the employment of the saw, whether of drainage or aeration, or as a preliminary to the treatment of nasal neuroses of whatever nature, are so well known that it would be a matter of supererogation to go into details. As to the preliminary or subsequent saw operation in cases of marked deflection of the sæptum, with or without external deformity, each operator proceeds in his own special way. Personally, I prefer the preliminary operation with a following period of reparation before the definitive operation, when there is enough thickening of the sæptum to interfere with the functions of the nose. In these cases, it seems to me to simplify the adjustment of the parts which have been broken up, and also gives the patient the benefit physically which is one of the marked effects of the restoration of the functions of the nose, before the more serious operation is done. The only contraindication to operation that I am aware of is the hæmorrhagic diathesis, and even that is relative. Preliminary treatment is not in the least a necessity—in fact, it seems preferable to operate at the time of the first visit, provided the patient is able to remain quiet, physically and mentally, for a few hours, as any exertion is apt to start a hæmorrhage. I can only consider as time wasted any prolonged treatment tending toward "getting the nasal muscous membrane in shape" for the operation; besides which, immediate operation prevents a period of worry and apprehension on the part of the patient.

The two most important points in operating are, first, quickness of operation; second, thoroughness. Several cases which I have seen in consultation when subsequent hæmorrhage was persistent and annoying have, on careful examination, shown incomplete removal, with spiculæ of bone as the foci of irritation. The removal by the saw or rongeur forceps of these has resulted in almost immediate cessation of the bleeding.

The use of the suprarenal extract, or adrenalin, unquestionably gives a fair field for operation, but since the reports of secondary hæmorrhage have become numerous, it would perhaps be advisable to see the patient quite frequently during the first twenty-four hours succeeding the operation. The saw that I prefer is one the handle of which is bent at an angle, as one has a better view of the operative field and all the power and control of the instrument necessary. The blade should not be too thick and I prefer one not too sharp, thus diminishing the chance of "binding" or catching.

After thorough cleansing of the nose with an alkaline wash and the use of cocaine in a spray, a cotton pledget, thoroughly soaked in a ten per cent. solution of cocaine, should be passed into the nose and its further end carried well beyond the limits of the operative field—after which the head should be held bent well downward, so that the excess of cocaine may drain forward and gain exit from the anterior naris. In so doing, one is practically free from danger of cocaine poisoning, and thorough anæsthesia is obtained at the end of from five to eight minutes. There are cases in which cocaine seems not to have its proper effect or in which an idiosyncrasy favors poisoning. In these cases, eucaine B may be used. Either of these is to me preferable to ether, as one gains the help of one's patient and has none of the disagreeable after effects of general anæsthesia.

The saw should then be introduced into the lower meatus of the nose under the anterior end of the part to be removed, and a somewhat crescentic incision made, cutting first inward, then upward, and then outward, being careful, of course, not to cut into the opposite side of the nose, when the deflection is marked. At the extreme upward end of the incision, resistance ceases after cutting through the bone, and it is advisable to finish with the scissors, or by turning the saw and cutting downward to meet the first incision, thus obviating the leaving of a rough projecting edge. After the removal of the pieces sawed off, thorough cleansing of the nose by the alkaline spray, and the immediate application by insufflation of a powder consisting of equal parts of nosophen and alumnol is advisable.

Nature, it seems to me, is an adviser whose suggestions may well be followed. Thus, for several years, I have not used a plug of antiseptic gauze or cotton after the operation. A clot will form, which should be allowed to remain for twenty-four hours. There will be a certain amount of serum expressed from it, and possibly some slight bleeding, which, however, is generally easily controlled by simple compression of the nose, with the head held forward. Ice may also be applied to the back of the neck. Plugging may be resorted to in case hæmorrhage is persistent or excessive.

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* Read before the Hospital Graduates' Club, of New York. April, 1901.

The operation should be completed in from three to five minutes, and the patient kept quiet afterward for about half an hour, when he may be allowed to go home.

Twenty-four hours later one will find the nose, as a rule, quite clear with a small clot at the site of the operation. After cleansing this should be removed by blowing the nose or with cotton and the same powder applied. It is advisable to do this every day for four days, then every second or third day; and at the end of two weeks the patient may be seen twice a week. From time to time, granulations may be snipped off, in order to prevent a resultant thickening at the site of the operation; and at the end of six weeks perfect healing will have occurred.

During the course of treatment the patient should be cautioned against blowing the nose vigorously, lest septic matter be introduced into the middle ear. Blowing but one side at a time is a wise precaution, as by this proceeding the other side acts as a safety valve if too much force be used in clearing the nose. I have seen so many cases of septic infection with fever, etc., or septic amygdalitis coincident with the use of the plug, that, as above mentioned, I have completely discarded its use for the past ten years.

These procedures, gentlemen, have given me such satisfactory results, that I am emboldened to present them to you, hoping that what has been of avail to one may either directly or suggestively be of use to the many.

44 WEST FORTY-FOURTH STREET.

Impure Food Products.—The State Dairy and Food Commission has extended its activities from dealers in adulterated milk and beef to those who sell impure ice cream, soda water, and other soft drinks. A number of small shop keepers were arraigned before a magistrate on August 12th for selling artificially flavored and colored soda water syrups. It is often difficult to trace an attack of summer diarrhœa to its true source; but if it is possible to repress the sale of impure penny articles to the children, some of the cases can undoubtedly be prevented. In one of the instances in which an arrest was made, the chemical analysis showed that strawberry flavoring and strawberry coloring, both of which were bought with the understanding that they were made from pure fruit, were really composed of coal tar products, and the coloring contained 1.5 per cent. of aniline dye. It is understood that the attorney general of Pennsylvania has requested the courts all through the State to expedite the trials of cases brought by the commission.

CASE OF POISONING BY ILLUMINATING GAS.

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While probably there is no better term to apply to cases of poisoning by gases than asphyxia, yet they are cases of poisoning equally as much as many of the other forms. Taylor says that the differences are, first, instead of the intoxication being by liquids or solids it is of gaseous origin; and secondly, instead of the intoxicant being applied to the mucous membrane of the stomach it affects the air cells of the lungs. Here, of course, is a large surface for absorption and we must take into consideration the cumulative action. The remote effects, as well as the immediate ones, threaten an untoward termination.

The composition of carburetted hydrogen varies greatly. An analysis shows that 1,000 parts contain of hydrogen 464.3; of light carburetted hydrogen, 389.3; of carbonic oxide, 56.2; of olefiant gas, 38.6; of watery vapor, 24.8; of nitrogen, 22.2; carbonic acid, 4.6. The amount that will destroy life in the lower animals has been found to be an atmospheric content of 12 per cent., after an exposure of a few minutes. It has been suggested that in man, a room containing 9 per cent. of gas has produced death when an individual has been exposed for several hours. If this can be considered authentic the case hereafter detailed will be all the more interesting, from the fact there was a probable exposure of more than eleven hours.

L. H., aged forty-four years, was admitted to the Indianapolis City Hospital, April 27, 1904, at 9.30 a. m. No history was obtainable at this time, other than it was a case of poisoning. At a later period, however, a meagre statement was made by a gentleman who had occupied the same room at a hotel with the patient a day earlier, when there was no indication of any form of sickness. The informant found the door locked at a late hour on the previous night, and hence occupied another room. On the following morning there was no response to a loud knock upon the door, but there was a distinct odor of escaping gas, and the door was broken open. The room was full of gas, which was still escaping from the gas burner; the patient lay unconscious on the bed and was immediately sent to the hospital.

Upon arrival at the hospital an examination showed a well marked coma, skin cold, pulse weak and rapid, breathing stertorous, pupils contracted, and a well developed cyanosis. The exhalations from the lungs furnished an odor somewhat resembling that of illuminating gas.

Hypodermic injection of $^1/_{30}$ of a grain of strychnine was given, and also a pint of hot black coffee was administered per rectum. Oxygen was given for a period of five minutes each half hour when the patient was cyanotic. At six o'clock in the evening symptoms changed very little, although there was a slight improvement in the pulse and respiration; but the patient was still in a profound coma, and at this time the body was bathed in a profuse perspiration and the pupils were dilated.

During the afternoon of the 28th the patient was less cyanotic, and when undue efforts were made to arouse him a few words were imperfectly spoken, but not to the completion of a sentence, and even then with the eyes closed. Several hours later the pupils became normal, urine was voided, the cyanosis had almost disappeared, and, although in a semiconscious condition, the patient drank a glass of milk. Previous to this time the strychnine had been given hypodermically each four hours, milk and whiskey had been administered by the rectum, and he had been catheterized each six hours. At six o'clock on the 29th the patient became cyanotic, and all symptoms seemed to be aggravated for a period of two hours. Several ineffectual attempts were made to move the bowels by enema, and the use of Dorsey's magnesia mixture was also unsuccessful. A successful enema was given on May 1st, which consisted of ox gall ½ ounce; magnesium sulphate, 1 ounce; turpentine, 1 ounce; and normal salt solution to make one pint. On the following day this was repeated with good results. There seemed to be some nausea and vomiting which responded to several doses of cerium oxalate and sodium bicarbonate. All symptoms seemed to show a slight improvement. The strychnine was discontinued, and in its stead aromatic spirit of ammonia and whiskey were given.

On May 3rd, the patient was sensitive to pain and would reply to questions when urged to do so and kept aroused by the nurse. For several days following this period there were involuntary discharges from the bowels and bladder. The diet consisted principally of eggnog and coffee. From this period until the 15th there are no especial points of interest to note, with the exception that the patient was listless and stupid, and briefly answered questions propounded by the nurse. Two days later he was able to leave the hospital.

It is probably unnecessary to comment upon the points of interest in this case, but it does teach us that it is possible for an individual to be confined in a small room in which there is escaping gas for a period of eleven hours, and yet recover. Mention might also be made that the body temperature was 97° F. when the patient was admitted, and upon the second day reached 102° F., and from the evidence of a pulmonary engorgement it would not have been strange if pneumonia had followed. After forty-eight hours the temperature became normal, and for ten days was at intervals subnormal, while the pulse was slow and intermittent. The same condition that caused the bowels to fail to respond existed elsewhere, which was shown by an incident which occurred on the evening of the third day; this was the lodgment of a small piece of apple in the throat, threatening an asphyxiated condition, necessitating its removal by the physician.

To the careful and watchful method of the internes, Dr. T. R. Cook and Dr. H. H. Johnson, in the performance of their duties is very largely due the recovery in this case.

STATUS LYMPHATICUS AND DEATH FOLLOWING CHLOROFORM ANÆSTHESIA.

By FREDERICK A. SIMMONS, M. D.,

TOMPKINSVILLE, BOROUGH OF RICHMOND, N. Y.

Having noted the more frequent partial reports of death from chloroform anæsthesia, and references to the possibility of existing lymphoid diathesis in patients thus dying, it might be of interest to note the following case, which occurred at the S. R. Smith Infirmary, Staten Island:

A patient, aged ten years and seven months, came into the hospital suffering from general muscular twitchings, and presenting a typical adenoid facies. Upon examination, enormously hypertrophied tonsils and numerous adenoid vegetations on the pharyngeal walls were found. The chest was flat, and presented large costosternal nodules. The extremities of the long bones were somewhat enlarged. No other signs of rhachitis were present.

On auscultation of the lungs a few bronchial râles were noted. The heart was absolutely normal. Further examination revealed a long, tight prepuce and a cold, moist penis. Circumcision and removal of adenoids and tonsils was advised, and the patient was taken to the operating room.

Chloroform (Squibb's) was used as an anæsthetic, and although the patient at first coughed and struggled a little, he soon breathed nicely and was shortly under its influence. Circumcision was rapidly performed and the anæsthetic discontinued. The head was lowered and the adenoids and tonsils removed without further anæsthesia. At the last stroke of the curette the anæsthetist remarked the sudden failure of the pulse and immediate cyanosis of the face. Respirations ceased, and stimulants were at once administered, such as strychnine, nitroglycerin, amyl nitrite, artificial respiration by Sylvester's method, flagellation, ether spray and electricity to the chest, dilatation of sphincter ani, ice enemata, and oxygen inhalation.

After working for three minutes the respirations started and continued for three or four inspirations, then ceased. Treatment was continued for forty-five minutes, but as the apex beat was at no time visible and the pulse never returned, further treatment was finally abandoned.

The coroner was at once notified and an autopsy was performed, which revealed the following conditions: Extreme venous engorgement and dark fluid blood everywhere present. The vessels of the brain showed deep injection, and there were adhesions between the dura and pia. On the left hemisphere, over the motor area, for a space of about two inches, were numerous scattered tubercles. Otherwise the brain was normal.

Upon opening the chest a large two by three inch thymus gland, deeply congested, was found. The lungs were normal, the bronchi containing no blood, but simply frothy mucus. The pericardium contained about three fourths of an ounce of fluid. The heart was not enlarged and the right side was perfectly flaccid, while the left was firm. Upon section there was no blood in the heart, it having stopped in systole. The muscle was normal and showed no signs of myocarditis. The valves were absolutely normal. The bronchial lymph glands were somewhat enlarged. Examination of the abdominal viscera revealed, with the exception of congestion, organs normal, except the spleen, which on section showed a normal capsule, but a very dark and congested pulp, with numerous small tubercles throughout and too regular to be tuberculous.

At the coroner's inquest all the foregoing facts were brought out, and the jury, made up entirely of physicians, rendered the following verdict: "We find that the death of J——— C——— was due to cardiac paralysis following chloroform anæsthesia, occurring in a subject having a diseased condition not determinable before death, and inasmuch as every possible precaution was taken, we hereby exonerate the physicians and hospital from all responsibility for such death."

The above case is particularly interesting, in that it presents a thorough investigation of a death from chloroform, such records being rare. At the time of death status lymphaticus was suggested as a possible cause, and it is interesting to note that literature upon this subject presents conditions closely allied to the autopsy findings of this case, the present definition of status lymphaticus, as taken from Wood's *Reference Handbook*, being: "A so called constitutional disorder characterized by a persistence or hyperplasia of the thymus, and by general lymphadenoid hyperplasia, frequently associated with cardiac and arterial hypoplasia and the osseous evidences of rhachitis."

S. R. SMITH INFIRMARY, NEW BRIGHTON, S. I.

Therapeutical Notes.

Cucurbita Pepo as a Tæniafuge.—According to *Journal de médecine de Paris*, for July 31, 1904, Romer has been experimenting with the popular tapeworm remedy, pumpkin seed, with satisfactory results. He recommends that 60 to 70 grammes (2 to $2^1/_3$ ounces) be mixed with an equal quantity of cacao, freed from fat, sugar, and water, to make a paste, which should be divided into 15 or 20 lozenges. After a 24 hours' fast and a dose of castor oil, the patient should take a lozenge every ten minutes. Half this dose will be enough for a child. Romer advises shelling the seeds before use, and states that in 100 cases he has had uniformly good results without any unpleasant effects.

Simple Treatment of Gout.—According to *Journal de médecine de Paris*, for June 19, 1904, Falkenstein recently communicated to a Berlin medical society his view that gout was due mainly to gastric hypochlorhydria, and his experience that remarkable results were obtainable from the use of hydrochloric acid. Ten or fifteen drops of the acid should be taken in a glass or two of unsweetened water at meal times. Falkenstein suffered from gout for over twenty years, but, after beginning the acid treatment, he has never had an attack, although he occasionally permits himself a rich and indigestible meal.

Aborting Acute Coryza.—*Presse médicale*, for June 11, 1904, correcting an error in a former issue, gives the following formula:

℞	Boric acid	20 grammes ($^2/_3$ ounce);
	Salol	5 grammes (75 grains);
	Menthol	20 centigrammes (3 grains);
	Cocaine hydrochloride	25 centigrammes (3¾ grains).

M. For a snuff.

Treatment of Nocturnal Incontinence of Urine.—*Journal de médecine de Paris*, for July 31, 1904, gives Jaboulay's treatment, which consists in injecting artificial serum into the ischiorectal region, a simple procedure and absolutely harmless. The patient is placed in the knee chest position and the needle pierces the skin over the end of the coccyx, guided by a finger in the rectum. When the needle point, having avoided the intestine, is in the hollow of the sacrum, about three ounces of serum are injected. This is repeated on the following day and two, four, or ten days later, if required.

The same treatment has proved efficacious in obstinate sciatica and also in cystitis.

Jaboulay, noticing the importance of the hypogastric plexus in bladder troubles, has ventured to call the plexus the pelvic brain.

An Ointment for Hæmorrhoids, which finds some favor in the hospitals of the Department of Charities of New York, contains the following ingredients:

℞	Morphine oleate (10 per cent.)	1 part;
	Camphor	2 parts;
	Oil of sassafras	4 parts;
	Resin	8 parts;
	Yellow wax	16 parts;
	Benzoated lard	24 parts.

M. To be applied on lint.

The foregoing is best compounded by melting the wax, resin, and benzoated lard together at a gentle heat, and digesting the camphor in this until it is dissolved. While the mass is cooling, and before it solidifies, add the morphine oleate and the sassafras oil, and mix thoroughly.

Antidiarrhœa Mixture.—A formula, which in certain cases is much used in the Kings County (N. Y.) hospitals, has the following composition:

℞	Morphine acetate	1 grain;
	Lead acetate	12 grains;
	Camphor water	2 fluid ounces.

M. Dose: One teaspoonful.

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CONTEMPORARY AMERICAN WORKS ON OBSTETRICS.

In the August number of the *Scottish Medical and Surgical Journal* we find an article entitled Transatlantic Obstetrics; a Critical Review of American Textbooks, by William Stephenson, M. D., F. R. C. S. E., professor of midwifery in the University of Aberdeen. The books which the author specifies are Norris and Dickinson's *American Textbook of Obstetrics,* Jewett's variorum *Practice of Obstetrics,* Hirst's *Textbook of Obstetrics,* Dorland's *Modern Obstetrics,* Edgar's *Practice of Obstetrics,* Williams's *Obstetrics,* and Webster's *Textbook of Obstetrics.* All these, it is hardly necessary to say, are books that are held in high esteem in the United States, but our Scotch reviewer can find in them but little to approve of, though he is good enough to say, after much adverse criticism: "There are, however, valuable features in these works, but they belong in style more to the special treatise or the encyclopædia than the textbook. They are storehouses of past and present obstetric work and opinion, useful to the scientific student, especially when full references to the original papers are given." He had already said: "It is evident that the writers overlook the differences between the facilities of maternity institutions and the exigencies of general practice. They write as specialists whose experience has been gained in hospitals, and [who] have never known the high time pressure under which the busy practitioner works single-handed. Till teachers simplify their methods, become more practically sensible, and less finical and impossible, their writing will be in vain." Would he, then, feed students and general practitioners on predigested food? It seems to us well to lead the students and practitioners to do the digesting for themselves; such a course must surely make them men of broader attainments, more resourceful, and much better qualified to add to the common stock of knowledge.

As regards the other criticisms put forward by Dr. Stephenson, they concern a few questions of practice, a point in anatomy, and some of the lesser features of book-making, especially pictorial illustration. In the practical points, he thinks that elaborate asepticism is carried too far, that digital examinations are too absolutely interdicted, and that the occasional advantage of rupturing the membranes is overlooked. On all these points we think he is correct. As to the anatomical point, speaking of one of Webster's figures, he says: "The axis of the brim, prolonged, passes through the coccyx; here it would pass far in front of it." We have not Webster's book at hand, so we cannot say how far wrong he is, if at all; our impression is, however, that the projected axis passes close to the tip of the coccyx, not much in front of it and not far behind it. As to pictures, we readily concede that many of those published nowadays are trivial and unnecessary; we do not need to be shown what a package of lint or of gauze looks like. Concerning the relative merits of the schematic drawing and the realistic view, which latter Dr. Stephenson appears to condemn almost absolutely, each has its proper sphere, we think, and neither should be relied on alone for teaching purposes. In the art of bandaging, for example, the modern reproductions of photographs show the student what he actually can train himself to do, while the old line drawings made him rage because he found himself unable to accomplish what was really impossible.

THE BACILLUS AUREUS FŒTIDUS.

This is the name given by Dr. Maximilian Herzog, the pathologist of the government biological laboratory in Manila, to a chromogenic and malodorous microorganism found by him in the dead body of a Filipino and supposed to have been the cause of death. Many of the individual organisms were diplobacilli, and some of them were so short as to look like diplococci. They remotely resemble the pseudodiphtheria bacilli, also those of the plague. Cultivated on any solid medium, they produce an intense golden yellow pigment practically identical in color with that formed by *Staphylococcus pyogenes aureus.* All cultures, whether aerobic or anaerobic, have a very fœtid (cheesy and somewhat cadaveric) odor. Exposure for ten minutes to a temperature of 143.6° F. kills all the bacilli.

Little was known of the dead Filipino's last illness. The body had been sent for examination under the conjecture that the man might have died of the plague, but both this and iodoform poisoning (from copious applications of that drug to an ulcer on the leg) were excluded. The health inspector from whose district the body was sent had never seen the man alive, but learned that he had been out of health for about four months. The inguinal glands of the right side, the same side with the ulcer of the leg, were decidedly enlarged, and the ulcer itself looked as if its surface had recently been curetted and its edges trimmed. The further post mortem findings were as follows: Passive congestion of the kidneys and liver, interstitial and parenchymatous nephritis, acute interstitial hepatitis, brown atrophy and fatty degeneration of the myocardium, and slight enlargement and congestion of the cervical glands.

Two monkeys were inoculated by intraperitoneal injection, also a half-grown wild gray rat, without result. While Dr. Herzog believes that the *Bacillus aureus fœtidus* was the cause of the Filipino's death, he thinks that that organism does not readily become parasitic and is rarely pathogenic in a high degree.

THE THYREOID TREATMENT OF PUERPERAL CONVULSIONS.

Lieutenant-Colonel A. J. Sturmer, of the British Indian Medical Service (*Transactions of the Obstetrical Society of London,* xlvi, 2), reports upon forty-one cases of puerperal convulsions in the treatment of which thyreoid extract was used. Only five of the women died, and this low rate of mortality he seems to impute in great measure to the thyreoid medication. Inasmuch as morphine appears to have been employed in every case but one, as a saline solution was injected in nineteen, and as labor was brought on or instrumentally accelerated in twenty-eight, it is not strikingly evident that the good results were mainly due to the peculiar effect of the thyreoid treatment.

Colonel Sturmer says that the treatment of puerperal convulsions with thyreoid extract was made known to him in an article by Dr. H. O. Nicholson, published in the *Journal of Obstetrics and Gynæcology of the British Empire* for July, 1902. He seems to attribute its efficiency largely to its diuretic action, and he questions if it is appropriate in all cases, "for," he says, "it seems hardly likely that a patient who passes large quantities of urine which contain no albumin can be suffering from the same type of disorder as the patient who passes only a few ounces, black with blood and loaded with albumin." The diverse pathogeny of the convulsions he further hints at in the following statement: "The type of convulsion also varies very considerably; one patient may have only one or two fits; she then becomes comatose and never regains consciousness, and dies; whereas another may have forty and become conscious after each, and recover without a bad symptom." "A great deal," he adds, "has yet to be learned about this disorder," and that is certainly true.

In the present state of opinion as to the causation of puerperal eclampsia we can hardly credit any one measure or any one medicinal action with a preponderating influence in subduing it. Even if thyreoid medication comes to be recognized as powerfully remedial, it seems to us unlikely that its efficiency will be thought mainly dependent on its action in increasing the renal secretion. But, as we have already intimated, we can draw little in the way of definite conclusions from Colonel Sturmer's cases.

URÆMIC ULCER OF THE DUODENUM.

The gastrointestinal form of uræmia is well known, the patient above all presenting, among other important clinical manifestations, vomiting and diarrhœa, and to-day it is very generally admitted that the gastrointestinal canal plays the part of a vicarious emunctory; the kidneys have ceased to eliminate and the intestine takes their place. A most interesting fact in the ensemble of these gastrointestinal manifestations of uræmia is that the duodenum is frequently the seat of true ulcerations. These uræmic duodenal ulcers have been until recently considered as rare, but in a very complete paper on the subject, published in the *Revue de médecine* for November and December, 1903, by Devic and Chauret, it is shown that, contrary to the general belief, this pathological process is frequent, since in a relatively short space of time these observers met with twelve cases.

Ulceration of the duodenum must, however, be looked for, because perforation occurs only exceptionally, and the same may be said of hæmorrhage; consequently, there being no clinical symptom, it must be searched for post mortem.

Uræmic duodenitis may take on several modalities, which are without doubt only different degrees of the same lesion, the simplest being a number of foci of submucous hæmorrhages. The structures of the duodenum are intact, the blood only infiltrating them in certain spots. In other instances the mucosa is ulcerated irregularly, and then the duodenum retains only its submucous and muscular layers—in other words, one is dealing with an ulceratio simplex. The borders of the ulcer are never callous, and no pathological change is to be noted in the neighboring glands.

In very rare instances perforation takes place, and one will find minute, clean cut orifices at the bottom of the ulcer. A curious fact in uræmic inflammation of the duodenum is that the favorite seat of the ulcer is in the first portion of the organ, and it has been pointed out by Letulle that when the duodenum is the seat of several ulcers they are always to be found in its first portion.

Lecointe, in his thesis *Duodénite ulcéreuse urémique,* published last year, endeavors to explain why the ulcerative process occurs at this particular spot. He believes that the vicarious eliminations take place in the duodenum, eliminations which are toxic to the mucosa by which they make their exit, and, since the duodenal elimination is most active in the first portion, it naturally follows that this part will be more decidedly affected.

The symptomatology of uræmic ulcer of the duodenum is both obscure and little known. In rare instances the ulcer suddenly manifests its presence by the occurrence of perforation, giving rise to all the classic signs of perforative peritonitis. It is almost needless to say that there is nothing which clinically can indicate whether the lesion is in the duodenum or in the stomach.

In other cases hæmorrhage arises, but hæmatemesis is unusual, because the blood is held back by the pylorus. Whether or not melæna should lead one to suspect an ulcer of the duodenum in cases of Bright's disease is merely an hypothesis, but it is not the only one, for in 1901 Souques demonstrated before the Société médicale des hôpitaux that in uræmic subjects there existed a generalized congestive condition of the intestine which could give rise to hæmorrhage without necessarily the presence of ulcerations, and still less of those of the duodenum.

It should also not be forgotten that cirrhosis of the liver is a common cause of gastrointestinal hæmorrhage, and that this hepatic lesion frequently passes by unobserved during the progress of Bright's disease. When no intestinal hæmorrhage occurs to cause one to suspect an ulcer of the duodenum, there is usually no other symptom present which will point to this complication. No reliance should be placed on epigastric pain or on vomiting, and it is for this reason that uræmic duodenal ulcer, this curious lesion which in so many ways recalls intestinal ulcerations from burns, hepatic insufficiency, etc., usually passes by unnoticed. As it remains localized and gives rise to no clinical symptom, its supposed infrequency can be explained.

Charles Greene Cumston.

SOME CONJECTURES ABOUT THE VERMIFORM APPENDIX.

Few topics of late have been discussed as much as that of appendicular disease. Its causes and its treatment have been talked and written about almost *ad nauseam,* yet now and then something new is being brought out and its ultimate results can still furnish food for thought. The evolutionists have been predicting that the human race would finally become minus the vermiform appendix, owing to the increasing frequency with which this appendage is being removed. This conclusion is at least debatable, as it is doubtful if acquired or accidental deformities can be inherited. At any rate, granting that this may occur, it is easy to surmise that there probably will be a very interesting intermediate period.

It is pretty generally admitted that appendicular inflammation is due to infection. This infection is probably the result of excessive meat eating, especially in conjunction with sedentary habits and living under high mental pressure, all this leading to chronic constipation and a lack of intestinal elimination. But in addition to the exciting cause we have to figure on a necessary predisposition. All those who swallow typhoid germs do not get typhoid fever—the element of resistance comes in—it is the power or the lack of resistance which is apt to be inherited. Now, the greater the number of susceptible persons who are saved by means of skilful surgical operations, the larger the proportion of beings predisposed to appendicular inflammation who will be born, their children and their children's children. Hence the more expert the surgeons become, the more material will be forthcoming, and it will not be long before we shall have become a race extraordinarily liable to the disease.

In that manner will come about the interregnum. Everybody will then have disease of the appendix. It will be expected as a matter of course, as measles and whooping cough are today. The fond mother will feel relieved when all her children have been operated upon for it. Nay, perhaps one of the questions of that time will be as to what age is the most favorable for a preventive, or anticipatory, excision of the appendix! Surgeons will reap a rich harvest and they all will have to become very proficient in the technics of the operation, or, what is more probable, many will have to become specialists in this line and limit their work to removal of the appendix. Perhaps after this has gone on long enough the man without an appendix will be evolved.

Only two things can intervene to change this programme, and disappoint future generations of operators. One is so simple that it is not very likely to come to pass; it is a radical change of habits among civilized people, the living more in the open air, taking more exercise, eating less meat, doing less worrying. The other is the discovery of a curative antitoxine or, still better, a preventive serum. The manufacturer and the medical man would in the last case profit, to the detriment of the surgeon, but the race's final riddance from the appendix would probably be delayed.

CHARLES CHASSAIGNAC.

THE EXPLANATION OF SOME MARVELOUS CURES.

The sale of certain proprietary medicines has been enormous and inexplicable save through their extraordinary testimonials, some of which must have puzzled even physicians whose attention may have been drawn to them. An explanation is now forthcoming through an associated press communication, which we transcribe:

> Remarkable testimony has been obtained by the post office department as to the ways in which testimonials are obtained by some of the big concerns engaged in this business. One large firm admitted that it had agents out seeking persons who had formerly occupied prominent positions in the community, but had suffered financial reverses and were harassed by debts they were unable to settle. The agents would obtain possession of the unpaid accounts, and would then apply pressure to the unfortunate victims, demanding immediate payment in full. Finally, after long persecution, the desperate victim would be invited or commanded to call at the office of an attorney, where he would be given to understand that if he would sign and swear to a testimonial a receipt in full for the claims against him would be given. This seems incredible, but the facts are now on file in the records of the post office.

It is hard to believe in such villainy. It is abominable that the article from which we make the foregoing quotation is headed "Methods of Medical Men."

ANOTHER EXAMPLE OF THE "HARMLESS" LUNATIC.

At a recent meeting of the Central Society of Medicine of the North (*Nord médical,* August 1st) M. Raviart reported that during a visit to the asylum of Armentières he had been struck on the head with a wooden shoe by a general paretic who had been deemed harmless. Evidently, as the report suggests, we must be on our guard against general paretics even when they seem to be inoffensive.

SMALLPOX IN RIO DE JANEIRO.

One hundred and eleven deaths from smallpox in a single week would be a large number for a city of the first magnitude; how much larger, therefore, for a city calculated to contain 850,000 inhabitants. The mortality mentioned is that given officially for the week ending July 17th. The number of smallpox deaths since the beginning of the year is reported as 1,294. In round numbers, those for the week mentioned are sixty-five in excess of the weekly average for the year.

News Items.

Society Meetings for the Coming Week:

Wednesday, *August 31st.*—Auburn, N. Y., City Medical Association; Berkshire, Mass., District Medical Society (Pittsfield).

Thursday, *September 1st.*—New York Academy of Medicine; Brooklyn Surgical Society; Society of Physicians of the Village of Canandaigua, N. Y.; Obstetrical Society of Philadelphia; Medical Society of the City Hospital Alumni, St. Louis; Atlanta Society of Medicine.

Friday, *September 2nd.*—Practitioners' Society of New York; Clinical Society of the New York Postgraduate Medical School and Hospital; Baltimore Clinical Society; the Manhattan Clinical Society.

Saturday, *September 3rd.*—Manhattan Medical and Surgical Society, New York (private); Miller's River, Mass., Medical Society.

NEW YORK.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending August 20, 1904:

	Week end'g Aug. 13.		Week end'g Aug. 20.	
	CASES.	DEATHS.	CASES.	DEATHS.
Measles	95	8	73	7
Diphtheria and croup	211	23	224	26
Scarlet fever	50	2	54	5
Smallpox	..	1	..	..
Chickenpox	9	..	18	..
Tuberculosis	328	153	420	130
Typhoid fever	86	18	120	20
Cerebrospinal meningitis	..	24	..	24
Totals	779	229	909	212

Bequest to Yonkers Hospital.—St. John's Riverside Hospital at Yonkers is a beneficiary to the extent of $5,000 by the will of Cornelia A. De Wint, of this city, probated lately. Two sisters, Elizabeth and Adele De Wint, get the bulk of the estate.

Dr. Amelia Wilkes Lines, who recently celebrated her eightieth birthday, is the oldest practising woman doctor in the world. She was the first woman to receive a diploma in the State of New York and has practised in New York city since 1854.

PHILADELPHIA.

Deaths.—Dr. George T. Heston, a graduate of the University of Pennsylvania, died Monday, August 15th, at Newtown, Pa. Dr. Heston made a trip around the world, after his graduation, as surgeon of the bark *Adelaide*.

Dr. Isaac Detwiler died at Manheim, Pa., on August 15th. Dr. Detwiler was a prominent physician of Lancaster county and a member of the Pennsylvania State Medical Society.

Typhoid Fever at Westchester.—The board of health of Westchester reports twenty-four cases of typhoid fever, of which seventeen are in the hospital. The water supply has been examined and found to be in a satisfactory condition. The newspapers, eager for occasion to alarm their readers, have been making more of a moderate increase in the number of cases of typhoid than the facts warrant.

Pow-Wow Doctor Discovered.—During an investigation into the cause of the death of a child aged four months, Coroner Dugan discovered that the infant had been treated by a "pow-wow" doctor. The treatment consisted of rubbing the child with the dirt side of a piece of sod and subsequently with the grass side. The child's clothes were then to be shaken out of the window and never used again, and the child was to be kept out of doors all day. The "doctor" is a blacksmith by trade, and alleges that he was taught by his mother how to cure disease. There is no law in Pennsylvania which will reach the case. There should be such a law. Twentieth century and pow-wow doctors!

GENERAL.

Statement of Mortality in Chicago, Ill., for the Week Ending August 20, 1904, compared with the preceding week and with the corresponding week of 1903. Death rates computed on United States Census Bureau's estimated midyear populations of 1,932,315 for 1904 and of 1,873,880 for 1903:

	Aug. 20, 1904.	Aug. 13, 1904.	Aug. 22, 1903.
Total deaths, all causes	437	496	483
Annual death rate per 1,000	11.82	13.41	13.44
By sexes—			
Males	254	279	291
Females	183	217	192
By ages—			
Under 1 year	122	136	145
Between 1 and 5 years	33	42	46
Over 60 years	91	84	65
Important causes of death—			
Acute intestinal diseases	108	111	106
Apoplexy	10	6	8
Bright's disease	29	29	22
Bronchitis	6	4	18
Consumption	59	56	68
Cancer	26	22	19
Convulsions	12	9	8
Diphtheria	5	1	3
Heart diseases	22	41	32
Measles	..	1	2
Nervous diseases	11	16	27
Pneumonia	25	20	25
Scarlet fever	..	3	2
Suicide	7	12	1
Typhoid fever	4	8	17
Violence (other than suicide)	27	52	32
Whooping cough	7	4	1
All other causes	79	100	92

Children's Memorial Hospital of Montreal, Can.—A strong appeal is being made for funds to carry on the work of this worthy charity, and children are especially urged to help in the bazar soon to be held for its benefit.

Appointment to Second Regiment of New Jersey.—Dr. William J. Condon, a physician of New Brunswick, N. J., has been appointed a hospital steward on the staff of the Second Regiment by Colonel D. F. Collins, of Elizabeth.

The Connecticut State Board of Health, in its monthly bulletin for July, reports cases of infectious disease as follows: Measles, 103 cases; scarlet fever, 65; cerebrospinal fever, 5; diphtheria, 63; whooping cough, 31; typhoid fever, 61; tuberculosis, 27.

New Hospital for Elizabeth, N. J.—A beautiful new hospital for women will be erected soon by the Catholic diocese of New Jersey. Bishop O'Connor recently purchased property at Elizabeth which was the home of the Mexican naval commission during its stay there. The building will be altered to meet the requirements of a hospital, and will be in charge of the Sisters of Charity of St. Michael's Hospital, Newark.

Appointment of Chief Nurse at Wyoming State Institution.—Miss Matilda Grace Roberts, of Sheridan, Wyo., has been appointed chief nurse and instructor at the Wyoming General Hospital and Nurses' Training School at Rock Springs. This institution is maintained by the State of Wyoming.

Protest Against Tuberculosis Sanitarium at Binghamton, N. Y.—A protest, signed by seventy-two citizens of Binghamton, has been presented to the common council and board of health protesting against the establishment of a sanitarium and camp for consumptives on Mount Prospect, near that city.

The Union of Old German Students in America will entertain the German scientists who attend the St. Louis congress of art and sciences, at a "Commers" in Arion Hall on October 8th, at 8.30 p. m. Most of the eminent guests are medical men. For further particulars address Dr. A. Ripperger, secretary, 50 West One Hundred and Thirtieth Street, New York city.

Cecil County, Md., Medical Society.—Following out a plan outlined by the State Medical Society, the members of the Cecil County Medical Society met at Elkton on August 11th and reorganized the local association on the new plan. Dr. George M. Stump, of Perryville, was elected president; Dr. John H. Jamar, of Elkton, vice-president; Dr. Howard Bratton, of Elkton, secretary and treasurer.

Millville, N. J., Oysters Healthy.—The order of the State Board of Health to the Board of Health of Commercial township to examine the oyster beds, and ascertain whether or not any trace of sewage water may be found, is now being carried out, and nothing harmful in the way of bacilli has been discovered. The planters, who have spent thousands of dollars in placing the oysters this season, are jubilant over the fact that they are safe.

The Medical Department of the University of Louisville, Ky., has graduated the following:

Will D. Asbury, of Indiana; William Franklin Byler, of Missouri; Thomas Henderson Cobble, of Texas; Noah Dick Colvin, of Kentucky; Lee James Ernstberger, of Kentucky; Amos Rule Garrison, of Tennessee; Robert Lee Hardy, of Kentucky; Charles Augustus Haefner, Ph. G., M. D. LL. D., of Ohio; Mary T. Jackson, of Pennsylvania; Oscar Charles Klass, of Missouri; Edward D. Mudd, of Kentucky; Claude Meek Poff, B. S., of Texas; James Tressaillian Padget, M. D., of Kansas; Troilus Melcoy Radcliffe, of Kentucky; Oral S. Robuck, B. S., of Ohio; Lewis Ryans, of Kentucky; Lew G. Wallace, A. M., of Kentucky; Frank Alonzo White, of Texas.

University of California to Have Medical Department.—At the meeting of the regents of the University of California, held August 9th, at the Mark Hopkins Institute of Art, San Francisco, the recommendation of the finance committee, that the medical department, forming part of the affiliated colleges, be taken directly under the supervision of the regents and that a committee be appointed by President Wheeler to report on this department's financial condition, was the occasion of a spirited discussion and a research into history. Regents McEnerney, Reinstein, Dohrmann, and Wheeler spoke on the indeterminate position this department had always occupied, differing from the others by reason of being self sustaining. The motion to postpone action was lost and the recommendation accepted.

Mortality of Michigan During July, 1904.—The total number of deaths returned to the Department of State for July was 2,510, or 65 more than the number registered for June. The number was 143 less than the number recorded for July, 1903. By ages, there were 520 deaths, or 20.7 per cent. of infants under 1 year; 143 deaths of children aged 1 to 4 years, and 720 deaths of persons aged 65 years and over. Important causes of death were as follows; in reverse order of their numerical importance: influenza, 4; measles, 8; scarlet fever and whooping cough, 10 each; puerperal septicæmia, 19; diphtheria and croup, 24; typhoid fever, 28; meningitis, 36; pneumonia, 69; cancer, 156; diarrhœa, enteritis, under 2 years, 206; tuberculosis, 211, including 166 deaths from tuberculosis of the lungs and 45 from other forms of tuberculosis; accidents and violence, 226. There were only 5 deaths reported from tetanus, a number much smaller than that for the corresponding month of 1903. No cause for the tetanus was assigned, except in one instance, when a toy pistol was stated to have inflicted the wound that caused death. There were 4 deaths from smallpox, 1 in Warner township, Antrim county; 2 in the city of Jackson; and 1 in the city of St. Ignace.

Unusually Satisfactory Health Record in Chicago.—No such healthful summer appears of record in the history of Chicago as this of 1904. The average August death rate of the last decade was 16.84 per thousand of population, and the lowest during that period was 14.53 in 1901. For the twenty elapsed days of the current month the rate has been 12.67 and for the week ended August 20th the 437 deaths reported represent an annual rate of only 11.62. These figures show a reduction of 20 per cent. from the previous lowest rate, and of 31 per cent. from the previous August average. As noted so often before that the health department may be justly twitted with "still harping on my daughter," this decrease is due almost if not entirely to the steadily increasing reduction of infant and child mortality. Since the first of the month there have been 506 deaths under five years reported; during the corresponding twenty days last year there were 580 such deaths reported—a decrease this year of 12.7 per cent. There were only 155 such deaths reported for the week—191 for the corresponding week of 1903, a decrease of 18.8 per cent. Lower and fairly equable temperature, an improving milk supply and absolutely pure water are the principal factors contributing to this result.

Licensed to Practise in the District of Columbia.—The health office has announced that the following named physicians, having passed the necessary examination, have been licensed to practise medicine and surgery in the District of Columbia: Dr. Homer G. Fuller, Dr. Caryl Bur-

bank, Dr. Edward Snowden, Dr. Frederick E. Montgomery, Dr. Andrew J. McIntyre, Dr. Milton H. Prosperi, Dr. John S. Jamieson, Dr. Carl Lovelace, Dr. John W. Sutherin, Dr. Harry M. Price, Dr. Frederick W. Didier, Dr. James F. Hilton, Dr. Joseph W. Halford, Dr. John A. Holmes, Dr. Robert C. Ruedy, Dr. Adolph Monroe, Dr. Louis H. Hanson, Dr. Ralph A. Hamilton, Dr. Herbert E. Martyn, Dr. Montgomery E. Higgins, Dr. William H. Hough, Dr. Joseph E. Mitchell, Dr. Francis E. Harrington, Dr. June M. Hull, Dr. Albert Allemann, Dr. Grant S. Barnhart, Dr. H. Hyland Kerr, Dr. Laurence M. Hynson, Dr. Willard P. Greene, Dr. Carlisle P. Knight, Dr. William G. Young, Dr. William C. McNeill, Dr. Mahlon Ashford, Dr. Hugh A. Brown, Dr. Taylor E. Darby, Dr. Buckner M. Randolph, Dr. Emma M. C. Starr, Dr. H. Noble Crandall, Dr. Gregg Custis Birdsall, Dr. Huron W. Lawson, Dr. De Haven Sharp, Dr. William E. Manville. Those licensed to practise in the District of Columbia, by virtue of registration at the health department prior to the enactment of the law now in force, are: Dr. Harry V. Dresbach and Dr. Lorin W. Reid. Midwives who have passed the necessary examination and have been licensed to practise midwifery in this District, are: Dr. Elizabeth Hall and Dr. Mary L. Fanchon.

The Faculty of Albany Medical College.—The Albany Medical College has for the year 1904-5 added a number of new members to the faculty. Among these is Dr. Richard Mills Pearse, professor of pathology and bacteriology, who has been appointed to succeed Dr. George Blumer, lately in charge of the Bender Laboratory. The trustees have made a change also in the status of the clinical professors, who rank now next to the professors. Among the new clinical professors is Dr. Harry Judson Lipes, who has been appointed to the department of obstetrics. Dr. Spencer Lyman Dawes has been appointed adjunct professor of materia medica. Among the lecturers are Dr. Wilfred Silvester Hale, who will act as demonstrator of anatomy and assistant curator of the museum. Dr. Edwin McDonald Stanton has been appointed lecturer in histology.

Among the new instructors are: Dr. Howard Eaton Lomax, who will give instruction in anatomy; Dr. Charles Knickerbocker Winne, Jr., who will instruct in bacteriology; Dr. George Gustave Lempe, who will give instruction in anatomy; Dr. Donald Boyd will act as demonstrator in anatomy of the nervous system and assistant in normal histology; Dr. Edwin Forrest Sibley has been appointed instructor in clinical microscopy; and Dr. Silas Lorenzo Filkins prosector of anatomy.

Proposed Library for Cooper Medical College, California.—A petition for the sale of real estate filed in the Superior Court on August 20th discloses the fact that the Cooper Medical College contemplates the erection of an immense library on its campus. A resolution passed recently by the directors of the institution provides for the sale of valuable property with this end in view. The land which is to be sold was bequeathed to the college by Mrs. Pauline Lane, and its excellent value presupposes the erection of a library building second to none in this city and well stocked with medical literature. Three of the pieces of property are in the western addition, while the fourth is on the water front. A meeting of the directors held August 8th, and presided over by Dr. C. W. Ellingwood, president of the institution, passed a resolution authorizing the sale of the real estate and directing that the proper legal steps be taken for its consummation. Plans for the building of the library are yet vague, as the directors feel that they prefer to have the money in hand before they proceed with the affair. Every effort will be made, however, to make the library one of the best on the Pacific Coast. The valuable property which is to be disposed of, probably at a private sale, is situated at Clay and Buchanan Streets, Washington and Buchanan Streets, Broadway and Scott Street, and Folsom and Main Street, San Francisco.

The American Röntgen Ray Society.—Fifth annual meeting to be held September 9, 10, 12, and 13, 1904, at the Louisiana Building, St. Louis, Mo. Preliminary programme subject to changes and alterations:

President's Address: Comparison of X Ray and Surgical Treatment of Tuberculosis, by Dr. James B. Bullitt, of Louisville, Ky.; The X Ray in Tuberculosis and Malignant Diseases, by Dr. J. D. Gibson, of Denver, Colo.; The X Ray in the Treatment of Pulmonary Tuberculosis, by Dr. Emil Grube, of Chicago, Ill.; The Röntgen Ray in the Treatment of Tuberculosis, by Dr. J. Rudis-Jicinsky, of Chicago, Ill.; The X Ray in Tuberculous Adenitis, by Dr. May Cushman Rice, of Chicago, Ill.; The Treatment of Epithelioma, by Dr. George Johnston, of Pittsburgh, Pa.; Carcinoma of the Breast, by Dr. Charles L. Leonard, of Philadelphia, Pa.; Variations of Radiotherapeutic Technics by Dr. Russell H. Boggs, of Pittsburgh, Pa.; Radiotherapeutic Nihilism, by Dr. Gordon Burdick, of Chicago, Ill.; The X Ray Treatment of Sarcoma, by Dr. J. F. Smith, of Chicago, Ill.; The Results of Treatment of Carcinoma, by Dr. J. N. Scott, of Kansas City, Mo.; Two Blunders and Their Lessons, by Dr. Walter W. Johnston, of Rochester, N. Y.; Reports on other cases (time limited to ten minutes), by Dr. Johnston, Dr. Leonard, Dr. Smith, Dr. Scott, Dr. Burdick, Dr. Boggs, Dr. Johnson, Dr. Dunham, Dr. Morton, Dr. Kassabian, Dr. Pfhaler, and others; general discussion by members; discussion closed by readers of papers; An Improved Wehnelt Interrupter, by Dr. Henry Hulst, of Grand Rapids, Mich.; The Interpretation of Chest Negatives, by Dr. P. M. Hickey, of Detroit, Mich.; The X Ray in Injuries Near the Wrist, by Dr. Martin Wilbert, of Philadelphia, Pa.; The Value of Stereoscopic Skiagraphy with Practical Demonstrations of the Process and Technics, by Dr. Mihran Kassabian, of Philadelphia, Pa.; The Static Machine and Radiograph, by Dr. John T. Pitkin, of Buffalo, N. Y.; Diagnosis of Brain Tumors and Softening, by Dr. George E. Pfhaler, of Philadelphia, Pa.; Plate Development, by Dr. F. W. L. Peebles, of St. Louis, Mo.

The Fourth Panamerican Medical Congress, which was to have convened the latter part of December of this year at Panama, has been postponed until the first week in January. This was done at the request of many physicians who proposed to attend it, as they desired to be at home with their families during the Christmas holidays. The delegates from this side of the continent will therefore leave on Tuesday, December 27th, if they go from New York by the regular Pacific mail lines, or at other dates if they go by way of New Orleans or Jamaica. The dates of sailing from the Pacific Coast have not yet been ascertained. The congress will be held from January

4th to 7th. The officers of the congress, appointed by President Amador, of the Republic of Panama, are: Dr. Julio Icaza, Dr. Ciro Uriola, Dr. J. Calve, Dr. Carlos Cooks, Panamanians; Dr. Gorgas, chief of the Panama Canal Sanitary Commission; Dr. Carter and Dr. Ross, Americans; Dr. Manuel Corales, Cuban; Dr. M. Stern, English; and Dr. Oduber, Dutch. This congress bids fair to be the most successful Panamerican Medical Congress that has ever been held, on account of the central situation of Panama and its easy approach from both sides of North America, Mexico, and the Central American Republics, as well as from the countries on the north and west sides of South America. There will be but four sections at this congress—Surgery, Medicine, Hygiene, and the Specialties.

The Trustees of the Newport, R. I., Hospital, in cooperation with the pastors of the churches, have issued the following circular to the public:

> The trustees of the Newport Hospital and the pastors of the churches after a conference concerning the needs of the hospital, appeal to the Christian people of this city to cooperate for the maintenance of the hospital work. We submit the following facts for your consideration:
>
> 1. The annual income from all sources for the current expense of the hospital is about $26,000. There is little prospect that this may be increased by any considerable amount.
>
> 2. Sixty-nine per cent. of the patients in the hospital (last year 410 individuals) pay absolutely nothing for their board or treatment.
>
> 3. The average cost for the treatment of one patient for one week is $10.50; and the estimated income is by no means adequate to meet this cost.
>
> 4. On account of this the hospital has been, for several years, running behind. The deficit for last year in the current expense account was $10,638. To guard against the recurrence of such a deficit this year the hospital has been compelled to close the Ledyard Ward.
>
> In view of these facts we earnestly request of you some gift to enable the management to continue the beneficent work. We suggest that you may contribute in one of three ways:
>
> 1. On Sunday, August 14th, an offering will be taken in your church for the work of the hospital. You may place your contribution in the plate at the time of the offering, or if this be inconvenient, you may sign the white card specifying the amount you can give and the date when the treasurer of the hospital may expect to receive it.
>
> 2. You may become a guarantor of the hospital by signing the blue card and agreeing to pay one or more shares of the deficiency fund; it being agreed that no share shall be larger than $7.50.
>
> 3. You may sign the yellow card and so assume the cost, $10.50, of treating one free patient for one week.

Mississippi Valley Medical Association.—At the meeting of this association to be held at Cincinnati, on October 11, 12, and 13, 1904, the following will be the programme:

Address of the President, by Dr. Hugh T. Patrick; Address in Medicine, by Dr. C. Travis Drennen, of Hot Springs, Ark.; Address in Surgery, by Dr. W. J. Mayo, of Rochester, Minn.; Spleenless Men: Report of Two Successful Cases of Splenectomy, by Dr. J. H. Carstens, of Detroit; Reflection Upon the Origin of Hallucinations of Sight and Hearing, by Dr. Charles J. Aldrich, of Cleveland, Ohio; Prevention of Conception and the Evils Thereof, by Dr. William F. Barclay, of Pittsburgh, Pa.; Relative Dangers of Craniotomy and Cæsarean Section, by Dr. James M. Barnhill, of Columbus, Ohio; Treatment of Diabetes Mellitus, by Dr. R. Alexander Bate, of Louisville, Ky.; Prognosis, by Dr. John M. Batten, of Downington, Pa.; Foreign Bodies in the Œsophagus, by Dr. Carl E. Black, of Jacksonville, Ill.; Acute Anterior Poliomyelitis, by Dr. Sanger Brown, of Chicago; A Case of Bilateral Tic Doloureux Treated by Intra and Extracranial Neurectomy, by Dr. W. O. Bullock, of Lexington, Ky.; Pathological Changes Resulting from Prostatic Enlargement, by Dr. Charles E. Burnett, of Fort Wayne, Ind.; Treatment of Tuberculous Pleuritis, by Dr. James G. Burroughs, of Asheville, N. C.; Pseudomembranous Croup, by Dr. Robert E. Carlton, of Latonia, Ky.; Cranial Injuries, by Dr. Shelby C. Carson, of Greensboro, Ala.; Echinacea, by Dr. C. S. Chamberlin, of Cincinnati, Ohio; The Value of the X Ray to the General Practitioner, by Dr. James E. Coleman, of Canton, Ill.; Report of Some Unusual Surgical Cases, by Dr. A. H. Cordier, of Kansas City, Mo.; Loss of Consciousness and Automatism in Inebriety, by Dr. Thomas D. Crothers, of Hartford, Conn.; The Relation of Trauma to Hernia by Dr. Daniel N. Eisendrath, of Chicago, Ill.; The Typical (Anatomical) Operation for the Radical Cure of Oblique Inguinal Hernia, by Dr. Alexander Hugh Ferguson, of Chicago, Ill.; Two Factors in the Pelvic Diseases of Women; Their Prevalence, Result, and Prevention, by Dr. J. H. Firestone, of Freeport, Ill.; A Plea for Better Feeding of the Patients in Our State Hospitals for the Insane, by Dr. W. B. Fletcher, of Indianapolis, Ind.; Perilous Calms of Appendicitis, by Dr. Robert Wallace Hardon, of Chicago, Ill.; Prophylaxis of Appendicitis, by Dr. William M. Harsha, of Chicago, Ill.; Factitious Eruptions, by Dr. M. L. Heidingsfeld, of Cincinnati, Ohio; Infectious Diseases: Their Communicability, Quarantine, and Prevention, by Dr. Henry D. Holton, of Brattleboro, Vt.; Formalin in the Treatment of Amœbic Dysentery and Kindred Affections, by Dr. John L. Jelks, of Memphis, Tenn.; Report of a Case of Brain Abscess of Otitic Origin, with Some Observations, by Dr. George F. Keiper, of LaFayette, Ind.; Report of Two Cases of Amputation of Both Legs; Recovery, by Dr. F. D. Kendall, of Columbia, S. C.; Report of Two Cases of Pancreatic Cyst, by Dr. VanBuren Knott, of Sioux City, Iowa; Extrauterine Pregnancy, by Dr. Florus F. Lawrence, of Columbus, Ohio; Report on Operative Work Through the Cystoscope, by Dr. Bransford Lewis, of St. Louis, Mo.; Insanity in Relation to Obstetrics and Gynæcology, by Dr. Henry F. Lewis, of Chicago, Ill.; A Contribution to the Plastic Surgery of the Urethra, by Dr. G. Frank Lydston, of Chicago, Ill.; Ectopic Gestation, by Dr. H. B. R. McCall, of Kansas City, Mo.; The Mamma: Its Physiological Purposes and Finer Anatomy, by Dr. Thomas H. Manley, of New York, N. Y.; Radium: Its Therapeutic Value, by Dr. M. Metzenbaum, of Cleveland, Ohio; Protection of the Axillary Nerves and Vessels After Dissection of the Axillary Space, by Dr. J. B. Murphy, of Chicago, Ill.; The Obstetrical Significance of the Transverse Diameter of the Pelvis, by Dr. Joseph B. DeLee, of Chicago, Ill.; Hereditary Predisposition to Tuberculosis, by Dr. Charles Louis Mix, of Chicago, Ill.; A Clinical Study of the Mental Disorders of Adolescence, by Dr. Frank C. Norbury, of Jacksonville, Ill.; Hospital Construction in American Cities, by Dr. A. J. Ochsner, of Chicago, Ill.; The Treatment of the Morphine Habit, by Dr. Curran Pope, of Louisville, Ky.; What Shall Be Done with the Criminal Insane? by Dr. John Punton, of Kansas City, Mo.; Strictures of the Urethra, by Dr. A. Ravogli of Cincinnati, Ohio; Foreign Bodies in the Cornea, by Dr. Dudley S. Reynolds, of Louisville, Ky.; The Transverse Fascial Incision for Operations in the Pelvis, with Report of Cases, by Dr. Emil Reis, of Chicago, Ill.; Why So Many Errors in the Diagnosis of Graves's Disease? by Dr. J. H. Stealy, of Freeport, Ill.; Association and Antagonism of Diseases, by Dr. Albert E. Sterne, of Indianapolis, Ind.; Suppuration of Nasal Accessory Sinuses; Symptoms and Treatment, by Dr. J. A. Stucky, of Lexington, Ky.; The Recognition of Important Eye Lesions by the Practitioner, by Dr. George F. Suker of Akron, O.; Valvidotomy Versus the Clip for Cure of Obstipation, by Dr. Sterling B. Taylor, of Columbus, Ohio; Internal Hæmorrhoids and Their Treatment, by Dr. Wells Teachnor, of Columbus, Ohio; A Clinical Experience, by Dr. W. W. Vinnedge, of LaFayette, Ind.; Needles, Ligatures, and Sutures; Their Uses and Abuses, by Dr. H. O. Walker, of Detroit, Mich.; The Combined Method in the Arrest and Cure of Tuberculosis, by Dr. H. B. Weaver, of Asheville, N. C.; Tenotomy of the Tendo Achillis in Partial Amputations of the Foot in Compound, Comminuted Fractures of the Tibia and Fibula, by Dr. J. R. Webster, of Chicago, Ill.; Subjective Versus Objective Requirements in Surgery, by Dr. Otho B. Will, of Peoria, Ill.; Radical Cure of Hernia, by Dr. Hal C. Wyman, of Detroit, Mich.; Acute Intestinal Surgery, with Remarks on Technics, by Dr. John Young Brown, of St. Louis, Mo. Henry Enos Tuley, M. D., secretary, 111 West Kentucky Street, Louisville, Ky.

Pith of Current Literature.

PRESSE MEDICALE.

July 2, 1904.

1. The Radical Cure of Crural Hernia, By CHAPUT.
2. A Case of Supertuberculization, By CARNOT.
3. Ventricular Trembling, By GLEY.
4. Functional Nasal Insufficiency and Respiratory Reeducation, By LERMOYEZ.

2. **Supertuberculization.**—Carnot, in view of the agitation concerning the hospitalization of the tuberculous, draws attention to the phenomena of reinfection and mutual contamination among them. He coins his new word on the same principle as superfœtation, etc. The process often passes unnoticed, being confounded with the anterior infection. Apparent relapses are possibly often reinfections due to unhealthy surroundings and on this theory are explicable the sudden acute and rapid cases following slow and uneventful ones. Carnot cites the case of a woman aged sixty-two years where the necropsy showed lesions of two distinct types. At the apices there were old and partially cicatrized lesions; in the genitourinary system were fine granulations particularly well marked at the base of the bladder. It was found that shortly after her admission to the hospital the woman had been examined with a sound carelessly asepticized after having been used on a patient suffering from grave meningitic symptoms, and who was subsequently found to have the same form of tuberculosis as that of the former woman's second attack. Experiments on guinea pigs, first inoculated with a mild type of tuberculosis and later on with a more virulent type, have convinced the writer of the force of his contention. He pleads against the herding of the tuberculous in special hospitals and advises isolation in the country, where air and sunshine are plentiful.

4. **Respiratory Reeducation.**—Lermoyez, in continuing his series of articles on this subject, mentions several cases where the nasal passages were quite free, but where mouth breathing existed. Some of these were hysterics, others seemed to have forgotten how to breathe through the nose. This functional nasal insufficiency is rare, but requires careful treatment. It occurs often where genuine adenoids have been removed, but where the patients, never having used the nose, have really to be taught to do so.

July 9, 1904.

1. Local Analgesia with Stovain, By RECLUS.
2. Treatment of Hysteria and Neurasthenia by Isolation and Psychotherapy, By THOMAS.
3. False Floating Kidney, By MAYOR.

2. **Hysteria and Neurasthenia.** — Thomas avoids drugs in the treatment of these conditions apparently increasing in France as elsewhere. His first remedy is isolation of the patient, then to become the latter's confidant and friend reasoning with him and cheering him up. Hope should be constantly inspired, but no sympathy shown for symptoms. Comfortable surroundings and good food are essential. At the Salpêtrière since 1895 a ward has been set aside for the treatment of indigent neurasthenics, and the results have been excellent. For some time the patients there are kept on a milk diet in beds surrounded by curtains, and conversation, except with the attending physician, is forbidden. Reading is not allowed nor any manual work. These restrictions are one by one and very gradually removed, and a cure must be well established before the patient is permitted to go out of doors or to receive visits from relatives.

3. **False Floating Kidney.**—Mayor says that if the skin over the suspected area is anointed with vaseline, the fingers in palpating will have no difficulty in diagnosticating a false tumor, which vanishes under the touch, whereas the displaced kidney seems to become more distinct in its outlines. Unhappily, however, this simple aid to palpation is of little value in the diagnosis of other abdominal lesions.

July 13, 1904.

1. Permanently Slow Pulse and Hysterotraumatism, By DEBOVE.
2. Surgical Intervention in, and the Pathological, Surgical Anatomy and Diagnosis of Pulmonary Gangrene, By AUVRAY.
3. The Chemical Analysis of Urine, By M. and H. LABBÉ.

1. **Slow Pulse.**—Debove cites a case in a young man whose pulse, after he had had a kick in the thigh from a horse, dropped to 28 beats a minute and has remained slow ever since, not going above 36. He attributes the phenomenon to hysterotraumatism. The patient also has headache, epileptiform attacks, and attacks of loss of consciousness. He is alcoholic and his family history is very bad, including alcoholism, hysteria, mild insaniy, and congenital cataract.

LYON MEDICAL

June 26, 1904.

1. The Temperature of the Nursling in Relation to Menstruation of the Nurse, By WEILL.
2. The Cattle Pest in Egypt, By PIOT BEY.

1. **Effect of Menstruation of Wet Nurse.**—Weill has found that the temperature of a healthy child rises from two to seven tenths of a degree centigrade while the nurse is menstruating. The substitution, however temporary, of cow's or ass's milk has a similar effect. Weill does not think the effect of much importance, and where menstruation is not unduly prolonged, it is not necessary to make a change of nurses.

SEMAINE MEDICALE.

July 13, 1904.

1. Denutrition by Persistence of Milk Secretion, By CHEINISSE.
2. The Aseptic Spirit in the Treatment of Wounds, By LEJARS
3. Abdominal Delimitation of the Liver and Spleen in Ascites, By BERTRAND.

1. **Effects of Persistent Milk Secretion.**—Cheinisse describes the case of a primipara who was obliged to wean her child at five months, but whose milk persisted in oozing for twenty-six months subsequently before she consulted him for a severe anæmia. The oozing stopped under 7 grain doses of antipyrine, and her health was rapidly restored. According to Cheinisse, such cases are not rare.

GAZZETTA DEGLI OSPEDALI E DELLE CLINICHE.

May 29, 1904.

1. Anomalous Onsets of Certain Infectious Diseases, By A. CAMPANI.
2. The Dissociation of Elementary Sensibilities in Hæmiplegia, By P. FERRI.
3. A Case of Hydromeningocele Treated by the Radical Surgical Method, By C. V. TESCO.
4. Contribution to the Causes and Treatment of Intractable Vomiting in Pregnant Women, By S. FRANCESCO.
5. Severe Nervous Reflexes in Normal Pregnancy; Treatment with Thyreioid Extract; Recovery, By V. VALERIO.
6. The Diagnosis of Perforating Peritonitis in the Course of Gastric Ulcer, By G. BENETTI.

3. **Surgical Treatment of Hydromeningocele.**—Tesco relates a case of hydromeningocele in a boy, aged eighteen months, in which a radical surgical operation was performed. The child died a month after the operation from acute enteritis. The author believes that radical surgical operation is the only method worth while in cases of spina bifida, and that such procedures as puncture, aspiration, the injection of iodine, etc., are mere makeshifts. An excision followed by a plastic operation is no more dangerous, if performed aseptically, than a less radical method. The radical method has a great advantage, in that it exposes the part fully in such a way that we know exactly what is being done.

4. **Causes and Treatment of Vomiting in Pregnancy.**—Francesco employed valerian in the treatment of excessive vomiting in pregnancy, and reports two cases in which he was able to check the uterine reflexes which give so much trouble. In both instances valerian was given after numerous remedies had been tried, including morphine, both by mouth and rectum. He considers valerian in the form of an infusion. administered in an enema, as a very efficient remedy in excessive vomiting of pregnant women.

5. **Thyreoid Extract in a Case of Exaggerated Nervous Reflexes in Pregnancy.**—Valerio describes the case of a woman who had a great variety of reflex symptoms, including pain and palpitation of the heart, dyspnœa on exertion, vertigo, etc., during her pregnancy. Thyreoid extract was used with marked success in the form of injections under the skin. Thyreoid extract has the effect of contracting the vessels of the female generative organs and of diminishing the sensibility thereof. The improvement after the injection of thyreoid extract in this case was very prompt, although it is possible that some of the effect was due to suggestion.

RIFORMA MEDICA.

June 22, 1904.

1. Special Eosinophile Bodies Resembling Negri's Corpuscles in the Ganglion Cells of Hydrophobia Patients, By Dr. PACE.
2. Lesions in the Liver, the Kidneys and the Lungs in Formalin Poisoning, By G. RIGGIO.
3. The Formation of Specific Antibodies Obtained by Injecting Various Pleuritic and Peritoneal Exudates and Transudates, By C. QUADRONE.
4. Some Important Laparotomies (*Continued*), By A. ALBAMESE.

1. **Eosinophile Bodies Resembling Negri's Corpuscles.**—Pace shows that certain special bodies, varying in size and shape, but usually appearing as minute irregular, round, or mulberry shaped corpuscles, are stained red by Mann's method in the ganglion cells of the spinal cord of hydrophobic patients. These bodies are not parasites, and should not be mistaken for very small Negri's bodies which may occur in the nerve cells of persons who died of other diseases than rabies. This research is interesting, because Mann's method is considered as practically specific for staining Negri's bodies.

2. **Lesions of Formalin Poisoning.**—Riggio studied the changes produced by formalin poisoning in various organs, a subject which has not received much attention in literature. He concluded that formalin is a poison which, when introduced into the body, either through respiration or subcutaneously, produces an intense congestion of the organs which eliminate it. This congestion may be so great that hæmorrhages may be found in the liver, the kidneys, and the lungs. The further action of formalin shows it to be a cellular poison which produces degenerative changes in the liver cells, in the cells of the convoluted tubules, and of the Henle's loops in the kidneys; a more or less pronounced desquamation of the epithelium of the biliary canals in the liver, of the epithelium of the glomeruli of the kidneys, and of the epithelium lining the alveoli and bronchi of the lungs.

June 29. 1904.

1. Intestinal Obstructions Due to an Abnormal Fixation of the Falloppian Tube. Salpingectomy. Recovery. By M. DARDANELLI.
2. Polyarthritis Due to the Pneumococcus, By A. BADUEL.
3. Anæsthesia with Ethyl Chloride, By V. GAUDINI.

1. **Intestinal Obstruction Due to Adherent Salpinx.**—Dardanelli relates a case of intestinal obstruction in a woman aged thirty-six years, in which the cause was an adherent condition of the salpinx, following a fixation of the uterus. The patient had felt perfectly well for three years after the first operation of uterofixation. On admission she presented very marked symptoms of intestinal obstruction and on laparotomy it was found that a loop of small intestine was jammed in a ring formed anteriorly by the abdominal wall, and posteriorly by a fibrous cord which arose from the uterus on the right side and was adherent to the wall at a distance of three fingers'

breadth from the umbilicus. The adherent cord was detached, and the intestine liberated. The cord was found to be the salpinx, and was removed. The author concludes from this case that ventrofixation is an operation which may be followed by intestinal obstruction as the result of abnormal adhesions. It is important, therefore, to remember this possibility and to diagnosticate the condition early enough to make prompt interference possible.

2. **Polyarthritis Due to the Pneumococcus.**—Baudel reports a case of polyarthritis in which the pneumococcus was found in large numbers in the pus from the pleuritic cavity of the patient, from the circulating blood, and from the liquid contained in the affected joints. The pneumococcus disappeared from the blood about two months after the beginning of the disease. The blood serum had the property of agglutinating cultures of the pneumococcus. In all cases the pneumococcus isolated showed a very mild pathogenic action. Experiments on animals with cultures of this germ showed that an increase in the amount of articular liquid could be produced in only one case out of two, and even in this instance there were no other lesions in the articular surfaces. The increased liquid contained pneumococci. There is no question in the case reported that the affection of the joints was directly referable to a preceding pneumonia.

3. **Anæsthesia With Ethyl Chloride.**—Gaudiani concludes from his personal experience with ethyl chloride in a large number of cases that this anæsthetic possesses a number of advantages and several disadvantages. The greatest advantage of this method is that it gives a rapid general anæsthesia which is adapted for small operations. The patients go under after from twenty-five seconds to a minute and one half, and only alcoholics resist for two minutes or over. Only one case in his experience was refractory to ethyl chloride; namely, a very strong boy who was to be operated on for a deep lumbar abscess. The patients take the anæsthetics quietly and show no alarming symptoms. Occasionally there is a partial respiratory paralysis without any fatal results, in cases in which other narcosis would be contraindicated. The author used this anæsthetic in patients with albuminuria, heart disease, etc., without noting any disturbances, and concludes that the method is very safe. The after effects are almost absent and some patients can walk at once on waking. Ethyl chloride anæsthesia is, therefore, adapted for operations performed in the office or in the dispensary. Patients seldom vomit during or after the narcosis unless they have just eaten.

The disadvantage of this method is the incomplete relaxation of the muscles which is obtained with ordinary doses of this anæsthetic. Even if large doses are given, and the muscles become relaxed, they may again contract suddenly without any apparent cause. The respiration is often so accelerated that it is difficult to operate on the abdomen. The author does not recommend the use of ethyl chloride in major operations, especially those on the abdomen.

ROUSSKY VRATCH.

June 19, 1904.

1. Some Observations Upon the Effect of Drugs and Poisons on the Movements of Excised Intestines of Warm Blooded Animals. A Preliminary Communication, By A. KOULIABKO, and I. I. ALEXANDROVITCH.
2. The Rapid Development of Formaldehyde Vapor for Disinfection, By V. A. LEVASHEFF.
3. A Large Cyst of the Ovary, By F. A. SOLOVIEFF.
4. Definite Localization of Lesions in the Heart Muscles (*To be concluded*), By M. I. BREICHMANN.
5. On the Ætiology of Annular Keratitis, By V. ADAMIUK.
6. Abnormal Vaginal Anus, By V. V. LEZINE.

1. **Action of Drugs on the Isolated Intestines of Animals.**—Kouliabko and Alexandrovitch removed portions of small intestines from rabbits, and kept these preparations in Locke's fluid, through which oxygen was pumped during the entire experiment. In this way the intestinal segments were kept alive while the action of various drugs upon them was watched. The first experiments were made with Canadian hemp. Considerable doses of this drug increased the tone of the intestinal muscles, and large doses produced tetanic contractions. Atropine was found to be directly antagonistic to Canadian hemp, diminishing the tone of the muscles. Veratrine showed an effect similar to that of apocynum, but less marked. Chloral produced an increased tone, and finally tetanic contraction, while, on the other hand, apomorphine weakened the tone and paralyzed the intestine. Extract of suprarenal glands, rather unexpectedly, was found not only not to cause any increase in the muscular tone of the intestines, but to reduce the contractive power of these structures. This effect was obtained with exceedingly dilute solutions. The action of suprarenal extract in this respect was found to be much more powerful and prompt than atropine. This effect of suprarenal extract on the intestinal muscles is directly opposed to that usually attributed to this drug.

3. **Large Cyst of the Ovary.**—Solovieff describes a case of cystic ovary, in a woman aged 32 years, which was removed under local anæsthesia. The case is interesting on account of the difficulties met with in removing this large cyst. When the abdomen was opened it was found that the cyst wall had been torn, and that it was closely adherent to the peritoneal lining of the abdomen, and in places to the intestines. The cysts evidently had ruptured shortly before the operation. The patient made a good recovery. The largest cyst on record was reported by Pfæhler and contained 74 litres of fluid weighing 97 kilogrammes.

5. **The Ætiology of Annular Keratitis.**—Adamiuk reports a case of annular keratitis in a man aged 66 years, in which the diphtheria bacillus was the cause of the lesion. The patient appeared with a purulent discharge in both eyes, and in the left eye an annular keratitis was found. There was, in addition, an old trachoma in the cicatrizing stage, and a fistula of the lacrymal tract of the right eye, through which a quantity of pus could be pressed. The keratitis gradually increased and ulcers of the

cornea appeared in the right eye. The diphtheria bacillus was found in the secretion of both eyes. Injections of antitoxine were given, and the usual local treatment was pursued, with the result that the patient rapidly improved, and the bacilli disappeared. Noteworthy features of this case were that there was no diphtheritic lesion of the conjunctiva, and that the antitoxine proved to be of much value in the treatment of the local process.

6. **Abnormal Vaginal Anus.**—Lezine describes a case in which sexual intercourse was followed by an unusually great injury to the vagina and rectum, giving rise to the condition known as vaginal anus. The patient was a woman aged 22 years, who had been married for over a year, but had not become pregnant. The vagina had been torn during the first sexual intercourse. During the act the patient had felt an excruciating pain, which caused her to scream. The coitus was immediately interrupted. The bleeding was not very marked, and two days later the patient noted that gas and masses of fæces were passed through the vagina. After a week she improved to such an extent that she could have intercourse without any pain. On examination a defect was found in the posterior wall of the vagina, penetrating into the rectum and admitting the ends of two fingers. Through this opening masses of fæcal matter were constantly discharged. The fistula was closed by a plastic operation, and complete healing was obtained.

June 26, 1904.

1. A Defense of Antisepsis (Phelps's Method) By G. I. TURNER.
2. The Bacteriology of Measles, By V. K. MENSHIKOFF.
3. The Connection Between Werlhof's Disease and Tuberculosis. By A. A. KISSÉL.
4. On the Question of the Presence of a Fixator in the Body of a Naturally Immune Animal. By P. ZABOLOTNOFF.
5. The Heart as a Muscular Organ with a Definite Localization of Functions. (In the Same Way as the Centres of the Nervous System), By M. I. BREITMAN.

1. **Asepsis and Antisepsis.**—Turner discusses the relative merits of asepsis and antisepsis, a question which had been discussed at the recent meeting of the British Medical Association. He deplores the introduction of the two terms, asepsis and antisepsis, as signifying something entirely different. Modern experience has shown that these two terms are practically identical in meaning, and the author believes that of the two antisepsis is the more rational term, and will remain to the exclusion of the other. He says, with Lockwood, that antisepsis is the method whereby we secure asepsis. When measures are taken to prevent the spread of cholera, e. g., by disinfecting excreta; isolating and treating patients; etc.; no one would think of calling some of these measures anticholeric and others acholeric.

Antisepsis by means of chemical agents is still of great value in a number of surgical conditions in which there is no question of preventing infection, but of fighting one already present. The fear of producing a systemic poisoning by the local use of an antiseptic has been exaggerated: for we can always control a possible general action of an antiseptic by preventing its absorption.

In 1900 Phelps published an article in which he strongly advocated the use of pure carbolic acid in the treatment of abscesses and other infective conditions. In the treatment of tuberculous joints, Phelps filled the joint cavity with pure carbolic acid, which he allowed to remain for a minute, then washed out with alcohol, which he finally removed by means of a 2 per cent. carbolic acid solution. Powell showed that alcohol is an antagonist of carbolic acid, but our author thinks that alcohol acts merely as a ready solvent for carbolic acid, and thus thoroughly removes it. Since Phelps's announcement a number of surgeons have employed his method. Turner warmly recommends it, reports a number of cases in which he used it, and concludes that it is extremely useful in both tuberculous and simple infectious processes.

2. **The Bacteriology of Measles.**—Menshikoff submits a preliminary report of certain experiments which led him to the conclusion that measles may possibly be caused by microbes resembling the pneumococcus, but distinguished from the latter by their virulence. He concludes that only one microorganism is found in all cases of measles, namely, a short diplostreptococcus, and, while there is not sufficient proof as yet to assert that this germ is the cause of measles, it is certainly a contant accompaniment of this disease giving rise to many of its complications. Its rôle in measles is analogous to that of the streptococcus in scarlet fever.

3. **Werlhof's Disease and Tuberculosis.**—The conclusions of Kissel as regards the question of the relationship of tuberculosis and Werlhof's disease are as follows: While the causes of purpura at the present day are very obscure, yet the majority of cases do not resemble an infectious disease. There are reasons to think that in some instances purpura develops in connection with tuberculosis. The hæmorrhagic diathesis is very frequently seen in Russia, but it is very difficult to draw a line between the three types of purpura, the simple, the rheumatic and the hæmorrhagic. Of 91 cases of various forms of hæmorrhagic diathesis, only 3 died, and in most instances the disease was very mild.

July 3, 1904.

1. Some Notes on the Comparaitve Action of Narcotic Drugs, By I. E. PETCHNIKOFF.
2. The Influence of Oatmeal Diet According to Von Noorden Upon the Course of Diabetes. (A Preliminary Communication), By A. A. ARCHIPOFF.
3. Sixty-five Cases of Hernia Treated by Operation, By V. G. LESSOVOI.
4. On the Removal of Pointed Condylomas Which Have Reached a Large Size. By P. P. VOLOKOFF.
5. Double Uterus with an Unusual Form of Miscarriage. Normal Labor at Term. By S. A. NIKONOFF.

2. **Oatmeal Diet in Diabetes.**—Archipoff says that experiments on the influence of oatmeal diet upon diabetes proved that the unfavorable effects of carbohydrates in the diet of diabetics has been greatly exaggerated. Von Noorden, in 1903, recommended a diet of oats in diabetes, basing his

conclusion upon five cases. This author found that in one case glycosuria, which had not been amenable to even the strictest diet, disappeared upon the fourth day after the oatmeal diet had been established. After forty-nine days the patient took with impunity all forms of food which formerly produced an elimination of 50 gms. of sugar or more daily. The patient was discharged, after repeated examinations had not shown sugar in the urine. Von Noorden cannot explain the action of the oats. The present author bases his conclusions upon six cases in which he employed a diet of oatmeal. The food for these patients consisted of 250 grms. of oatmeal, 300 gms. of sweet butter, and 100 gms. of vegetable albumen in soluble form.

Archipoff admits that the nutritive value of this diet is lower than of a diet of meat, and thinks that the oats play a secondary rôle, while the fat added to the oatmeal is the principal food taken by these patients. He found that in severe cases of diabetes an oatmeal diet does not present any special advantages. Oatmeal diet is indicated in those severe cases in which mastication is difficult and the patient is exhausted after a very strict diet. It is known that the exclusion of all carbohydrates is sometimes dangerous. The vegetable albumen added to the oatmeal does not have any injurious influence, while animal albumen interferes with the action of the diet.

4. **The Removal of Pointed Condylomas.**—Volokoff describes a new method of removing pointed condylomas which have reached considerable size. The methods hitherto used are often followed by considerable hæmorrhage and the removal of these growths by excision often involves the removal of healthy tissues and necessitates a plastic operation for the closure of the wound. The method pursued by the author is not difficult of execution, is accompanied by comparatively slight hæmorrhage, and does not require any instruments. It must be remembered that the skin over the condylomas is very thin, and especially that the connections of these growths with the healthy skin at the base are very loose. It is often found that when the condylomas are slightly drawn away from the skin at the periphery, the growth falls away in large pieces. The surface of the skin thus denuded bleeds a little, but the bleeding is easily stopped with cold boric acid solution. The author's method consists in wrapping his hand with soft gauze moistened in boric acid solution, and gradually detaching the growths, beginning at the periphery and working towards the centre. In this manner the greater part of the tumor can be removed and the skin thus laid bare may be covered with gauze moistened with a solution of ferric chloride. After a few days the denuded surface healed perfectly and the remainder of the tumor was removed in the same manner by working gradually towards the centre. Very small condylomas were drawn away from the skin by means of forceps and were detached at the periphery with the handle of a knife. The surface laid bare easily healed in all cases after application of a dusting powder.

July 10, 1904.

1. The Bacteriology of Measles. A Preliminary Communication, By S. I. Zlatogoroff.
2. Some Measures Necessary for Preventing Disease in the Army During a War, By G. V. Olderogge.
3. High Tension Currents in the Treatment of Diseases of Women, By R. A. Popova.
4. Rare Case of Syphilitic Infection. Syphilis Insontium, By N. O. Romanofsky.
5. Foreign Body in the Perinæum, By A. I. Gielikoff, and B. K. Bauer.
6. Report of the St. Petersburg Lying-in Asylum for 1902 and 1903 (*To be concluded*), By E. L. Poushkina

1. **The Bacteriology of Measles.**—Zlatogoroff investigated the secretions of the eye, nose, and blood of 30 patients with measles. He found that the best time for making cultures was at the acme of the disease when the eruption was marked and the temperature high. The media used included the ordinary nutrient substances with glycerin, and also special media prepared from fresh human placenta or from fresh human lungs. Only the two last named special media were found to be effective. Cultures from the nose gave a great variety of germs, among which a bacillus resembling that which occurred in the blood was isolated only once. The secretion from the eye showed the presence of the bacillus of xerosis, and of another bacillus resembling it, but smaller. The latter was not very active, did not grow readily on culture media, was stained by Gram's method, was non-motile, did not form spores, and was not markedly pathogenic in animals. The most satisfactory results were obtained on examining the blood. In seventeen out of twenty-four cases a bacillus was isolated in pure culture from the blood; was stained with aniline dyes and with Gram's method, was slightly motile, and usually occurred in pairs or in groups. The germ had rounded ends which often stained better than the middle portion, and was not over 0.7 or 0.8 *microns* in length. Cultures made from the blood of healthy persons or of persons suffering from other infectious diseases never showed the presence of this germ.

The author was not sure that the bacillus found in the blood was identical with that found in the secretions from the eye and nose, but believes that the germ found in the blood will turn out to be the specific cause of measles.

2. **The Prevention of Disease in the Army.**—Olderogge reviews the causes of epidemic disease in armies in the field and presents various suggestions as to preventive measures to be adopted in time of war. The chief cause of epidemics during a war is the carelessness of the soldier concerning his excreta which are often left upon the surface of the ground during a march. Each division of an army during a march thinks only about itself and does not consider that the division which follows must bivouac upon ground which has been soiled by excrement. During the Turkish war a regiment remained camping in one place for three weeks until the soldiers could not stand the foul emanations of their own excreta, and the camp had to be shifted.

For several months afterward it was impossible to use the road which passed in the neighborhood of this camp, and a new road had to be built with a détour of over a mile. The construction of latrines, therefore, should be the first care of a commander, wherever his division goes. Every means possible should be used also in fighting the flies, which are one of the most important sources of contagion; for this purpose fly paper, screens, etc., should be used. In order to destroy insects which infest the body of the soldier, an infusion of sevadilla is very useful, and the author recommends that this remedy be used extensively, especially in the hospitals. An important detail is that a commander should always inform beforehand the medical staff of a hospital division in the field when he expects to engage in battle, so that hospitals should be ready for any emergency. When hospital tents are lacking, temporary sheds or barracks can be constructed out of anything that is handy. In China it is easy to convert many of the houses found in the farming country into fairly acceptable hospital barracks.

4. **Syphilis Insontium.** — Romanofsky describes a case of syphilis in a man aged 29 years, who developed a chancre on the bridge of the nose three weeks after having been scratched with a finger nail by a fellow workman. Syphilis should be considered as one of the general infectious diseases, and not as a venereal affection, for in such cases as this, it has nothing to do with the cult of Venus.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

August 20, 1904.

1. Static Foot Error. Analysis of 1,000 Cases, By WILLIAM P. BLODGETT.
2. Practical Notes on Ointments, Their Use and Abuse, By L. DUNCAN BULKLEY.
3. Cover Glass Cultures and Their Possibilities in Studying Epidermic Fungi, By J. FRANK WALLIS.
4. Neoplasm (Epithelioma) of the Pulp, By V. A. LATHAM.
5. Ascaris Texana. A Note on a Hitherto Undescribed Ascaris Parasitic in the Human Intestine, By ALLAN J. SMITH, and RICHARD A. GOETH.
6. The United States Public Health and Marine Hospital Service. Part I. A Historical Sketch. Dr. Wyman's Administration (1891 to the Present).
7. Travel Notes. V. Italy and the Great Antimalarial Campaign, By LEWELLYS F. BAKER.

1. **Static Foot Error.**—Blodgett asserts that the object of his investigation was (1) to contribute to the sum of available statistics of static foot error; (2) to draw from the cases any warrantable conclusions. (1) The first part of the paper is entirely statistical. It shows that forty-one per cent. of all orthopædic cases admitted to the out-patient department of the Carney Hospital suffered from static foot errors. These affections are more frequent among females than among males and fifty per cent. of the cases occur between the ages of twenty and forty years. Traumatism was the ætiological factor in eighty-five per cent. of the cases. (2) The conclusions to be drawn are: (a) About eighty-six per cent. are susceptible to treatment by means of foot plates. Seventy per cent. will be entirely or very materially relieved of their symptoms. (b) Failure to obtain results is not infrequently due to the following causes: mistakes in diagnosis; lack of cooperation on the part of the patient; a persistence or a return of local anatomical conditions which interfere with a correct weight bearing position and a normal mobility of the foot.

2. **Ointments.**—Bulkley attempts to cover in a practical manner the following points: (1) Bases for ointments; (2) ingredients; (3) methods of compounding; (4) strength; (5) mode of application and removal; (6) indications and contraindications for ointments. The paper is addressed to the general practitioner and not to the specialist, and most particularly to the general practitioner whose chief if not sole acquaintance with ointments is limited to zinc oxide.

3. **Cover Glass Cultures.**—Wallis reports a simple method for making cultures, on cover glasses, of epidermic fungi. The chief advantage claimed for this method over all others is that it enables the observer to note and preserve, by means of stained and mounted specimens, the various stages in the development of moulds. The only apparatus required is a glass dish, three or four Petri plates, and a glass hood about three inches in diameter and of the same height. The cultures grow at room temperature. The article is fully illustrated.

5. **Ascaris Texana.**—Smith and Goeth make the tentative announcement of a new species of ascaris on the strength of the study of two female specimens. They illustrate their article and call attention to the various particulars in which this new parasite differs from all other forms of ascarides known.

BOSTON MEDICAL AND SURGICAL JOURNAL.

August 18, 1904.

1. Mind Cures from the Standpoint of the General Practitioner, By ROBERT T. EDES.
2. A Consideration of Mental Therapeutics as Employed by Special Students of the Subject, By JAMES J. PUTNAM.
3. Operations on the Stomach, with Report of Cases (*Continued*), By JOHN C. MUNRO.

1. **Mind Cures.**—Edes asserts that while it is apparently true that certain diseased states, diabetes for example, may be directly due to nervous shocks, it is not at all proved that mental impressions are capable of undoing the damage once it has occurred. If psychic influences have any curative effect in disease their action is exceedingly feeble and limited to a very few conditions.

2. **Mental Therapeutics.**—Putnam seems to believe that there are not a few disorders due to what we may possibly describe as the possession of the subconscious mind by a controlling idea. To this process the term "dissociation of consciousness" is often given. Patients suffering from such a condition are supposed to lead a sort of synchronous double existence. It is, according to the author, the function of the doctor to

heal this breach and to bring about a unity of mind. This is accomplished, principally, by suggestion or hypnotism.

MEDICAL RECORD

August 20, 1904.

1. A Possible Cause of High Tension Pulse in Nephritis, By W. H. THOMSON.
2. Treatment of Rupture of the Posterior Urethra, By WELLER VAN HOOK.
3. Primitive Medicine, By E. J. KEMPF.
4. Alcoholism and Drug Habits; Their Pathology and Treatment, By KANUTE ARVID ENLIND.

1. **High Tension in Nephritis.**—Thomson asserts his belief that the high tension pulse in nephritis is originally due to a general cramp of the muscular layer of the arterial walls, which cramp continues so long as the specific excitant of the muscular coat continues to circulate in the blood. This had led him to reverse the steps in the ætiology of many of the common forms of arterial degeneration, so that now, instead of regarding endarteritis, as he formerly did, as the cause of high tension pulse, he regards the high tension as the cause of the endarteritis. The author does not know the nature of the agent which brings about arterial spasm. It is a substance which, in its physiological characteristics, resembles the internal secretion of the adrenals. The practical point is that in certain cases, notably in chronic interstitial nephritis, the kidney insufficiency is not at first due wholly to sclerosis of the kidney tissue. Part of the insufficiency is due to the functional contraction of the kidney brought about by some poison in the circulation. If this is true then an efficient vasodilator ought to increase the kidney function and the increase in the output of urea should be the index of the improvement in function. Aconite, in five drop doses, every three hours night and day will, in suitable cases, so reduce tension that the output of urea will be increased from 6 to 40 grammes in the twenty-four hours. The author holds that these observations indicate the proper way not only to palliate the symptoms in chronic nephritis, but also to retard the inevitable vascular degeneration which will follow the persistent high tension. Three illustrative cases are reported.

2. **Rupture of the Posterior Urethra.**—Van Hook, after noting that the only rational treatment of complete laceration of the posterior urethra is immediate perineal section, records one case which illustrates his own method of treating these cases. We can call attention only to a few points made by the author: (1) He asserts that it is possible by the sense of touch alone to locate the proximal end of the ruptured urethra. The method for doing this is described in detail. (2) If possible, the severed ends of the urethra should be united by catgut stitches. A catheter should not be left in place. (3) If the severed ends cannot be united, then drain the bladder by means of a perineal tube, but do not use a catheter *à demeure*. The perineal wound should be only partially closed. At the end of a week or ten days use sounds.

4. **Alcoholism and Drug Habits.**—Enlind's method of treating alcoholism and the drug habits is as follows: (1) Clear the intestinal tract and then give a Turkish bath, which in its turn is followed by a scrubbing with soap and water. (2) Induce sleep for thirty-six or forty-eight hours. During this period the drug is withdrawn. The patient is aroused and fed at regular intervals, and at the same time all the eliminating organs are vigorously stimulated. (3) At the end of a few days (after the elimination has been completed) the patient is allowed to get out of bed and is given gentle exercise and a tonic treatment.

MEDICAL NEWS.

August 20, 1904.

1. Technical Errors in the Use of Rubber Gloves, By HOWARD D. COLLINS.
2. Interstitial Gingivitis or Scorbutus, By EUGENE S. TALBOT.
3. Some Weather Observations in the Adirondacks, By LAWRASON BROWN.
4. The Biological Interpretation of Cancer, By ALEXANDER SPINGARN.
5. Appendicitis: Pathology and Surgical Treatment, By EDWARD N. LIELL.
6. Beginning General Paresis, Its Recognition and Management. By CHARLES LEWIS ALLEN
7. The Bacteriology of Panophthalmitis, By RICHARD H. JOHNSTON.
8. Autointoxication of Gastrointestinal Origin. By CLIFTON MAYFIELD.
9. Bacteriuria, with Special Reference to Coli Bacilluria, By ARTHUR R. ELLIOTT.
10. The Uses of X Ray in Medicine and Surgery, By RUSSELL H. BOGGS.

2. **Interstitial Gingivitis.**—Talbot holds that the outbreaks of "scurvy" that were noticed in South Africa during the recent war were not true scorbutus, but an affection of the gums to which he gives the name interstitial gingivitis. The outbreaks in question did not depend on the quality of the food eaten, but were in direct proportion to the neglect of cleanliness. The author holds that autointoxication, due to faulty metabolism and changes in climate and surroundings causing a want of proper adjustment of the excretory organs produce the type of interstitial gingivitis designated as "scurvy." The same results have appeared with the American soldiers in Cuba and the Philippines, and engineers and workmen building railroads in high altitudes in Switzerland.

3. **The Weather in the Adirondacks.**—Brown summarizes his observations thus: (1) The climate of the Adirondack mountains is cool and moist during seven months of the year; cold and dry during five months. (2) The entire region enjoys freedom from dust and disagreeable winds. (3) The number of clear days is small, the number of cloudy days excessive, and the number of partly cloudy days much below the general average.

4. **Cancer.**—Spingarn's paper on the biological interpretation of cancer is decidedly speculative in character. The author's views are based on argument by induction propped up by analogy.

5. **Appendicitis.**—Liell has operated on fourteen cases of appendicitis in six years and has lost two of them. His paper is based on these cases and on what he has read on appendicitis.

6. **General Paresis.**—Allen recognizes three general types of the disease. (1) The dement; (2) the so called classical type; (3) the melancholic type. Little can be done in the way of treatment. The physician's chief duty is to guard the patient and his family from the accidents of the disease. Therefore early diagnosis is a matter of importance. To summarize the symptoms briefly we may say: Severe neurasthenic, or hypochondriacal symptoms, or any decided mental change coming on without known cause in a man from thirty to fifty years old, should be regarded as suspicious. If there was previous syphilis the probability of general paresis is great. If in addition there is immobility of the pupils, with loss of knee-jerk, the diagnosis is practically certain, while if to the above there are added the characteristic speech disturbances, and a convulsive seizure, there is no longer any doubt.

7. **Panophthalmitis.**—Johnston holds that most of the cases of panophthalmitis are due to infection of the eye by the pneumococcus of Fraenkle. He recommends, therefore, that before operation upon the eye the absence of the pneumococcus be proved by cultures and animal inoculations with the secretions from the eye. If this was regularly done there would be fewer cases of panophthalmitis following cataract operations.

9. **Bacteriuria.**—Elliott asserts that the term bacteriuria, as originally employed by Roberts and Ultzmann, and as understood in clinical medicine, means an infection of the urine by bacteria from some source within or tributary to the urinary tract itself. A distinction is therefore to be made between such cases and those in which the urine acts merely as a vehicle for removal of disease germs from the system. The diagnosis is based on the condition of the urine. When first voided it is cloudy, often lactescent, and gives forth a putrid, revolting smell, which has been likened by Moullin to the stench of stale fish. The turbidity of the urine when voided, and the penetrating offensive odor are the characteristic symptoms of the condition. The author believes that infection most frequently occurs by a migration of the colon bacillus through the wall of the bowel. The treatment is much like that usually recommended for posterior urethritis and prostatitis. Many of the cases are rebellious to medication.

AMERICAN MEDICINE.

August 20, 1904.

1. Laceration of the Cervix Uteri, By J. M. BALDY.
2. A Case of Malignant Adenoma of the Liver, By GEORGE L. PEABODY.
3. The Existence of Cervical Ribs in Man, By DANIEL N. EISENDRATH.
4. The Value of Nonoperative Local Treatment in Gynæcology, By WILLIS E. FORD.
5. The Modern Treatment of Pulmonary Tuberculosis, By FRANK WARNER.
6. A Plea for a More Just Judgment of Narcotic Drug Users, By GEORGE E. PETTEY.
7. Open Oral Questions. By WILLIAM J. LEDERER.
8. Meteorism in Pneumonia: Its Prognostic Importance. Report of a Case of Peritonitis Complicating Pneumonia, By HELIODOR SCHILLER.
9. Protective Inoculation, By GEORGE F. BUTLER.

1. **Lacerations of the Cervix.**—Baldy protests against the advice which is frequently given to repair all lacerations of the cervix as soon as they occur. He does not believe that an untreated laceration of the cervix predisposes to cancer and holds that to date not a single scientific fact has been adduced to support such a theory. With regard to the effects of laceration in themselves the author has this to say: "I see no reason to depart from the opinion long ago expressed by Emmet that the majority of lacerations of the cervix heal spontaneously, that large numbers remain as secondary conditions, which need no subsequent surgical interference; that the conditions which indicate the necessity of surgical repair are the existence of infiltration sufficient to induce eversion of the lips and consequent erosion of the mucous membrane lining the inner surfaces of the lips. And it is further true that in the vast majority of such cases there is an accompanying infection of the endometrium, which needs the use of the curette."

3. **Cervical Ribs.**—Eisendrath reports one case in which he diagnosticated the presence of a cervical rib during life. There have been in all 34 such cases recorded and the author gives an abstract of each of them.

4. **Local Treatment in Gynæcology.**—Ford urges that gynæcologists should not confine themselves to operative treatment. If all gynæcological cases received judicious and early local treatment there would be less need for so many spectacular operations.

6. **Narcotic Drug Users.**—Pettey asserts that drug users as a class have as fine moral qualities as ordinary people. Drugs in themselves have not the power of wrecking character. What does wreck character is the intolerance with which those addicted to some drug are treated by their families and friends. It is the necessity of concealing their habits and obtaining their drugs that makes liars of them. Several cases are reported in support of this theory.

8. **Meteorism in Pneumonia.**—Schiller draws the following conclusions: (1) Meteorism in a slight degree frequently accompanies pneumonia, especially if the pneumonia is in the lower lobes of the lungs; (2) meteorism in the lighter degrees may be produced by the deficiency of the mechanical action of the diaphragm upon the intestines; (3) meteorism of a distinct or considerable degree is rare. It may be produced either (*a*) by a complicating peritonitis, or (*b*) by an acute septic intestinal catarrh, due to diplococci or streptococci or influenza bacilli, the microbes that produced the pneumonia, or (*c*) by a toxic paresis of the intestines. Meteorism in cases of pneumonia or sepsis in which the peritonæum is normal cannot be explained in

any other way; (4) meteorism of considerable degree is one of the worst prognostic symptoms in pneumonia. When it is distinct it makes the prognosis very grave and indicates a severe and often deadly course.

LANCET.

August 6, 1904.

1. The Cerebral Invasion of Pathogenic and Pyogenic Organisms and on the Choice of Ligatures, By Sir W. Macewen.
2. Bright's Disease and Its Varieties. (Croonian Lectures: IV), By J. R. Bradford.
3. On Diaphragmatic Hernia of the Stomach and on Torsion of the Small Omentum and Volvulus of the Stomach in Association with It, By R. L. Knaggs.
4. Heart Lesions: Some Points in Their Diagnosis and Treatment, By J. H. Abram.
5. The Relation of Inebriety to Insanity and Its Treatment, By R. Jones.
6. Contribution to the Serotherapeutic Treatment of Anthrax; Two Cases of General Anthrax Infection in Man Cured with Antianthrax Serum, By I. Bandi.
7. Case of Removal of the Appendix on a Royal Mail Steamer at Sea; Recovery, By T. H. Macfie.
8. A Note on Homemade "Humanized" Milk, By C. B. Hall.
9. Extrauterine Gestation: a Full Term Child Removed by Operation Four Months After Fœtal Death, By G. E. Wherry.

1. **Cerebral Infection.**—Macewen states that in the great majority of instances in which abscess of the brain has formed from primary foci on the exterior of the skull, the brain abscess is situated in direct contiguity with the infected structures. Anatomical features or the results of prior pathological processes usually determine the particular direction in which the pyogenic organisms proceed from the primary focus to the brain. Anatomical features are often secondary determining factors between abscess and meningitis, and, in the latter case, between localized and generalized lesions. If the access of the pyogenic organisms has been by way of the tegmen or sigmoid, abscess of the brain or cerebellum is frequent; and if meningitis results, it is at least primarily localized, often the result of a soldering process, does not immediately involve vital structures, and is often amenable to treatment. If the pyogenic organisms travel by way of the internal auditory meatus, they cause leptomeningitis, serious because of its being basal and early involving the medulla, and because of its inaccessibility. But abscess of the brain seldom or never occurs by pyogenic organisms travelling by way of the internal auditory meatus. Tuberculosis of the middle ear quite often extends to the brain, the membrana tympani remaining intact. When the membrane is ruptured secondary pyogenic invasion may occur. Tuberculosis of the mastoid may also become a menace to life by dissemination through the sigmoid sinus. In conclusion, the author discusses the choice of suitable material for ligatures and sutures, the requirements of the living tissue relative to them, the causes which retard absorption of catgut sutures, and the mode of absorption of catgut. For ligatures and sutures catgut is the best material. It must be of the best quality and suitably prepared. One excellent medium for the latter purpose is a mixture of glycerin and an aqueous solution of chromic acid, and the gut may be stored in a carbolized glycerin solution.

2. **Bright's Disease.**—Bradford, in his fourth Croonian lecture, discusses chronic Bright's disease. He separates all forms of degeneration of the kidney and the red granular or "raspberry" kidney from true Bright's disease. Two forms of chronic Bright's disease may be recognized: these are the well known large white kidney and the contracted white kidney, and the macroscopic and microscopic appearances of both are carefully described. The contracted form is not necessarily dependent on or a sequel to the large form. Clinically two forms of the disease are also recognized; in one there is the ordinary picture of chronic Bright's disease with dropsy, diminished amount of urine, large amount of albumin, and a considerable variety of casts. The second form is characterized by its tendency to occur in the young, by the secretion of an abundant highly albuminous urine, by the clinical course being either latent or one where the main symptoms may be said to be those of a sudden onset and characterized by the predominance of uræmic symptoms.

3. **Diaphragmatic Hernia.**—Knaggs classifies diaphragmatic herniæ as follows: (1) Congenital; (2) traumatic; and (3) acquired. Hernia of the stomach may be complete, incomplete, partial, or a Richter's hernia, and associated with other viscera. The majority of symptoms fall into one of the following groups: dyspnœa, dyspepsia, obstruction and strangulation, and tetany. The physical signs are very indeterminate. Among them may be mentioned (a) stomach or intestinal noises in the chest; (b) intestinal peristalsis communicating writhing movements to the chest wall; (c) displacement of the heart to the right side, and (d) a respiratory bruit. Among the signs of subsidiary value are absence of breath sounds, alterations in resonance, changes in shape and deficient movement of the side of the chest in which the hernia is situated, sinking in of the epigastrium, and inability to lie on the opposite side.

Distention of the stomach is often present and may be enormous. It may lead to thinning of the stomach wall and so enable a trivial accident to produce perforation and the extravasation of the copious contents into the pleural cavity. Attention is called to the occurrence of strangulation by volvulus of the stomach or by torsion of the small omentum.

6. **Anthrax.**—Bandi gives a detailed account of two cases of general anthrax infection, proved to be so bacteriologically, and successfully treated with antianthrax serum. The serum was prepared by the inoculation of sheep with gradually increasing doses of "sensitized" anthrax bacilli alternately with injections of older anthrax cultures in broth to which had been added five per cent. gelatin, with the intention of also inoculat-

ing in all probability considerable doses of the toxic products of the anthrax bacillus. The serum thus obtained possessed considerable antitoxic and antibactericidal powers against anthrax infection. Very large doses were given—as much as 150 cubic centimetres at one time. In the most severe of the two cases the action of the serum was rapidly decisive when complete cauterization of the primitive seat of infection had completely failed.

BRITISH MEDICAL JOURNAL.

August 6, 1904.

(*Seventy-second Annual Meeting of the British Medical Association. Section of Army, Navy, and Ambulance*).

1. Introductory Remarks by the President. By A. F. BRADSHAW.
2. Camp Sanitation, By E. C. FREEMAN.
3. Sanitation in Volunteer Camps and the Disposal of Refuse and Excreta, By P. B. GILES.
4. Naval Dietary, By J. FALCONER-HALL.
5. Duties of a Medical Officer with a Regimental Unit in the Field, By J. F. DONEGAN.
6. On Sterilization of Infective Discharges and Utensils on Field Service, By A. M. DAVIES.
6. The Recruiting Problem, By W. C. BREVOR.

2, 3, 6. **Camp Sanitation.**—Freeman says that the principles of camp sanitation find their chief application in standing camps: sickness and epidemic disease seldom break out in troops on the march. The medical authorities should always be consulted when a choice of camp sites has to be made. Graveyards, swamps, etc., should always be avoided. The ridge pole tent is the best form, and animals in camp should be picketed as far from the tents as is permissible. It is better to secure a decent source of water supply and keep it uncontaminated than to take the water haphazard and trust to purifying it by boiling or filtration. Exception is made where there is any fear of cholera: then all the drinking water should be boiled or filtered, preferably the former. Field kitchens should be kept clean and no fragments of food thrown on the ground. All abattoirs should be at least half a mile from the camp, and all offal burnt at once. Latrines are the crux of camp sanitation. Where the pail system can be carried out it is much to be preferred to the trench system. But the buckets must be in good order and numerous, and the soil carts efficient.

Giles considers all attempts to restrict the area of a camp as risky. The illnesses peculiar to camp are *de facto*, such as are common to crowded and ill ventilated localities—namely, diarrhœa, sore throat, rheumatism, pneumonia, dysentery, and typhoid fever. The best way to prevent them is to obtain the best ventilation, cleanliness, disposal of refuse and excreta, etc. All tents should be struck once a week, the floors scrubbed, and the whole contents exposed to the sun. Cold wet weather is better from a sanitary point of view than hot damp weather. Clothing should be light and of wool, all linens to be avoided. Rations should be well but not over-cooked and varied as much as possible. All drinking water should be pumped into a tank and the water carts filled by a pipe. The writer is opposed to water bottles: they are hard to keep clean, and those who use them most are least subject to thirst control. Urine should be passed separately into troughs and carried into a barrel, the trough and barrel being filled with sawdust, which latter can be burned from time to time. All camp refuse can and should be burned.

Davies states that there are four practical methods of dealing with infective discharges (excreta, etc.) when on active field service, as follows: (1) Burial in earth, either in deep or shallow trenches. This is not to be recommended if it can possibly be helped.

(2) Treatment with disinfectants, followed by burial. Although the risk of polluting the air and soil is less, it is difficult to thoroughly apply the disinfectants to solid excreta, and some hours are required for their complete action.

(3) Sterilization by moist heat (boiling). This is undoubtedly efficient, but the quantity of fuel required is large, and the material disinfected (or at any rate a considerable proportion of it) remains to be disposed of by burial or otherwise.

(4) Destruction by fire. Here also a considerable amount of fuel is required, but the offensive matters are completely destroyed.

As regards ease and inoffensiveness of working Indian experience is unfavorable to the use of incinerators. In South Africa, however, they were used with success in many instances. But the preponderance of medical opinion seems to be in favor of boiling.

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To the Members of the Northern New York Medical Association and the St. Lawrence County Medical Society.—After due consideration on the part of the officers of the Northern New York Medical Association and the officers of the St. Lawrence County Medical Society, it was decided to hold the meeting of both bodies on October 18, 1904, at Ogdensburg, N. Y., the Northern New York Medical Association holding session during the afternoon and the county society during the evening of the same day. The afternoon session will be held at the St. Lawrence State Hospital, upon the invitation of the superintendent, Dr. R. H. Hutchings. The evening session will take place in the city hall. Following the evening meeting a banquet will be held under charge of both societies. This arrangement will permit members of either society to attend both meetings, and it is desirable that the members cooperate as far as possible to make this union meeting both pleasant and profitable by their attendance and participation. It is also urged that members who will present papers notify (giving title) the president of their respective society on or before July 25th, in order that a provisional programme may be prepared at an early date. Members are urged to present for the benefit of the society any interesting cases occurring in their practices. The usual programme will be mailed at a later date. (Signed) M. D. Briggs, President Northern New York Medical Association. E. M. Somers, President St. Lawrence County Medical Society.

Letters to the Editor.

THE AMERICAN MEDICAL SOCIETY FOR THE STUDY OF ALCOHOL AND OTHER NARCOTICS.

Hartford, Conn., *August* 17, 1904.

To the Editor,

Sir: This society was organized June 8, 1904, by the union of the American Association for the Study of Inebriety and the Medical Temperance Association. Both these societies are composed of physicians interested in the study and treatment of inebriety and the physiological nature and action of alcohol and narcotics in health and disease. The first society was organized in 1870 and has published five volumes of transactions and twenty-seven yearly volumes of the *Quarterly Journal of Inebriety*. The second society began in 1891, and has issued three volumes of transactions and for seven years published a *Quarterly Bulletin* containing the papers read at its meetings. The special object of the union of the two societies is to create greater interest among physicians to study one of the greatest evils of modern times. Its plan of work is to encourage and promote more exact scientific studies of the nature and effects of alcohol in health and disease, particularly of its ætiological, physiological, and therapeutic relations. Second, to secure more accurate investigations of the diseases associated with or following from the use of alcohol and narcotics. Third, to correct the present empirical treatment of these diseases by secret drugs and so called specifics, and to secure legislation prohibiting the sale of nostrums, purporting to be absolute cures, containing dangerous poisons. Fourth, to encourage special legislation for the care, control, and medical treatment of spirit and drug takers. The alcoholic problem and the diseases which centre in and spring from it are becoming more prominent, and its medical and hygienic importance has assumed such proportions that physicians everywhere are called on for advice and counsel. Public sentiment is turning to medical men for authoritative facts and conclusions to enable them to realize the causes, means of prevention, and cure of this evil. This new society comes to meet this want by enlisting medical men as members and stimulating new studies and researches from a broader and more scientific point of view. As a medical and hygienic topic the alcohol problem has an intense personal interest, not only to every physician, but to the public generally in every town and city in the country. This interest demands concentrated efforts through the medium of a society to clear away the present confusion, educate public sentiment, and make medical men the final authority in the consideration of the remedial measures for cure and prevention. For this purpose a most urgent appeal is made to all physicians to assist in making this society the medium and authority for the scientific study of the subject. The undersigned secretary will be pleased to give any further information. T. D. Crothers.

IS MILK A FACTOR IN THE SPREAD OF TUBERCULOSIS?

Lansing, Mich., *August* 16, 1904.

To the Editor,

Sir: Referring to the article with this heading in the *Journal* for August 13, 1904, which I have read with much interest, it seems a pity that the author did not carry his investigation one step further and ascertain, in regard to each of the countries which he mentioned, the relative prevalence of tuberculosis in children. Really the study should be limited to the prevalence of tuberculosis in infants; because, as stated in the article, "the majority of the people of the world do not use milk as an article of diet." And, so far as I know, no prominent sanitarian maintains that milk is a very important factor in the causation of tuberculosis of adults, for the very good reason that raw milk is not a very important part of the diet of most adults. But with infants the case is very different; milk is an important part of their food, and tuberculosis is exceptionally prevalent in children at the milk-using period. I know of no other hypothesis than that the tuberculosis of infants is largely caused by the milk that will explain such facts as that during the six years ending with 1896, of the decedents from "consumption" (probably pulmonary tuberculosis) in Michigan, over five per cent. were of children under five years of age, while only about one per cent. were aged five to ten years—in other words, five times as many during the first five years as during the next five year period of age. If the statistics had been compiled so as to show the facts for the first two or three years, and thus more strictly limited to the milk-using ages, I think they would be still more striking. And if we study the statistics of mortality from other forms of tuberculosis than pulmonary, such, for instance, as tuberculous meningitis, there is a remarkable proportion of the deaths at the raw-milk-using ages.

In the article referred to I find nothing which bears upon the real question of milk as a factor in the spread of tuberculosis. It combats a view which I think is not entertained by sanitarians, and offers no evidence on the real question of milk as a factor in the causation of tuberculosis in users of raw milk—that is, in infants.

Henry B. Baker.

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Caddo County, O. T., Physicians Organize Association.—The physicians of Caddo County met at Anadarko on August 11th and organized the Caddo County Doctors' Association, which is to be an auxiliary of the American Medical Association. All members of the territorial association are eligible. The association has forty members and met in that city on August 26th. The officers of the association are: President, Dr. C. R. Hume, of Anadarko; vice-president, Dr. Blair, of Apache; secretary-treasurer, Dr. Longe, of Anadarko. Dr. Sanger, of Dutton, and Dr. Boyd and Dr. Mitchell, of Anadarko, were elected censors.

Proceedings of Societies.

AMERICAN GYNÆCOLOGICAL SOCIETY.

Twenty-ninth Annual Meeting, held in Boston, May 24, 25, and 26, 1904.

(*Continued from page 379.*)

Pyelitis Complicating Pregnancy.—Dr. Edwin B. Cragin, of New York, said the occurrence during pregnancy of a marked rise of temperature, with pain and tenderness on the right side of the abdomen, was always a source of anxiety to the obstetrician. Although several able articles describing the condition had appeared, it was not generally recognized that pyelitis was a not infrequent cause of the symptoms. It might be confounded with appendicitis, typhoid fever, or salpingitis. It occurred almost, if not quite, invariably on the right side. It was due to pressure on the ureter by the gravid uterus plus an infection. This infection was usually descending, and was generally due to the colon bacillus. The urine was acid, and contained at first albumin and perhaps a few casts, soon followed by pus and bacteria. The prognosis was usually good. Induction of labor was seldom indicated. The medical treatment with urotropin or allied drugs, with an ice bag over the kidney, fluid diet, and large draughts of water, was usually sufficient.

A Second Case of Puerperal Eclampsia Successfully Treated by Renal Decapsulation.—Dr. George M. Edebohls, of New York, said the first case, reported to the society a year ago, illustrated the immediate cure by renal decapsulation of puerperal convulsions recurring with great and increasing violence after the birth of the child, a period at which the formerly final resource of forced delivery was, of course, no longer available. In presenting the case the opinion was advanced that resort to renal decapsulation in the undelivered woman suffering from puerperal eclampsia might obviate the necessity of forced delivery. The case now reported illustrated the correctness of that opinion. Renal decapsulation was performed upon a woman pregnant near term, suffering from puerperal eclampsia and almost complete suppression of urine. The convulsions were arrested, the flow of urine was reestablished, and a threatened death from uræmia was averted. Two days after all this had been accomplished labor began spontaneously, and living twins were born. One child died soon after birth. The second child and the mother were in perfect health four months and a half after the termination of pregnancy. Renal decapsulation thus became the rival of forced delivery in cases of puerperal convulsions of renal origin in the undelivered woman. In puerperal convulsions occurring or recurring after delivery it constituted the final resort when all other measures had failed.

Primary Repair of Lacerations of the Cervix Uteri.—There was a "symposium" on this subject. Dr. Edward P. Davis, of Philadelphia, read the first paper. Experience in fifty-three cases had led to the following conclusions: When the patient was not infected and when the tissues had not been subjected to sufficient violence to threaten necrosis, and laceration of the cervix half an inch or more in extent was present, primary closure had been followed in his experience with good results. These cases usually occurred in primiparæ, where resistance in the soft parts occasioned sufficient delay and fatigue to require delivery by forceps. They were also seen in cases of premature labor, whether spontaneous or induced, where the cervix was not physiologically softened for perfect dilatation. They were also found in patients having spontaneous labor, with very strong expulsive efforts and with large children. Naturally those cases in which the mechanism of labor was abnormal through posterior rotation of the occiput, face presentation, or breech presentation predisposed to laceration of the cervix. While primary closure of a laceration of the cervix was indicated under the circumstances just described, certain conditions were necessary for its successful performance. These conditions were outlined. Dr. Davis then described the technics of the operation and the after treatment.

The number of cases under observation was fifty-three. In these, good union occurred in forty-five, fair union in six, no union in seven, while infection developed in none. In 84.9 per cent. the operation was successful; in 11.3 per cent. it was moderately successful, and in 3.8 per cent. it failed. The percentage of infection was *nil.*

He pointed out the objections which were commonly urged against this operation, after which he said that in appropriate cases in his experience immediate closure of the cervix had given no inconvenience to the mother and had been followed by excellent results. The operation was not advised for those who did not practise obstetrics with good surgical technics, and who were not competent to operate on the genital tract.

The Practice of Cervix Suture on the Fifth Day After Delivery.—Dr. Robert L. Dickinson, of Brooklyn, said that no complicated or considerable perineal injury should be repaired at the close of labor, but three to five days later. This had an important bearing on lacerations of the cervix, as this was the ideal time to restore such injuries. The huge œdema, the bruising, and the uncouth distortion of the vaginal portion just after delivery rendered identification of the parts that should be brought together impossible. Therefore, whenever possible, the cervix should be sewed on the fifth day. The frozen sections of the puerperal weeks showed that then, and not till then, shrinkage had occurred. Bleeding no longer obscured the difference between flayed surface and torn structure. Then only were the surroundings of the operation, in the way of illumination, table, time, and a rested personnel possible. This applied particularly to private practice.

The conditions under which the cervix should be repaired at the close of labor were: 1. Bleeding from a firmly contracted uterus, notwithstanding ergot, heat, holding, and the tampon. Here there was a spurting artery. 2, When the cervix injuries were clean cuts of known location as after Dührssen incisions. 3, When, in the immediate repair of a moderate perineal injury, a tear of the cervix was found.

The conditions under which the cervix should be repaired several days after labor were: 1, Exhaustion of the patient or surroundings and conditions which precluded careful work. 2, Extensive injuries, except when these persistently bled or had been cut by the surgeon. 3, When accompanied by complicated or considerable injuries to the pelvic floor.

The author drew attention further to the alterations produced by granulation and contraction in these wounds when left alone, so that the scarred, swollen, everted, or cystic cervix months or years after injury gave uncertain indications for accurate restoration to the original condition.

General Considerations of Laceration of the Cervix Uteri.—Dr. J. M. Baldy, of Philadelphia, stated that as a matter of clinical fact, let the cervix uteri be torn deeply and, if the parts were preserved from infection, the greater part of the tear would heal spontaneously, and the rest of it would remain perfectly healthy, as much so as would the lobe of the ear which had been torn through by the weight and drag of our great-grandmothers' earrings. The lips would remain uninfiltrated, of normal size and thickness, with no eversion and no erosion of the lining mucous membrane. In such a case there would be no untoward symptoms and no bad effects whatever.

There was a tendency among obstetricians to repair these lacerations primarily. The objections to such practice were manifold, and he admitted a prejudice against it. These objections were pointed out. Whatever might be ideal surgery under the exigencies of actual practice, the treatment for recent lacerations of the cervix remained, and he believed would remain, rigid local cleanliness, excepting where there was sufficient hæmorrhage to demand a ligature. Where non-infection could be insured, and where the torn lips were not unnecessarily disturbed by the careless use of the nozzle of a syringe, spontaneous healing of these lacerations might be expected to a greater or less degree, and what tear remained, when Nature was through with her work, would be of a healthy character, would give no future trouble, and would need no surgical interference.

The symptoms of chronic lacerations of the cervix uteri were essentially local in their production and remained so in their manifestations. He had no sympathy with the views which attributed reflex symptoms to these lesions. In uncomplicated cases, where there simply existed a laceration of the cervix uteri, with everted and eroded lips, producing a constant leucorrhœa and a feeling of weight and uneasiness in the pelvis and about the rectum, these so called reflex symptoms did not exist.

There was one belief prevalent which would warrant, nay, demand, a repair of every lacerated cervix—the belief that lacerations of the cervix produced carcinoma. In this belief he took no part, and no one had to his knowledge as yet produced a single scientific fact which would uphold such a theory. In twenty years' work he had not seen a single case of cancer develop in a laceration of the cervix which he had refused to repair.

Intrapelvic Hæmatoma.—Dr. J. Whitridge Williams, of Baltimore, reported a case of intrapelvic hæmatoma following labor, and made some remarks on the treatment of incomplete rupture of the uterus.

The President's Address.—Dr. Edward Reynolds, of Boston, in his presidential address, said, among other things, that the society owed its preeminence along its chosen line less to the words than to the prolonged and daily labor of the eminent men who had composed it in the past, and must owe its future to the life work of the equally able men who were to fill its membership in the coming years.

The use of the printed abstract published beforehand had of late become increasingly prominent in many societies, and in the British Medical Association this use of the abstract had reached its highest terms. It was seldom wise to adopt wholesale the regulations of other organizations. It was usually better to let changes follow a more gradual and natural evolution under the needs of the individual assembly, but the methods of the English association were worth a passing consideration. A fellow of the British Medical Association who desired to present a paper at one of its meetings must put it in the hands of the secretary complete and in the form in which he desired its publication a number of weeks before the meeting, and the communication might be of any length he chose. A paid secretary, a qualified and experienced medical writer, then abstracted each paper in the form and length which he considered best fitted for its public delivery. This official then read the abstracts to the society as they were called from the programme. Such a reading inaugurated each discussion, and the member whose ideas had been thus succinctly set forth before his associates took part in the discussion and closed it. The ideas of individual members by this method were better and more intelligently presented to the society than if they had read their complete papers. In this way the time of the society was economized, full debate was encouraged, and the members had the advantage of publishing to the world papers in which their points were set forth at the fullest length and without time limitation.

Such a method was perhaps too far advanced for our present needs or possibilities, yet it had many advantages, and it seemed worth calling attention to as one toward which the society might well advance. Would it not be wise to give this method or a modification of it a year's trial?

In conclusion, he expressed his thanks for the kindly personal feeling which had actuated the fellows when they elected him president, for which, and for the many personal pleasures which he had enjoyed in the society, he was and would always gladly remain their willing debtor.

(To be concluded.)

Book Notices.

Pestbazillen im Pestserum. Reflexionen über Isotherapie. Von Dr. VON NIESSEN, WIESBADEN. (Mit zwei Lichtdruck-Tafeln). Hamburg: Gebrüder Lüdeking, 1904. (Preis, Mk. 1.50.)

The author has a remarkable talent for discovery. Not only does he find living plague bacilli in antiplague serum, but he also grows pure Klebs-Loeffler cultures from diphtheria antitoxine, and with equal facility isolates the only genuine luetic microbe from the blood of any one who has at any time had syphilis. He naïvely admits that the Royal Institute for Infectious Diseases of Berlin, the Hygienic Institute of Hamburg, and the Institute for the Study of Infectious Diseases of Berne, to which specimens were submitted, have all pronounced against this latest discovery of "Pestbazillen im Pestserum." These adverse reports from respectable authorities might have deterred a less persistent advocate from rushing into print. Dr. von Niessen, however, is convinced that he is fighting over again the old battle of persecuted truth against firmly entrenched error. In support of his plague bacilli he presents some truly wonderful microphotographs which are well fitted to throw dust in the eyes of captious critics. These plates might also serve equally well to illustrate a learned treatise on sun spots or to show the disposition of the troops about Port Arthur in a newspaper war map. The only redeeming feature in this weird production is the unconscious humor pervading it. As the writer narrates his "discoveries" and the obstacles he has had to overcome, the marvelous adventures and enchantments of Don Quixote are recalled.

A Textbook of Operative Surgery. Covering the Surgical Anatomy and Operative Technics involved in the Operations of General Surgery. Written for Students and Practitioners. By WARREN STONE BICKHAM, Phar. M., M. D., Assistant Instructor in Operative Surgery, College of Physicians and Surgeons, New York; Late Visiting Surgeon to Charity Hospital, New Orleans, etc. Second Revised Edition, with 599 Illustrations, entirely original. Philadelphia, New York, London: W. B. Saunders & Co., 1904. Pp. 984. (Price, cloth, $6.00; sheep or half morocco, $7.00.)

That this book has filled a place in surgical literature is shown by the fact that a second edition has been necessary within six months. The author is to be congratulated upon cutting away from the old lines in dealing with the subject of operative surgery. It has always been exceedingly difficult for authors to get away from the old classifications and to present their subjects without retaining the old superstitions that have been handed down from time immemorial. This book appeared in its first edition—and this is true of the second—in a form that could not but appeal to every one who needed a reference book in operative surgery. The anatomy is outlined concisely and yet clearly, and so too are the operative procedures. An unusual feature is the tabulation of the instruments needed in the different operations, and this is especially valuable to those who are not doing surgery exclusively.

We are glad to see that the transfixion method of making flaps in amputations is not advised. This method was undoubtedly valuable in the days before anæsthesia, when it was more important to save time than to be accurate, but this is not true at the present day, and these methods of operating should no longer be employed.

The illustrations throughout the book are far above the average, and have the advantage of being new. They are well drawn and illustrate the text admirably. In the articles on gastroenterostomy—in fact, wherever the stomach is illustrated—the position of the stomach is too transverse. As a matter of fact, the stomach is rarely transverse, and the pylorus lies well below the cardiac opening. This has an important bearing on the position of the opening in making a gastroenterostomy. The McGraw method of operating for gastroenterostomy is not mentioned, which is unfortunate. We are also surprised to note the absence of any reference to the Fowler-Delorme operation for empyema. The book is, however, one of the best manuals of operative surgery that have yet appeared.

Bacteriology of Milk. By HAROLD SWITHINBANK, of the Bacteriological Research Laboratory, Denham, and GEORGE NEWMAN, M. D., F. R. S. E., D. P. H., Medical Officer of Health of the Metropolitan Borough of Finsbury, and Formerly Demonstrator of Bacteriology in King's College, London. With Special Chapters also by Dr. NEWMAN, on the Spread of Disease by Milk and the Control of the Milk Supply. With 72 Illustrations, Maps, Charts, etc. New York: E. P. Dutton & Co., 1903. Pp. xx-605. (Price, $8.00.)

This handsome monograph is an epoch-marking work, and the first really adequate presentation of the bacteriology of milk in all its phases. A broad view of their subject has been taken by the authors, so that the book is far more than a clear statement of technics and of the functions of germ life in the production of milk products; that it is, but in addition there are considered the broader questions of the conveyance of disease by milk, the proper production and handling of milk, and the control of the milk supply.

The chemical composition of milk, the physiology of milk secretion and various conditions that influence its composition, and the modes of contamination and its pathology are considered in the first chapter. Chapter II is devoted to the technical methods, special stress being laid upon the preparation of the culture media. Ravenel's nutrient agar is recommended. Minute directions are given as to drawing the milk in an aseptic manner, preparing stains, counting, etc. Chapter III considers the anaerobic organisms, with methods of isolation and culture; Chapter IV, the bacterial examination of air and water in relation to the milk supply. The bacterial contents of milk, with a comparison of the number of germs found in the milk of London, New York, and St. Petersburg, occupies the fifth chapter. The experiments of Park, of New York, as to the effect of temperature and time are largely quoted. Chapter VI presents the fermentations in milk, and under alcoholic fermentation are considered kumyss and kephir. Economic bacteria in milk and milk products, especially their rôle in the production of butter flavors and different kinds of cheese, are next taken up. The work of Professor Conn and Professor Russell along these lines is constantly referred to.

In their consideration of the pathogenic bacteria in milk the authors express firmly their belief that tuberculosis can be conveyed to human beings by cow's milk, and they give ample evidence in opposition to Koch's position. The acid proof bacilli which may be mistaken for the tubercle bacillus are next taken up, being classified as *(a)* those of other diseases affecting man (lepra, smegma, etc.); *(b)* those occurring in other animals; *(c)* those occurring in butter and milk; and *(d)* the acid-proof bacillus of timothy grass and those of manure and urine. Those of groups *(c)* and *(d)* are studied in detail, as likely to mislead one in the examination of milk. Next are given the studies of various milk-borne epidemics, with especially full records of scarlet fever and typhoid.

The final chapters are, from a medical standpoint, the most practically valuable, as they discuss the control of the milk supply by the State, by private enterprise, including medical bodies, and by the trade. An account is given of the Aylesbury Dairy Company, of London, which furnishes what might be called a certified milk; the Dairy Supply Company, of Copenhagen, which, like the London company, regulates the production and handling of milk so as to keep it up to a certain standard; and the Philadelphia Milk Commission, which gives a certificate to any dairy that complies with its admirable requirements. Full details as to dairy management and the care of the milk are given.

Altogether, the authors are to be congratulated on having produced such an interesting and practical, such a monumental and accurate treatise. The book is handsomely illustrated and most conveniently arranged. We heartily commend it to all who are interested in the modern study of milk or the milk-borne diseases.

BOOK AND MAGAZINE NOTES.

Young's Magazine for September, contains, among many interesting and cleverly written tales, a story called *The Hospital's Beautiful Nurse*, by A. W. Riter, apparently a transparent pseudonym. We regret to say that this tale is hardly up to the average of the magazine, but the author shows promise and may yet write something which will really stir the medical or nursing professions.

From de Rudeval, of Paris, we have received *Guide pratique et formulaire pour les maladies de la bouche et des dents*, which has deservedly reached its third edition. The author, M. G. Viau, seems to lay particular stress on the value of the formulary, but his discussion of ætiology and pathology are equally worthy of praise. A delightful history of dentistry occupies the preface, where the art is traced from its earliest known origin to the present day. We think our readers will be interested in the complex origin of toothache, but will learn with regret that M. Viau considers what we know as Riggs's disease or, as he calls it, expulsive periodontitis, to be incurable. It is, however, amenable to local treatment that will delay its fatal progress, although, according to the author, undoubtedly of systemic origin. The book generally is of great scientific value and we recommend it cordially.

An entertaining and instructive article in the Strand Magazine for September is *The Science of Expression*, by Louis Elkind, M. D. "The science in question" says Dr Elkind, "forms an invaluable aid to the physician; that is as far as the early recognition and correct interpretation of bodily ailments in general, and of those of the brain in particular, are concerned." The article is illustrated in an entertaining and really instructive manner with photographs of clay models reproduced from *Grund formen der Mimik* by Dr. H. Mebber, who designed them for the purpose of aiding art students in the study of anatomy. Enthusiasm, rapture, scorn bitterness, physical or mental exertion, melancholia or violent pain, contempt and detestation, laughter, and grief are portrayed in these models with extraordinary fidelity and the physician who may doubt their educational value will study them at least with interest and amusement.

BOOKS, PAMPHLETS, ETC., RECEIVED.

Transactions of the Grant College Medical Society, Bombay. From February, 1903, to March, 1904.

Report of the Committee on Car Sanitation. By Granville P. Conn, M. D., Chairman. Concord New Hampshire. Columbus, Ohio, 1904: Press of Fred J. Heer.

A Fatal Infection by a Hitherto Undescribed Chromogenic Bacterium: Bacillus Aureus Fœtidus. By Maximilian Herzog, M. D. 1904. No. 13. Department of the Interior. Bureau of Government Laboratories. Biological Laboratory. Manila, 1904: Bureau of Public Printing.

Chirurgie Orthopédique. Par Le Professeur Paul Berger et Le Docteur S. Banzet, Chef du laboratoire de médecine opératoire a la faculté de médecine de Paris. Avec 489 figures dans le texte. Paris, 1904: G. Steinheil, Editeur.

Miscellany.

Eczema Producing Plants.—J. H. Maiden (*Medical Press and Circular*, May 25, 1904), government botanist and director of the Botanical Gardens, Sydney, N. S. W., enumerates the eczema producing plants, with brief descriptions, as follows:

RUTACEÆ.

1. *Phebalium argenteum*, Sm.—This has been called the "Western Australian blister plant," and Dr. Alexander Morrison (*Chemist and Druggist*, July 8, 1899, p. 63) has shown that it blisters the human skin if handled. It has also been suspected of poisoning stock, though no details of this are available. It probably owes its acridity to an essential oil, as do so many plants of the natural order to which it belongs.

MELIACEÆ.

2. *Dysoxylon Richii*, C. D. C. (*D. alliaceum*, Seem.), is found in several Polynesian islands. Dr. Funk, of Apia, Samoa, informs me that the wood "causes sickness," which I understand to be in the nature of skin irritation.

3. *Dysoxylon Muelleri*, Benth. "Red bean." This well-known furniture wood of New South Wales has been accused as follows: Some cabinet-makers report that after working at it for "four or five days they begin to suffer from a virulent form of influenza, accompanied by violent fits of vomiting and bleeding of the nose, while if they cut themselves in handling the timber, blood-poisoning almost inevitably ensues. Remarkable enough, the more seasoned the wood is, the worse it becomes." It appears to me that the language of exaggeration has been here employed. So far as I can glean, the wood, and particularly the sawdust, is exceedingly irritating to some people, and it has induced severe eczema and also irritation of the mucous membrane.

ANACARDIACEÆ.

The following are the best known of the poison-ivies of North America:

4. *Rhus radicans,* Linn. The poison ivy. (*Rhus toxicodendron,* non-Linn.).

5. *Rhus diversiloba,* Torr. and Gray. The poison oak.

6. *Rhus vernix,* Linn. The poison sumac or poison elder.

The best account of these plants known to me is that by V. K. Chesnut (Thirty Poisonous Plants of the United States. *Farmer's Bulletin,* No. 86, of the U. S. Depart. of Agriculture, 1898). *R. radicans* is best known, and has formed the subject of a research, Dr. Franz Pfaff, of Harvard, having shown that the poison is a non-volatile oil. The poison is destroyed, as Pfaff has shown, by an alcoholic solution of acetate of lead (sugar of lead). It is recommended not to use strong alcohol, but alcohol of 50 to 75 per cent. To this the powdered sugar of lead is added until no more will easily dissolve. The milky fluid should then be well rubbed into the affected skin. The itching is at once relieved and the further spread of the eruption is checked. "The remedy has been tried in a large number of cases and has always proved successful."

There is an excellent article on The Poison Ivy—a Dangerous Plant, by the Earl of Annesley, in the *Journal of the Royal Horticultural Society,* and a lengthy digest of it in the *Garden* of March 14, 1903, p. 174. The eczema-producing nature of this plant is well described, a number of striking instances being cited.

In the Botanic Gardens, Sydney, we have a plant of it growing on a stone wall, out of reach of visitors. It occasionally requires pruning and the pruner generally protects himself with leather gloves. In the course of years we have found some men immune to its effects, while others are exceedingly sensitive. In fact, we cannot say, except as the result of experience, whether a man will be affected by it at all.

LEGUMINACEÆ.

7. *Castanospermum australe,* A. Cunn. "The black bean." This well known furniture timber of New South Wales and Queensland has, like the red bean (*Dysoxylon Muelleri*), been accused of injuriously affecting the health of workmen.

MYRTACEÆ.

8. *Eucalyptus maculata,* Hook. The "spotted gum." In parts of Queensland, timber-getters and sawyers who handle spotted gum are sometimes affected with a rash called "spotted gum rash."

9. *Eucalyptus hemiphloia,* Fr. M. "White or gray gum." I have heard, on one occasion, of this timber causing a rash in a man, or at least of a rash being attributed to this timber.

COMPOSITÆ.

10. *Cassinia aculeata.* R. Br. This shrub is sometimes known as "dogwood," and Dr. A. W. Finch Noyes, F. R. C. S., surgeon in charge of the Skin Department of the Melbourne and Alfred Hospitals, read a paper (*Chemist and Druggist of Australasia,* August, 1899, p. 240) before the Medical Society of Victoria on this plant, which is attributed [*sic*] as the cause of eczema.

Details are given of seven cases, several of which suffered only when the dogwood was in flower, and the patient had come in contact with it by brushing through the scrub and other ways. The symptoms indicate that minute particles of some kind, such as pollen from the flowers, or irritating particles from the bark, get between the clothing and the skin, and where there are loose folds of clothing in contact with parts of the skin inflammation is often produced. The eruption is often scaly, with great irritation, and a feeling described in some cases as if fire were running through the part.

11. *Pyrethrum* (*Chrysanthemum*) *parthenium,* Sm. "Fever-few." The late Rev. H. E. Thomson, of Murrumburrah, N. S. W., could never tolerate this plant, which always produced an eczematous swelling on his face. He was fond of gardening, and proximity to this plant always distressed him. He tried to resist the effects, and finally had to remove all such plants from his garden.

PRIMULACEÆ.

12. *Primula obconica,* Hance. Dr. S. A. L. Swan records (*Lancet,* April 25, 1891, p. 960; *Pharm. Journ.,* May 2, 1891, p. 981) two cases which came under his notice in Ireland in which the symptoms produced by handling this plant resembled those of acute eczema or erysipelas. The effect of this plant on human beings is now well recognized by gardeners, and references to it in horticultural literature are frequent; for example, *Gardeners' Chronicle,* April 9, 1892, p. 469. At the same time some people are not affected by it. This is the case, however, with most plants which are irritant.

It is alleged that Dr. Riehl, of Vienna, has ascertained that the irritation is caused by the tiny hairs on the leaves and stalks (*Gardeners' Chronicle,* May 4, 1895, p. 558).

13. *Primula sinensis,* Sabine. Eczema of the hands and face has been caused through handling this primrose. It appears to be less virulent than *P. obconica* (*Gardeners' Chronicle,* January 12, 1895, p. 47; January 26, 1895, p. 116).

EUPHORBIACEÆ.

14. *Excœcaria agallocha,* Linn.

15. *Excœcaria parviflora,* Muell. Arg. These two yield an acrid juice which is more or less volatile, and which, if it gets into the eyes, will produce temporary loss of sight and other local irritation.

CONIFERÆ.

16. *Thuja Douglasii,* Carr. "A curious case of a woman being poisoned by handling the branches and leaves of this tree while gardening is recorded by Neudorffer in the *Centralb. f. innere Medizin.* (*Nouv. Rem.,* 1903, 65; *Pharm. Journ.,* March 21, 1903, p. 422). The symptoms were spasmodic convulsions, dyspnœa, and coma. Other persons appear to have been more or less affected who were working at the same employment. It appears probable, therefore, that the tree, which is cultivated for ornamental purposes, contains some poisonous ingredient, to which some persons are more susceptible than others."

I admit this plant to the present list with doubt. But attention should be widely drawn to such a well known tree in order that we may ascertain what are the real facts of the danger of handling it.

LILIACEÆ.

17. *Hyacinthus orientalis,* Linn.; and varieties. (The common hyacinth of gardens.) "Forms of eczema (Dr. Morris, C. M. G., *Proc. Linn. Soc.,* November 5, 1896) were said to have been produced in persons handling and cleaning these bulbs. Although the fact was familiar to gardeners, the cause did not appear to have been clearly traced. Experiments and observations at the Godrell Laboratory at Kew had shown that both dry and moist scales were capable of producing considerable irritation in certain cases when applied directly to the skin. There was little doubt that the rhaphides were the prime agents. These needle-shaped crystals (composed of oxalate of lime) varied from one hundredth to one two hundredth of an inch in length, and were arranged in close bundles, easily dispersed by rubbing the dry scales. In the growing plants they were doubtless protective, as snails, for instance, avoided hyacinth bulbs, but attacked others growing close by. Roman hyacinths (var. *albulus*) were understood to cause greater irritation than other varieties.

Dr. D. H. Scott described some experiments which he had tried, tending to confirm the conclusion that the irritation of the skin produced by contact with the bulb scales of hyacinths is due immediately to puncture by the numerous rhaphides.

AROIDEÆ.

18. *Richardia æthiopica,* Spreng. "Lily of the Nile" (of gardeners); the common "arum lily" of Australian gardens. Mr. J. Y. Johnson (*Proc. Linn. Soc.,* January 21, 1897), of Funchal, Madeira, shows that this plant is, like hyacinthus, responsible for a form of eczema.

The laundresses of Funchal had tried to utilize the starch obtainable from the corms, but complained of the irritation in the hands produced by it, which, on examination, was found to result from the presence of numerous needle-shaped rhaphides.

The Dignity of Dr. O. W. Holmes.—The New York *Sun,* quoting the *Boston Herald,* states that Dr. Oliver Wendell Holmes was not only the autocrat of the breakfast table, but was also an autocrat of himself, as was humorously illustrated in his four-foot-long shoe horn, which is now one of the prize relics of famous people in the possession of Dr. John Dixwell, of West Cedar Street, Boston.

The autocrat, though a little man physically, was big in dignity—and philosophy. The bending down to put on a low shoe, by the use of the ordinary horn, seemed to him to smack of loutishness; and, besides, was there not in the act a needless—an uneconomic—waste of red corpuscles?

Accordingly, he had a common steel shoe horn affixed to a long canelike handle; and ever after gave an exhibition of a gentleman putting on his boots in conformity with the most exacting laws of deportment and hygiene.

Sir William Macgregor, the new governor of Newfoundland, is one of the few British colonial administrators who can append M. D. to their K. C. M. G. He can also add LL. D. to it, twice over, for that honor has been conferred upon him both by Edinburgh and by Aberdeen.

Official News.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the week ending August 19. 1904:

Place.	Date.	Cases.	Deaths.
Smallpox—United States.			
Dist. of Columbia—Washington	Aug. 6-13	1	
Illinois—Chicago	Aug. 6-13	5	
Louisiana—New Orleans	Aug. 6-13	9	
Maine—Madawaska region	July 31-Aug. 6	11	
Massachusetts—North Adams	Aug. 6-13	5	1
Michigan—Grand Rapids	Aug. 6-13	1	
Missouri—St. Louis	Aug. 6-13	1	
Nebraska—Omaha	Aug. 6-13	1	
New York—New York	Aug. 6-13		1
Ohio—Cincinnati	July 19-Aug. 5	2	
Washington—Tacoma	July 23-30	1	
Wisconsin—Milwaukee	Aug. 6-13	3	
Smallpox—Insular.			
Philippine Islands—Manila	June 4-11	3	2
Smallpox—Foreign.			
Brazil—Bahia	July 8-23		15
Brazil—Pernambuco	July 1-15		23
Brazil—Rio de Janeiro	July 3-17	442	217
Formosa	June 1-30	3	
France—Paris	July 23-30	11	2
Germany—Berlin	July 9-16	8	
Great Britain—Edinburgh	July 16-30	4	
Great Britain—Glasgow	July 22-Aug. 5	1	
Great Britain—Leeds	July 31-Aug. 6	1	
Great Britain—Liverpool	July 31-Aug. 6	1	1
Great Britain—London	July 16-30	13	3
Great Britain—Manchester	July 23-30	4	1
Gt. Britain—Newcastle-on-Tyne	July 16-30	13	2
Great Britain—South Shields	July 16-23	1	
India—Bombay	July 12-19		6
India—Calcutta	July 2-9	1	
India—Karachi	July 10-17	3	
Mexico—City of Mexico	July 24-31	3	
Russia—Moscow	July 16-23	10	5
Russia—St. Petersburg	July 16-23	3	1
Russia—Warsaw	July 2-9		16
Turkey—Alexandretta	July 16-23		2
Turkey—Beirut	July 23-30	Present.	
Turkey—Constantinople	July 24-31		1
Turkey—Smyrna	June 26-July 3		1
Turkey—Smyrna	July 17-24		1
Yellow Fever.			
Brazil—Rio de Janeiro	July 3-17	4	1
Colombia—Barranquilla	July 24-30		1
Mexico—Coatzacoalcos	July 21-Aug. 6	4	2
Mexico—Vera Cruz	July 21-Aug. 6	2	
Panama—Ancon	Aug. 1	1	
Panama—Panama	June 25-Aug. 1	1	
Venezuela—Maracaibo	July 17-24	1	1
West Indies—Curacao	July 29-Aug. 3	1	1
Cholera.			
India—Calcutta	July 2-9		9
Persia—Teheran	June 9-16	Epidemic.	
Turkey in Asia	July 12	227	213
Plague—Insular.			
Hawaii—Honolulu	Aug. 15	1	
Plague—Foreign.			
Africa—Cape Colony	July 2-9	1	
Australia—Brisbane	June 11-18	1	
Australia—Maryborough	June 11-18	1	
Australia—Perth	June 26-July 4	2	1
Australia—Sydney	June 11-18	1	1
Brazil—Bahia	June 8-23		7
Brazil—Rio de Janeiro	July 10-17	7	4
China—Hongkong	June 18-25	44	40
Egypt	July 9-16	14	8
Formosa	June 1-30	440	341
Formosa	July 9-16		126
India—Bombay	July 12-19		58
India—Calcutta	July 2-9		18
India—Karachi	July 10-17	1	1
Peru—Lima	July 2-9	4	2

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending August 13, 1904:

APPEL, DANIEL M., Major and Deputy Surgeon General. Arrived at San Francisco, Cal., from Manila. P. I., on the *Sheridan.*

COX, WALTER, First Lieutenant and Assistant Surgeon. Leave of absence extended to include August 27, 1904.

DAVIS, WILLIAM R.. First Lieutenant and Assistant Surgeon. Relieved from duty on *Sheridan* and to report to the Military Secretary for further orders.

DeWitt, Wallace, First Lieutenant and Assistant Surgeon. Granted one month and fifteen days' leave on or about September 20, 1904.

Gregory, Junius C., First Lieutenant and Assistant Surgeon. Relieved from duty at United States General Hospital, Presidio of San Francisco, Cal., and assigned to duty as Surgeon on the *Sheridan*, during voyage to Manila, and, on arrival, to report to Commanding General, Philippines Division, for assignment to duty.

Kilbourne, H. S., Major and Deputy Surgeon General. Retired from active service, August 14, 1904.

Lynch, Charles, Captain and Assistant Surgeon. Detailed as General Staff Officer, Army Manœuvres to be held at Manassas, Va., and will report there August 27, 1904.

Lyster, William J. L., First Lieutenant and Assistant Surgeon. Granted thirty days' leave, with permission to apply for thirty days' extension.

Noble, R. E., First Lieutenant and Assistant Surgeon. Relieved from United States General Hospital, Washington Barracks, D. C., and ordered to United States General Hospital, Presidio of San Francisco, Cal., for duty.

Perley, Harry O., Major and Deputy Surgeon General. Promoted to Lieutenant-Colonel and Deputy Surgeon General, United States Army, to rank from August 14, 1904. Relieved from duty at Fort Logan, Colo., and ordered to West Point, N. Y.

Purviance, William E., Major and Surgeon. Promoted Major and Surgeon, United States Army, August 14, 1904.

Raymond, Thomas U., Major and Surgeon. Relieved from further duty at the Louisiana Purchase Exposition, St. Louis, Mo., and ordered to Fort Assinniboine, Mont., for duty.

Rhoades, Thomas L., First Lieutenant and Assistant Surgeon. Relieved from duty as attending surgeon and examiner of recruits, Philadelphia, Pa., and ordered to West Point, N. Y., for duty.

Snyder, Henry D., Major and Surgeon. Reports in addition to duty as surgeon, Fort Sam Houston, Texas, he is in charge of C. S. O., Department of Texas.

Webb, W. D., First Lieutenant and Assistant Surgeon. Relieved from duty at West Point, N. Y., and ordered to Fort Huachuca, Arizona, for duty.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending August 20, 1904:

Farenholt, A., Surgeon. Detached from the *Concord* and ordered to the *Monterey*.

Fitts, H. B., Surgeon. Detached from the *Pensacola* and granted leave for thirty days.

Heiner, R. G., Assistant Surgeon. Detached from the Naval Hospital, New York, and ordered to the *Southery*.

Lowndes, C. H. T. Detached from the *Chesapeake* and ordered to the Naval Academy.

Means, V. C. B., Surgeon. Detached from the *Monterey* and ordered to the *San Francisco*.

Births, Marriages, and Deaths.

Married.

Baker—Hodgson.—In Elbow Lake, Minnesota, on Friday, August 12th, Dr. A. C. Baker and Miss Kathryn Hodgson.

Laessle—Mueller.—In Philadelphia, Pennsylvania, on Wednesday, August 17th, Dr. Henry A. Laessle and Miss Agnes H. Mueller.

Levitt—Levy.—In Newark, New Jersey, on Sunday, August 21st, Dr. Marcus J. Levitt and Miss Miriam Levy.

Pelle—Meredith.—In Louisville, Kentucky, on Wednesday, August 10th, Dr. A. F. Pelle and Miss Nancy May Meredith.

Reynolds — McFalls.—In Gouverneur, N. Y., on Wednesday, August 3rd, Dr. Stanley Reynolds and Miss Alida McFalls.

White—Bowen. In Plainfield, New Jersey, on Thursday, September 1st, Dr. Franklin Warren White and Miss Ethel Plummer Bowen.

Died.

Ambler.—In Detroit, Michigan, on Monday, August 8th, Dr. Frank B. Ambler, in the thirty-eighth year of his age.

Banks.—In Liverpool, England, on Wednesday, August 10th, Sir William Mitchell Banks, M. D., F. R. C. S., in the sixty-third year of his age.

Blaine.—In Clifton Springs, N. Y., on Saturday, August 13th, Dr. M. D. Blaine.

Boteler.—In Middletown, Maryland, on Sunday, August 14th, Dr. William E. Boteler, in the eighty-second year of his age.

Chandler.—In Milwaukee, Wisconsin, on Friday, August 12th, Dr. Ralph Chandler, in the forty-second year of his age.

Chapin.—In Saybrook, Illinois, on Saturday, August 20th, Dr. Samuel L. Chapin.

Detwiler.—In Manheim, Pennsylvania, on Tuesday, August 16th, Dr. Isaac Detwiler.

DeVerter.—In Waterman, Indiana, on Saturday, August 13th, Dr. George T. DeVerter, in the sixty-fifth year of his age.

Dodge.—In Rouse's Point, N. Y., on Saturday, August 13th, Dr. Lindhurst Dodge, in the sixty-fourth year of his age.

Havlicek.—In Cleveland, Ohio, on Tuesday, August 9th, Dr. F. J. Havlicek.

Hay.—In Washington, D. C., on Thursday, August 11th, Dr. George W. Hay, in the fifty-eighth year of his age.

Henry.—In Madisonville, Kentucky, on Wednesday, August 10th, Dr. W. H. Henry, in the seventy-eighth year of his age.

Heston.—In Newtown, Pennsylvania, on Monday, August 15th, Dr. George T. Heston, in the seventy-ninth year of his age.

Leavell.—In Jackson, Mississippi, on Sunday, August 14th, Dr. Zachary Taylor Leavell, in the fifty-seventh year of his age.

McCarroll.—In Morristown, New Jersey, on Wednesday, August 17th, Dr. Henry B. McCarroll, in the forty-ninth year of his age.

Monroe.—In Montvale, Massachusetts, on Sunday, August 14th, Dr. F. LeBaron Monroe, in the seventieth year of his age.

Montgomery.—In Meadville, Pennsylvania, on Friday, August 12th, Dr. James H. Montgomery, in the fifty-third year of his age.

Moxley.—In Jefferson, N. Y., on Monday, August 8th, Dr. Albert D. Moxley, in the forty-eighth year of his age.

Mumford—In Macon, Georgia, on Saturday, August 13th, Dr. W. E. Mumford, in the fifty-first year of his age.

Nott.—In Portland, Maine, on Thursday, August 18th, Dr. Frederick J. Nott, in the fifty-third year of his age.

Parker.—In New York, on Saturday, August 13th, Dr. John T. Parker, in the fifty-eighth year of his age.

Payne.—In Berkeley, on Tuesday, August 9th, Dr. Frank Howard Payne, in the fifty-fifth year of his age.

Rice.—In Sandusky, Ohio, on Friday, August 13th, Dr. James Browne Rice, in the thirty-first year of his age.

Spore.—In St. Louis, Missouri, on Wednesday, August 10th, Dr. William D. Spore, in the sixty-fourth year of his age.

Taylor.—In Wells, Maine, on Wednesday, August 10th, Dr. Esther Woodman Taylor, in the seventy-first year of her age.

Watkins.—In Natchez, Mississippi, on Friday, August 12th, Dr. B. D. Watkins.

Wellington.—In Mansfield, Massachusetts, on Friday, August 19th, Dr. Claude R. Wellington.

Winston.—In Clarksville, Tennessee, on Monday, August 8th, Dr. D. Y. Winston.

Zacharias.—In Cumberland, Maryland, on Tuesday, August 16th, Dr. John F. Zacharias, in the sixty-fourth year of his age.

New York Medical Journal
AND
Philadelphia Medical Journal.

A Weekly Review of Medicine

VOL. LXXX, NO. 10. SATURDAY, SEPTEMBER 3, 1904 WHOLE NO. 1344.

Lectures and Addresses.

HOW MAY THE PUBLIC SCHOOL BE HELPFUL IN THE PREVENTION OF TUBERCULOSIS?*

By S. A. KNOPF, M. D.,

NEW YORK,

VICE-PRESIDENT OF THE AMERICAN ACADEMY OF MEDICINE; ASSOCIATE DIRECTOR OF THE CLINIC FOR PULMONARY DISEASES OF THE HEALTH DEPARTMENT; VISITING PHYSICIAN TO THE RIVERSIDE SANATORIUM FOR CONSUMPTIVES OF THE CITY OF NEW YORK; CONSULTING PHYSICIAN TO SANATORIUM GABRIELS, GABRIELS, N. Y., THE CONSUMPTION HOSPITAL OF WEST MOUNTAIN, SCRANTON, PA., ETC.

Mr. President and Fellows of the Academy:

A little over a year ago I had the honor to deliver a lecture on a subject similar to the present one, before the Teachers' College of the Columbia University of the city of New York. It was entitled The Duties of the School Teacher in the Combat of Tuberculosis as a Disease of the Masses. My audience was composed of graduates and undergraduates in pædagogy, and I was more than pleased and gratified to see the deep interest manifested in the subject by the young men and women present. A few weeks later my lecture appeared in *American Medicine* and has since been reprinted in the *Journal of Education* and in the *Teachers' Sanitary Bulletin,* and the Department of the Interior, Office of Indian Affairs, has asked me for permission to reprint it for distribution in the Indian schools. This shows that the interest in the subject is spreading, and the time for the public school to take up the question of how to be helpful in the prevention of tuberculosis seems eminently ripe. This I may plead as an excuse for bringing the subject before the American Academy of Medicine as a medicosociological question well worth our consideration. It is my sincere hope that the discussion of this paper by the academicians who have made school hygiene, preventive medicine, and tuberculosis a special study will bring out many valuable points of interest to us and of interest to the cause.

To be as concise as possible, I have divided my address into four parts, namely, the duties of the school board, the duties of the superintendent, the duties of the school teacher, and those of the school physician, relating to the prevention of tuberculosis.

The school board, or board of education, as it is called in some localities, should, in choosing a site for a school, bear in mind that, whenever possible, a somewhat elevated region, where the streets are wide and the surounding houses not too high and not too close together, and where the traffic is not too heavy, should be selected for building a public school. About the construction of a modern and model school house much could be said. The essentials of such construction are well known to all sanitarians and up to date architects. In relation to the prevention of tuberculosis I would suggest only a few points. Where the site or locality does not permit of having a large playground, a roof garden which can be covered in winter is absolutely necessary. Instead of our American windows, which can only be opened to one half of their extent, I should wish to see French windows in every school house, or in the wall sliding windows or those that turn on a pivot, all of which permit twice the amount of foul air to go out and of good air to come in that our ordinary windows do. Heating and general ventilation of school rooms should, of course, be of the most improved kind. The walls and woodwork of school rooms should be plain, to make the accumulation of dust virtually impossible and the cleaning easy. All corners should be rounded off, and the walls painted. The interior equipment—that is to say, the school furniture, benches, and desks—should be so arranged that they can be easily moved or folded together, so that a thorough cleaning of the floors is made possible after each daily session. It goes without saying that the drinking cup should be replaced by the hygienic drinking fountain, which makes the use of a cup unnecessary, and thus eliminates one method of transmission of microbic disease.

Every public school should have a well equipped gymnasium and a swimming tank with constantly running fresh or salt water, warmed to a suitable temperature in winter. Each pupil should be given the opportunity to bathe several times during the week. To learn to swim should be made obligatory and every class should be supervised by a competent swimming master. Leaving aside the great hygienic gain to be derived from such an installation, especially when the pupils are recruited from homes where bathrooms are rare and where regular bathing is considered superfluous, the swimming lessons will be of value to every boy and girl, and in case of such disaster as the recent Slocum tragedy there will be a much smaller loss of life. There is hardly a college in existence in America where the gymnasium and the swimming tank do not form an important part of the equipments, and a college without them would surely suffer in prestige. The public school where the children of the masses receive their education should not be behind the private college in its equipments.

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* Address delivered before the American Academy of Medicine, at Atlantic City, June, 1904.

I am convinced not only that the public school which has a well equipped swimming establishment and which makes regular bathing and instruction in swimming obligatory for every pupil will have fewer cases of infectious and contagious diseases, particularly scrofula and tuberculosis, but that the intellectual and moral status of its pupils will also be higher.

The duties of the superintendent of a public school in the prevention of tuberculosis are manifold. In arranging the curriculum he should bear in mind never to push the intellectual training to the detriment of the bodily development or physical welfare of the children in his school. There has been, and is yet, altogether too much overtaxing of the brain and the nervous system of our boys and girls in public and also in private schools. Our gynæcologists and nerve specialists have given us enough illustrations of the detrimental effects of the overtaxing and overstraining of the mind and the nervous system of young girls at the age of their development into womanhood. Those of us who have given tuberculosis a somewhat closer study also know that it is often at the period of entering puberty that the predisposed individual becomes most susceptible to the invasion of the bacillus, particularly when additional strain is put upon the physical or mental system. This holds good of both sexes. A judiciously divided curriculum, intercepted with gymnastics, swimming, and as much outdoor instruction as possible, would seem to me a most important factor in the prevention, not only of tuberculosis, but of all indoor diseases and even nervous troubles.

By outdoor instruction I mean not only botanizing tours and geological excursions, but also outdoor singing and outdoor recitation. In my textbook on tuberculosis,[1] as well as in my article on that subject in the *Twentieth Century Practice of Medicine*,[2] I quoted Barth, of Köslin, who had made a careful study of the effects of singing on the action of the lungs, on diseases of the heart, on the pulmonary circulation, on the blood, the vocal apparatus, the upper air passages, the ear, the general health, the development of the chest, and on the activity of the digestive organs. As a result of his studies he came to the conclusion that singing should be considered one of the exercises most conducive to health. I am willing to go even further and say that outdoor singing and outdoor recitation, when the weather is neither too windy nor too cold, is a most excellent means of preventing the development of pulmonary diseases. You all have heard of the numerous cases of open air speakers, such as political campaigners, evangelists, etc., having developed their respiratory capacities and strengthened their lungs as a result of their peculiar profession. Some even profess to have been cured of consumption as a result of their outdoor speaking. The German military authorities, who have the reputation for instituting all exercises which tend to prevent disease and invigorate the soldiers, have of late much encouraged singing during the marching of the troops.

To every class in the public school should be given opportunity in fairly good weather to have recitation and singing at least once a day in the playground, adjoining garden, or roof garden. Breathing exercises should, of course, be instituted at least for a few minutes at a time for all classes. This should be done either in the open air or when the windows are wide open, and a number of times each day. The simple breathing exercises which I recommend as a prevention of pulmonary diseases, I have published and illustrated in my books, as well as in various articles, and also in my popular essay on tuberculosis,[3] and I don't feel that it will be necessary to describe them again here. The selection of rational textbooks on physiology and general hygiene must be left to the good judgment of the board of education and the superintendent.

The duties of the superintendent and those of the school teacher are, of course, interdependent. The former makes out and supervises the curriculum, the latter carries it out. The lessons in physiology and hygiene must be adapted to the age and understanding of the pupils. The school teacher should, of course, be familiar with all the practical and feasible methods in vogue in regard to the prevention of tuberculosis as an infectious and communicable disease. The source of infection from indiscriminate expectoration, from coughing and sneezing in people's faces, from kissing on the mouth, and other unhygienic habits can be taught in simple words to the children of even the primary classes. A good method to impress these simple rules on school children, and thus protect them from contracting tuberculosis during school life, is to have printed leaflets given to every child. These leaflets should contain the do's and do nots which are the alphabet in the prevention of tuberculosis in kindergartens, private and public schools, and college. I have compiled these simple rules, and with your permission will read them:

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[1] *Pulmonary Tuberculosis, its Modern Prophylaxis and the Treatment in Special Institutions and at Home.* P. Blakiston's Son & Co., Philadelphia, page 86.

[2] *Tuberculosis, Diagnosis, Prognosis, Prophylaxis, and Treatment. Twentieth Century Practice of Medicine*, Vol. XX, page 230.

[3] *Tuberculosis as a Disease of the Masses, and How to Combat it.* M. Firestack, New York.

Do not spit, except in a spittoon or a piece of cloth or a handkerchief used for that purpose alone. On your return home have the cloth burned by your mother, or the handkerchief put in water until ready for the wash.
Never spit on a slate, floor, sidewalk, or playground.
Do not put your fingers into your mouth.
Do not pick your nose or wipe it on your hand or sleeve.
Do not wet your fingers in your mouth when turning the leaves of books.
Do not put pencils into your mouth or wet them with your lips.
Do not hold money in your mouth.
Do not put pins into your mouth.
Do not put anything into your mouth, except food and drink.
Do not swap apple cores, candy, chewing gum, half-eaten food, whistles, bean blowers, or anything that is put in the mouth.
Peel or wash your fruit before eating it.
Never cough or sneeze in a person's face. Turn your face to one side, and hold your hand or handkerchief before your mouth.
Keep your face and hands and finger nails clean; wash your hands with soap and water before each meal.
When you don't feel well, have cut yourself, or have been hurt by others, do not be afraid to report to the teacher.

These leaflets should be read and reread by the pupils and explained and commented upon by the teacher. Children should be not only allowed, but rather urged, to take these leaflets home and show them to their parents. Thus, these little ones may become missionaries in homes where cleanly habits and domestic hygiene have been heretofore unknown.

In schools where slate and lead pencils are given to the children and collected after school hours, these articles should be disinfected before they are again distributed to the pupils. Not only the spread of tuberculosis, but far more contagious diseases, such as measles, diphtheria, and scarlet fever, may be prevented among school children by this simple precaution. The custom in vogue in some schools of having every child use a suitable envelope, so as always to have the same pencil, while preferable to no precaution at all, is, in my opinion, not nearly so safe as a thorough disinfection.

Another method of teaching school children the prevention of tuberculosis has been inaugurated in France in a most ingenious way. My distinguished teacher, Professor Letulle, suggested to the Minister of Education of France that the covering of the books used by school children should serve as a means of instructing the pupils concerning the prevention of tuberculosis. He himself wrote the two pages of instruction for that purpose. The outside cover represents the exterior of a sanatorium, and the text is illustrated by a number of pictures. Permit me to give you here the translation of the subjects which are treated in a most concise and comprehensible way on these two pages:

" The air we breathe and the respiratory organs.

" Tuberculosis decimates humanity.

" Tuberculosis is contagious.

" Tuberculosis and its microbe.

" Robert Koch, the discoverer of the microbe of tuberculosis (consumption).

" Tuberculous infection from man to animal and from animal to man.

" Tuberculosis can be prevented.

" Sure way to prevent consumption.

" Never use strong drinks.

" Tuberculosis can be cured.

" Tuberculosis is a social disease."

An important point in the prevention of the disease under consideration among school children is, to my mind, that the school teacher should be familiar with the objective signs and symptoms of tuberculosis and the characteristics of a person predisposed to consumption. Thus, for example, if the child is a mouth breather, owing to vegetation in the retronasopharynx, the teacher should call the attention of the school physician or parents to the child's condition, as predisposing to nasal and bronchial catarrhs, and possibly pulmonary complications. The school teacher should be familiar with the meaning of such objective symptoms, as a persistent cough, feverish face, becoming easily tired, or at times an increased excitability, and on the discovery of these symptoms take such steps as are indicated. As is well known, tuberculosis of the bones and joints is relatively and absolutely more frequent in children than pulmonary complications. Lameness or easy tiring of arms or legs is often the beginning symptom of bone tuberculosis.

A slight pressure in the region of the joints causes a sudden severe pain. If the spinal column is affected, the symptoms will depend upon the location of the vertebra which is attacked by the disease. For example, if this should be in the region of the neck, there will be difficulty in swallowing, in breathing, or a frequent dry cough. If any of the vertebræ in the region of the chest is affected, a feeling of constriction like a tight band around the chest will be observed, accompanied often by digestive troubles. If the seat of the disease is the lower portion of the spinal column, there will be irritation of the bladder and lower bowels, an inclination to much urinating, and radiating pains toward the hips.

If any such symptoms are discovered by the school teacher, the school physicians and the parents should be notified.

Scrofulous children are found particularly frequently in the districts of the poor, and the teacher should know that scrofulosis is only a lighter type of tuberculosis, but it is tuberculosis, and that it can be successfully treated and cured by fresh air, sunshine, good food, and improving the general hygienic environments. The scrofulous child is usually pale, with flabby skin and muscles. The glands around the neck are swollen, and skin disease, sore eyes, and running ears are frequent symptoms. The little patient usually manifests a phlegmatic condition, but we might also find some that are nervous and irritable. The latter often have a particularly white, delicate skin, which makes the veins visible. Fever may be observed in some scrofulous children. In view of the happily very curable nature of scrofulous affections, the importance of the early recognition and of the timely and judicious treatment is, of course, self-evident.

In speaking of scrofulous and tuberculous children of the poor I must revert once more to the duties of the school board; for what can the teacher or the superintendent do with the underfed children of the poor attending our public schools? Breathing exercises will not supplement their lack of food, but, if anything, they will increase the appetite of the pupil, and a cracker and an apple are not enough for a growing boy or girl and altogether too little to make their cheeks red. I would therefore suggest to the board of education a philanthropical enterprise in which the generous and goodhearted people of every city would most likely gladly join. It may thus become possible to provide these half-starved little ones with a luncheon of a few meat sandwiches and one or two glasses of good milk, and I am convinced that fewer will develop tuberculosis and scrofulosis, and they will do better work at school and at home.

To avoid a pauperizing tendency, a few pennies may be charged for these lunches. This practice is in vogue in the city of Boston, Mass., and works most satisfactorily. After a few weeks of such persistent administration of good luncheons the previously underfed children improve in appearance and often gain from two to three pounds in weight.

Lastly, we come to the duties of the school physician. They have been already pointed out in part in speaking of the duties of the school teacher in referring to the physician all suspected pupils for careful examination. A second duty of the school physician should be the constant supervision of the sanitary condition of the school buildings; regular visits to the gymnasium and the swimming school; and, lastly, the most important function of all, the periodical examination of the chests of all pupils, teachers, and employees of the school. The weeding out of all such individuals as might constitute a source of infection, or those whose treatment becomes an imperative necessity, the advice to be given to parents of a tuberculous child, will make the school physician a most important factor in the solution of the tuberculosis problem.

It goes without saying that the school physician, who must devote so much time to this duty in order to do it faithfully, should receive ample remuneration for his services.

It is with great satisfaction that I saw among the news items of the *Medical Record*, of April 30th that the San Francisco Board of Health had inaugurated the systematic examination of school children. To the honor of the profession let me add that the first examination was made by a voluntary corps of fifty physicians.

In the prevention of tuberculosis in childhood I have always looked upon the suppression of child labor as one of the *prima facie* necessities. While it is with a sense of deep humiliation that we must acknowledge that this curse to childhood is not yet entirely done away with in all our States, it is gratifying to note the ever increasing progress toward its suppression.

However, there is one kind of child labor which the law can only reach with difficulty, except as it has the cooperation of the school teacher and the school physician. I refer to those cases where cruel or thoughtless parents impose upon their often delicate children the fulfilment of household duties or the performance of manual labor which would task the strength of a grown person. The timid child will probably never complain, but when the teacher or school physician suspects that the paleness, the stooping shoulders, and the tired, sad look are the result of excessive manual labors imposed upon the child by parents or guardians, it is his duty to investigate and interfere. All of you who have worked among the poor will remember the pale-faced little mothers taking care of two or three younger sisters or brothers and carrying the baby for hours in their frail arms. Even the widowed father has no right to impose such burdens on his little daughter. With tact and judicious advice, or with the help philanthropic organizations offer to parents, the conditions can sometimes be remedied; but I know from experience that occasions arise when the majesty of the law alone will protect the child from being used as a little beast of burden, made a physical wreck before the age of puberty, or neglected and treated so that it will become a sure candidate for consumption in its early teens.

What shall be done with a tuberculous child whose presence in the public school may be a danger to his comrades, besides making his own recovery much more difficult? Municipalities and philanthropists should, after the example of the people in Europe, create seaside or country sanatoria where the tuberculous children may not only have the best possible chance of becoming cured, but also receive the necessary education. In France, Germany, Italy, and Holland all the sanatoria for tuberculous and scrofulous children are in reality school sanatoria, and the intellectual development of the children goes hand in hand with their restoration to health. The unfortunate school teacher, who often through overwork and close confinement has contracted the disease, which in the adult is often more readily recognized, and as a result usually has to resign, might find here an opportunity to earn his or her living anew, at least during the convalescent stage. The curative results in the sanatoria for scrofulous and tuberculous children are simply surprising; in some of them they have been as high as 70 and 80 per cent. of absolute cures.

In conclusion, let me express the wish that American municipalities and philanthropists may soon realize that public school sanatoria for the treatment of tuberculous and scrofulous children are an urgent necessity in nearly all our large American cities. They will have to serve as places for cure of the thousands of tuberculous children, many of whom, without this, will ultimately develop the more severe type of the disease, and will become burdens, if not to their parents, to the community at large. With ample provisions for the cure and with the fulfilment of the duties of the school boards, superintendents, teachers, school physicians, and parents, it is my firm belief that the public school can be made one of the most important factors in the prevention of tuberculosis as a disease of the masses.

16 West Ninety-fifth Street.

Original Communications.

A STUDY OF THE VAGUS REFLEX IN THREE HUNDRED AND EIGHTY INDIVIDUALS: A NEW PHYSICAL AND PROGNOSTIC SIGN IN PULMONARY DISEASE.

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The effects of mechanical pressure on the vagi were known to the ancients, but were attributed by them to compression of the carotid arteries. That they are not due to compression of these vessels is shown by the experience that the latter have been frequently compressed in man and in animals without producing such symptoms as result from vagus irritation. In the *Practitioner* (Vol. IV, 1870, p. 194) the eminent Dr. Augustus Waller, who had previously accepted the carotid compression theory, concluded that it was a case of *post hoc ergo propter hoc*, and hence discarded it. He stated that a close physiological examination revealed the flaw in this apparently well supported theory, and that while experimenting on his own vagus and sympathetic he could bring about symptoms similar to those which were obtained by electrical irritation of the vagi in animals. These effects he described as follows: One of the first symptoms was a sensation of want of air, followed by deep and laborious breathing. The heart's action was accelerated at first and then retarded, and might be accompanied by a sense of sinking over the præcordial region. Continued pressure occasioned a deep seated benumbing sensation in the head, as if one was about losing consciousness. Gastric symptoms, amounting to nausea and even vomiting, might arise. Lassitude, languor, fatigue, lowness of spirits, and want of repose would remain for an hour or two, but would gradually wear away. It will be seen from what follows that Dr. Waller's description of symptoms caused by vagus pressure tallies very closely with those observed by the author in this investigation.

About twelve years ago I observed that pain, and even sharp pain, could be readily elicited by applying pressure with the finger or thumb over the vagi in the neck of consumptives; and in my work* on chest diseases I record the histories of 124 cases of pulmonary disease (chiefly phthisis) in which the vagi were found in a state of disintegration after death in the following named disorders: Direct injury, 53; alcoholism, 9; syphilis, 14; diphtheria, 20; measles, 2; diabetes, 2; multiple neuritis, 7; locomotor ataxia, 3; multiple sclerosis, 9; and epilepsy, 5. Since the time mentioned I have studied the effects of pressure on the vagus, not with a view of bringing about unconsciousness or anæsthesia, but principally for the purpose of discovering (1) whether such pressure produces more pain on one than on the other side of the neck; (2) whether such pressure causes dizzinesss, swooning, cough, pain in other parts of the body, or any other symptom; (3) whether pulmonary consumption exists in the subject in which such disturbances following pressure on the vagi are found, and, if so, on which side of the body; (4) whether a family history of pulmonary consumption can be traced in such cases; (5) whether, when such vagus disturbances are found in the absence of a personal history of consumption, there is present or not a family history of this disease, and to what degree; and (6) whether in the absence of such vagus disturbance there is present or absent either a personal or a family history of this disease.

The practical objects of this inquiry being then defined, it remains to be stated that the most accessible and exposed portion of the vagus lies in the neck immediately behind the pulsating carotid arteries (see Fig.) and is readily traced through the latter landmark from the angle of the lower jaw to near the clavicle. The nerve is readily compressed by standing or sitting before the patient and laying the thumb over this vessel, or better slightly behind it, and resting the other finger on the nape of the neck and gently pressing the nerve backward against the hard part below. Care must be exercised here, for the best vagus results are obtained by bringing to bear the hardest pressure directly behind the carotids. The reflex that is called forth by this procedure varies in different individuals. In some the sensation is the same on both sides, while in others there is a marked difference between the two. If the sensation is the same on both sides and is not greater than what would be produced ordinarily or naturally by the degree of pressure that is applied, the vagi may be called normal; but if the reaction which is called forth on both sides is even and out of correspondence to the degree of pressure that is applied, the vagus reflex may be said to exist on both sides of the neck. If, for example, a slight pressure on the vagus on either side will cause the subject to become pale and speechless and drop down before you unconscious and have a slight convulsive contraction of the shoulder and arm muscles, as the writer has witnessed on a number of occasions, it may be said that the vagus reflex is present to a marked degree on both sides of the neck. In most cases, however, the same degree of pressure will call forth only a painful sensation on one side, which may or may not be accompanied by pain in the eye, ear, head, shoulder, arm, or leg on the same side, while the nerve on the other side appears to be normal. This may be called a one sided reflex. In addition to the symptoms just named, vagus pressure may produce dyspnœa, dizziness, sweating, retardation of the pulse and heart, weakness of the extremities, etc. The vagus reflex is, therefore, essentially a sensory reflex, accompanied by cerebral, respiratory, cardiac, arterial, and motor manifestations.

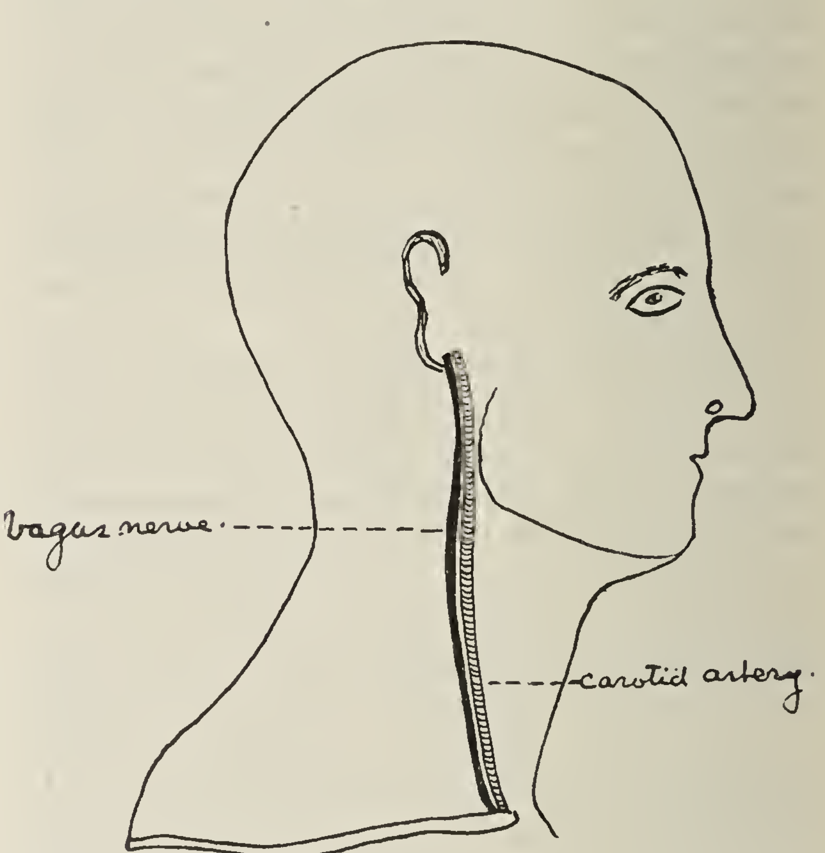

Diagram of head and neck, showing the anatomical relationship of the vagus to the carotid artery in the neck.

This paper consists of a study of the vagus reflex in 380 individuals, and is divided into two parts, the first being a consideration of the behavior of the vagi under pressure in 138, or 38 per cent., of persons suffering from pulmonary consumption; and a similar study of the vagi in 242, or 63 per cent., of healthy people in which the vagus reflex was present or absent in accordance with certain specified conditions.

Now, of the whole number of consumptive cases (138) the vagus reflex and the lung disease were located on the right side in 79, or 57.20 per cent.; in 48, or 34.10 per cent., the vagus reflex and the lung disease existed on the left side; in 8, or 5.30 per cent., the vagus reflex and the lung disease existed on both sides; while in 4, or 3.00 per cent., the vagus reflex and the lung disease were located on opposite sides of the body. This demonstrates that in 134, or 97 per cent., of these cases, the vagus reflex and the pulmonary affection were situated on corresponding sides, while in 4, or 3.00 per cent., these conditions were found on opposite sides. Of these cases there were 109, or 79.50 per cent., who had a family history of consumption, and additionally 3 with a family history of epilepsy; 4 with one of alcoholism, and 1 with one of asthma.

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* *Consumption, Pneumonia, and their Allies.* E. B. Treat & Co., New York, 1901.

The collateral or concurrent symptoms which vagus pressure called forth in these cases were as follows: dizziness in 8, dyspnœa and dizziness in 4, cough in 3, ear pain in 2, shoulder pain in 4, and sweating in 3, a total of 24, or 16.98 per cent.

It is of interest, moreover, to say that in the treatment of consumption the author has frequently observed that in those patients who recovered or improved the vagus reflex disappeared or became greatly ameliorated.

From the above facts we may conclude that the vagus reflex and the pulmonary affection are practically always found on the same side of the body—this relationship holding true in about 97 per cent. of cases; that a family history of pulmonary consumption obtains in 79 per cent., and one of epilepsy, alcoholism, or asthma in 5 per cent. more; that concurrent symptoms show themselves in about 17 per cent. of these cases; and that effective treatment of the disease will obliterate or improve the vagus reflex.

Of the 242 healthy persons who were examined there were 117, or 49 per cent., who presented either a vagus reflex or a family history of consumption, and out of these 117 cases there were 94, or 80 per cent., in which a vagus reflex (54 times on the right and 40 times on the left side) and a family history of consumption coexisted in the same individual; 14, or 12.38 per cent., in which a family history of consumption was unaccompanied by a vagus reflex; 9, or 7.96 per cent., in which the vagus reflex was present without a family history of consumption; while in 125, or about 50 per cent. of these (242), there was complete absence of a family history of consumption and vagus reflex.

It must be stated in this connection that out of the 14 cases in which a family history of consumption was found without a vagus reflex, the former were distributed as follows: in 5 it was one of the parents or grandparents, in 4 a brother or a sister, in 1 two sisters, and in 4 an uncle or aunt, who had died of consumption. Taking into account the fact, therefore, that in 4 the family history is comprised in the death of an uncle, or an aunt, or a grandparent, it is apparent that we have to reckon only with 10 cases, or 8.84 per cent., in which exact family histories without vagus reflexes were found. This view is confirmed by the observation frequently made in this investigation that the intensity of the vagus reaction is largely governed by the proximity and the number of the family members who died of phthisis. Thus, in a number of instances contained in my collection the vagus reflex is most pronounced when either or both parents, either parent and a sister or a brother, or an uncle or an aunt and a parent died of consumption; and least marked when the family burden consists of the death of a single member like an uncle, aunt, or grandparent. This seems to be especially true when the individual is over thirty-five years old. For in these 14 cases of family history without vagus reflex, 10 were over and 4 were under thirty-five years of age, and the average age was found to be forty-one years; while in 89 cases of family history with coexistent vagus reflex the average age was thirty-five years—showing that after the latter period the vagus reflex may possibly disappear, and be present less frequently than previously, and thus conform to the general impression that the tendency to consumption declines with advancing age, which is also in accord with what follows.

Another point of interest develops in this connection. On comparing the average ages, weight, and stature of that class of healthy persons which presents neither a family history of consumption nor a vagus reflex, with that class of persons which is likewise healthy, but which possesses both a family history of consumption and a vagus reflex, it is found that above the age of thirty-five years the average weight and stature are practically the same in both classes, viz.: weight, 159 pounds, stature 5 feet, 7 inches—the standard being 145 pounds, thus showing that both are 14 pounds above the latter point. It appears, however, that below the age of thirty-five years there is quite a difference in this respect, since the average stature for both classes is found to be 5 feet, 8 inches—the standard weight for this elevation being 148 pounds. But the average weight of those without a family history and a vagus reflex is 151 pounds, or 3 pounds above the standard, while those with a family history and a vagus reflex only weigh 146 pounds, or 2 pounds below the standard, a difference of five pounds.

The results obtained from this limited number of cases run parallel to those worked out in an allied field a few years ago by Dr. A. B. Bisbee, of Montpelier, Vt., in which he clearly demonstrated that the weight of those dying from consumption was less than that of those dying from other causes. He gives the statistics of 3,548 deaths, of which 619 were caused by consumption, and 2,929 by other diseases. The average stature of those who died from consumption was 5 feet 8.33 inches, and their weight was 143.4 pounds; while the average stature of those who died of other causes was 5 feet 7.67 inches and their average weight 157.6 pounds—showing that the consumptives averaged .66 inch taller and 14.2 pounds lighter than those who were not consumptive.

While the difference in the average weight between those who have neither family history nor vagus reflex and those who possess both is not so great as it is in Dr. Bisbee's collection of consumptives and non-consumptives, yet it is quite probable that the same causes which bring about a diminution in the weight of consumptives are the same as those which diverge the weight of those who are burdened with a family history of consumption and a vagus reflex from those who are not.

It may be added here that in the 9 cases in which a vagus reflex was found without a family history of consumption, there were 3 with an alcoholic and 2 with an insane ancestry.

The collateral subjective symptoms which accompanied vagus pressure in these 117 cases were as follows: Local twitching of neck and shoulder muscles and temporary unconsciousness, 2; dizziness or swooning, 13; difficulty of breathing, 3; cough, 4; ear pain, 3; shoulder pain, 4; arm pain, 4; eye pain, 5; fulness in the head, 3; numbness and sweating in the arm and leg, 1; total, 42, or 36.76 per cent. The ear, shoulder, arm, and eye pain, the fulness in the head, the numbness and sweating in the arm and leg were confined to the same side of the body on which the vagus reflex was located.

From an analysis of the symptoms and conditions as they are developed by the vagus reflex in the 380 cases which form the groundwork of this study, I think we may safely draw the following conclusions:

(1) That there is sufficient pathological evidence for believing that the integrity of the vagi is always impaired in pulmonary consumption.

(2) That the vagus reflex is universally present in active pulmonary consumption, and in the vast majority of cases of this character it is situated on the same side of the body as that on which the lung affection is found.

(3) That the vagus reflex is present in about 80 per cent. of healthy people who have a family history of consumption.

(4) That in healthy people without a family history of consumption the vagus reflex is universally absent, provided there does not exist a family or personal taint of alcoholism, insanity, or some other neurosis.

(5) That in the development of the vagus reflex, dizziness, dyspnœa, coughing, sweating, and other symptoms are produced at the same time in about one sixth of the number of consumptives; while the same is true in about one third of the number of healthy people whose family history is burdened with consumption.

(6) That the intensity of the vagus reflex, or, in other words, the number of symptoms that accompany its development, other than those which manifest themselves locally in the neck, seems to be dependent on the number of deaths that have occurred in the families of consumptives and in those of healthy people.

(7) That there is an appreciable difference in the degree of vulnerability to consumption among healthy people below the age of 35 years, betweeen those who have a family history of consumption and a vagus reflex ,and those who do not have the same, and that after the above given age period this difference is eliminated.

(8) That the vagus reflex is a valuable sign in the diagnosis and prognosis of pulmonary consumption, for, by projecting the family history of the potential consumptive into the present, it not only foreshadows that which is not otherwise evident to the senses, but becomes an important factor in the prophylaxis and treatment of this disease.

Now, why is the vagus reflex always present in pulmonary consumption? Why are the two almost invariably found on the same side of the body? Why not on opposite sides, or why found together at all, unless there is an intimate relationship between the lung disease and the vagus, as is demonstrated by abundant pathological evidence? Why is the vagus reflex present in about 80 per cent. of persons who are healthy, but who have a family history of consumption behind them? Why is this reflex absent in every healthy person whose family history is free from consumption, insanity, alcoholism, or other neuroses? Why can we, through the medium of this reflex, separate persons with a family history of consumption from those without the same, if there is not a close affiliation between the reflex and the family history? Does this reflex represent that which is commonly known as the consumptive predisposition? According to its indications may not healthy persons with well marked reflexes be regarded as potential consumptives and be thus warned far in advance of the development of any tangible sign of disease in the pulmonary organs, or anywhere else, and have their interests safeguarded by proper medical advice and supervision? Is not this opinion amply substantiated by the observation frequently made by the author that the vagus reflex in consumptives vanishes or improves *pari passu* with the recovery or improvement of the patient? And is it not also true that a vagus reflex or an absence of the same is a most probable test of freedom from a personal and a family history of consumption?

1829 Spruce Street.

CHRONIC SPLENIC ANÆMIA; REPORT AND PRESENTATION OF A CASE.*

By E. F. CONYNGHAM, M. D.,
PHILIPSBURG, MONT.

In presenting this patient to you I would state that he is an example of a peculiar symptom-complex, of an at present unknown ætiology, not often seen, frequently mistaken or confused with other anæmias, and of an infective, or rather toxic, character.

This condition has been described under several names: Splenic lymphadenoma, splenic cachexia, chronic splenic anæmia, splenic pseudoleucæmia, primitive splenomegaly, and Banti's disease. Cabot, in the last edition of his valuable work on the clinical examination of the blood, objects to the term "splenic anæmia," but does not himself offer anything better than "anæmia with enlarged spleen." This title I have never seen applied to the disease elsewhere, and I object to it, because, first, splenic enlargement is far from uncommon, particularly in the anæmias of infancy and childhood. Secondly, such a title is not sufficiently descriptive of the disease meant. Thirdly, it is altogether too unwieldly and cumbersome. Therefore, I think it is better to accept the terms chronic splenic anæmia or primitive splenomegaly until a better one is offered.

This malady was first described by Woillez, in 1856, and in what is possibly its terminal form by Banti, an Italian physician, in 1882. To him is due the credit of directing the attention of the medical fraternity to some of its peculiarities; since then, Bruhl, Potain, and Samuel West, in Europe, and Woodworth, Cabot, Sippy, and Osler, in America, have written on the subject, with many notes and descriptions of cases scattered through medical journals by various practitioners.

It is to Osler principally that we are indebted for analyzing, separating, and classifying a number of cases, and placing them in a separate division with a distinct definition.

To quote him, "it is a chronic affection, probably an intoxication of unknown origin, characterized by a progressive enlargement of the spleen which cannot be correlated with any known cause, as malaria, leucæmia, syphilis, or cirrhosis of the liver; it is an anæmia of a secondary (chlorotic) type, with a marked tendency to hæmorrhage, particularly from the stomach, and in some cases a terminal stage with cirrhosis of the liver, jaundice, and ascites."

It appears that males are mostly affected—in fourteen cases tabulated by Osler, one was a female—and young adults preferably. In the literature accessible to me, fifty-nine years has been the greatest age and nine years the youngest age, each patient having had the disease for two years. In my case the patient was seven years old when the splenic enlargement was discovered. It is hard to arrive at a conclusion as to the time when the disease first became apparent; most of the recorders give the age of the patient at the time they first observe the case. A number have, however, stated how long a time has elapsed since the splenic enlargement was first noticed. The age at which the case is recorded appears to average about thirty-two years.

The ætiology is unknown. From the accounts given of research in this direction it has been thorough; the resources of chemistry and bacteriology appear to have been utilized without result, and while it is not impossible for microorganisms to produce the disease, it will probably be found that some toxine originating between the stomach and colon, and *very likely in the duodenum alone*, is the cause.

Records of autopsies in which splenic anæmia was the direct cause of death are few. Sippy states "that as a rule the cadaver presents a high grade of emaciation, in others the fat is well preserved, skin subicteric, subcutaneous connective tissues of dependent parts saturated with serum;" in short, the gross pathological appearances we should expect in severe cases of anæmia. Microscopically, the interlobular connective tissue of the liver is increased to a greater or less extent; if to a greater degree, we should have strong grounds for believing that an interstitial hepatitis existed; and on the amount of connective tissue increase will depend the integrity of shape of the hepatic cells.

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* Presented to the Montana State Medical Association, June 18, 1903.

The spleen normally measures 12 by 8 by 3 c. m., and weighs about 200 grammes; in Sippy's case it weighed 2,350 gm. In this malady the shape appears fairly well preserved, and the organ only slightly harder than usual. Microscopically, the reticular tissue of the spleen is changed into an irregular fibrous formation with compression atrophy of the Malpighian corpuscles.

The symptoms in the early stages are very indefinite; lassitude, dyspnœa, palpitation, mental torpor, headache of a light character, with eyes easily fatigued, skin anæmic and of a dusky tinge, with sometimes mottling, possibly mild hæmorrhages from the nose, occasionally large, buccal mucous membranes pallid, intestinal regularity disturbed, sometimes a sensation of fulness and weight in the abdomen; pain occurs in some cases, attributable to perisplenitis. When the case has progressed for a long time the patient or his physician discovers the tumor, and then the cardinal points of the disease differentiating it from other forms of anæmia are present: First, enlarged spleen; second, absence of enlarged lymphatic glands; third, leucopenia. This latter is constant, although Banti records one case with leucocytosis. This was found on the day pneumonia appeared. Osler records one with a leucocyte count of 12,497, and Cabot one with 15,800; these exceptions, if the disease was better understood, could very likely be easily explained. I find the average of a large number of recorded counts, including the two high ones given above, to be 3,000; the red average is 3,400,000 and the hæmoglobin averages 37 per cent.

There are only three forms of anæmia with which this may be confounded, viz., splenic leucæmia, the anæmia infantum, splenoleucæmia of von Jaksch, and the malarial cachexia; in the first a little attention to the history and course of the disease will suffice to differentiate; in the second the cause can be traced to rickets or syphilis, and generally improves under appropriate treatment. In a country subject to malaria, ague cake plus anæmia—that is to say, the malarial cachexia—might observe the case if chills were absent. The examination of the blood and the discovery of the parasite would quickly clear it up. It might be mistaken for echinococcus, a neoplasm, or an enlarged left hepatic lobe, and has on one occasion been diagnosticated as a uterine growth; in this case a portion of the spleen had descended into the pelvis and burrowed into the broad ligament. On bimanual palpation it appeared attached to the uterus; a cœliotomy corrected the mistake.

Having given this description of the disease, which is necessarily short with the present paucity of literature on the subject, I will give you a history of the patient and attempt to show that it comes inside Osler's definition on all points.

CASE.—B. C., aged twelve years; born in Minnesota of American-German parentage. Height, 1.41 m.; weight, seventy-eight and one half pounds; family history, traced back three generations, negative.

When an infant, as a bottle-fed baby, had gastric and intestinal derangements, which lasted a long time; succeeding that period had trouble with his eyes, in which pus was discharged for several months, and before they were well had a skin eruption of a scaly or scabby nature, from which pus exuded in some places. While being treated for the latter, he was given two teaspoonfuls of Fowler's solution, through the mistake of a drug clerk. The drug was vomited and the child was very sick for over a week. To use his father's expression, "He has not been well since he was born." When about five or six years old, he had several attacks of epistaxis, none severe. When about seven years old, had severe pains in the abdomen; several physicians were consulted and one found the enlarged spleen. No blood examination was made, although the child was at that time very pallid.

On September 27, 1902, the patient was first seen by me. He had had two bad attacks of hæmatemesis and melæna a short time before. Color very anæmic; lips palate, tongue, and gums pallid; tongue heavily coated, of an ashy-gray color and slimy in appearance; breath intensely fœtid; eyes dull and stupid; answers questions very slowly, is very deliberate, or rather lymphatic, in his movements. Appetite voracious, with short intervals of loss. Sleeps from 8 p. m. to 7 a. m., and well; seldom wakes at night; tires easily, and becomes breathless on exertion. Bowels loose and have been so for some time. No appearance of enlarged glands in any region.

Spleen extends downward to within .06 c. m. of left pubic spine in supine posture and about .08 cm. to right of median line; upward, has extended so far that the apex beat of the heart is under the fourth rib when sitting, the heart itself being almost horizontal and its pulsations very evident in the second and third interspaces; no murmurs, hæmic or otherwise. The splenic notch is to be plainly felt a short distance above the umbilicus, which is protuberant, possibly from internal pressure. Some atelectasis at base of left lung. Pulse small, hard, and slightly irregular, 88 a minute; respirations, 19; temperature, 99.1° F. Red corpuscles, 3,648,000; whites, 3,300 hæmoglobin, 40 per cent.

In January, 1903, a right scrotal hernia made its appearance; this was reduced and a truss applied.

In the first week in March I saw the patient again and was informed that "the truss was too strong and made him sore inside and a little sick." The hernia had disappeared.

On March 31st I saw the patient again. He had a small encysted right hydrocele. This was tapped under the anæsthetic influence of Schleich's No. 2 solution and 14 c. c. of light amber colored fluid were removed; the specific gravity was 1.014, and it contained ½ per cent. albumin. I made another count to-day; it was extremely hard to get blood from the ear with even a small scalpel thrust in ¼ inch. Reds, 2,875,000; whites, 2,800; hæmoglobin about 30 per cent. Circumference at navel, 81 cm.

April 28th, pulse, 77; temperature, 99.6° F. Splenic notch exactly at umbilicus; no pain; feels very weak; appetite continues good; bowels regular. White count, 2,400.

June 14th. Tongue, palate, gums, and lips still pallid, facial color improved; pulse, 62, small and no body to it; temperature, 99.5° F. Hæmoglobin about 40 per cent. No count taken, as patient had eaten. Spleen diminished now to about middle line and apparently adherent to anterior abdominal wall. Lower end distant .085 c. m. from pubic spine; liver cannot be found below costal border, but dulness exists at fifth right rib. Heart sounds notably accentuated; apex beat is now in fourth interspace, sound not transmitted to axilla. Left lung base still affected with atelectasis. Hydrocele has returned to a minor extent.

After the patient had been examined by the members present, Dr. Rudolph Horsky (Helena) stated that the case conformed to one he had seen when East a little time before, but that this was the first he had heard of in the Northwest.

In closing this case I may remark that I have said nothing about treatment, as it involved ætiology, pathology, and the physiology of the spleen. This patient was treated formerly with iron preparations, which seemed to predispose to gastric hæmorrhage and consequently iron was stopped; then with arsenic, under which there seemed a progressive loss of strength and vitality. This was changed in April and directions given to administer three times in the week small doses of sodium phosphate, with bone marrow after each meal, and that the child be not exposed to the sudden changes of temperature that are present in the little valley in which he lives (the temperature sometimes falls from 20° to 25° F. in two hours); that his body be protected by good flannels, and all sweet foods and articles of diet subject to fermentation be withdrawn. Since then there has been a slight but gradual improvement.

In reply to a question, on one occasion there were found two apparently nucleated reds and occasionally a deformed cell was seen; the leúcocytes apparently consisted of multiforminuclears.

PRURITUS ANI.*

By A. B. COOKE, A. M., M. D.,

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In spite of the wide prevalence of the affection and the vast amount of literature pertaining to it, pruritus remains the subject of no little confusion and contention, one of the few familiar disorders which refuses to lend itself to exact classification. The difficulty consists in the different standpoints from which it is considered, and the conflicting views which result may readily be divided into two classes: 1st, That pruritus is a separate and distinct disease; 2nd, that it is merely the symptom of some other disease. Dermatologists, as a class, support the first mentioned theory, though their teaching is by no means uniform upon the subject.

Van Harlingen [1] says: "Pruritus is a functional cutaneous affection manifesting itself solely by the sensation of itching;" and, again, "Pruritus, it must be remembered, is a distinct affection."

Shoemaker [2] adopts the name "paræsthesia" and says: "Paræsthesia is a distinct affection, not to be confounded with prurigo, or with any other of the diseases with which abnormal sensations of the skin are associated."

Crocker [3] gives this concise definition: "A functional defect of innervation in which itching is the only direct symptom." While this language is somewhat evasive, the implication is plain that the author regards the complaint as a separate entity, and this interpretation is certainly borne out by the context.

Dühring[4] says: "Pruritus stands forth a prominent and distinct affection."

Hyde [5] defines his position on the question by saying: "Hebra was the first to recognize the independent character of the disease here considered."

Jackson [6] regards it as "a functional neurosis of the skin."

Mracek [7] evades the issue, simply stating: "It is our purpose, however, to consider here the cases (of skin diseases) which belong strictly to the neurotic class."

Malcolm Morris [8] says "Pruritus is itching without any visible cause to assign for it. It is a true sensory neurosis due to some functional disorder of the related nerves independently of any source of irritation on the surface."

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* Read before the Middle Tennessee Medical Association, Murfreesboro, November 20, 1903.

[1] *Handbook of Skin Diseases*, third editon, pp, 469 and 470.

[2] *Diseases of Skin*, fourth edition, p. 696.

[3] *Diseases of the Skin*, third edition, p. 717.

[4] *Practical Treatise on Diseases of Skin*, third edition, p. 579

[5] *Diseases of the Skin*, fourth edition, p. 696.

[6] *Diseases of the Skin*, fourth edition, p. 447.

[7] *Diseases of the Skin*, p. 118.

[8] *Diseases of the Skin*, new edition, p. 64.

On the contrary, Walker[9] advocates the symptom theory in most emphatic and unequivocal terms. "Pruritus must be carefully distinguished from prurigo, a distinct affection. The former is not a disease, but a symptom." And again: "In the pathological classification of disease (Unna's), which I propose to follow as closely as possible, there is no place for a purely sensory disturbance."

Almost without exception the authors who treat of the affection as encountered in special localities (pruritus ani, pruritus vulvæ, etc.) and who raise the issue at all, array themselves, with Walker, upon the symptom side of the question. Mathews[10] is a notable exception. In a somewhat protracted discussion of the subject he argues that while the great majority of cases of pruritus ani are of local origin, instances are met with in which it must be regarded as a distinct and independent disease. As opposed to this teaching, Tuttle[11] opens his chapter on the subject with the emphatic sentence: "Pruritus ani is a symptom and not a disease."

The word, pruritus, means itching neither more nor less, and unlike many terms with which our nomenclature is burdened, it fits with singular aptness the condition to which it is applied. But it is scarcely conceivable that a mere perverted sensation could be seriously considered a disease of itself. Strictly speaking, a disease is a pathological process, a material fact. Itching is a purely subjective phenomenon, having no existence apart from the intelligence which recognizes it. With far more reason it might be said in a given case that the pain or the abnormal temperature or the delirium constitutes the disease. But while, from an etymological standpoint, no other conclusion is possible, it is yet desirable to retain the term. To the patient, at least, the itching is the biggest fact connected with his case; and, furthermore, there are very generally certain structural changes involving the affected area in these cases sufficiently pronounced to call for a special designation. Let us employ the term, however, with the clear understanding that we do so as a matter of convenience; that we recognize the associated structural change as secondary and incidental, and that we refuse to countenance the absurd idea that a symptom can under any circumstances be properly considered a disease.

Pruritus ani is met with chiefly in adult life, though it is occasionally encountered even in very young subjects, when thread-worms are the usual cause. Men are more frequently the victims than women; and, while social conditions furnish no barriers, the complaint shows a particular predilection for the higher walks of life, where the seductions of the table are habitually yielded to. Those who lead sedentary lives are most often affected and, as a class, the corpulent rather than the thin. Climate and season apparently exert no influences, further than that warm weather promotes perspiration and so may be considered an indirect factor. As a personal observation it may be said that blondes are more often the subjects of the complaint than brunettes. This is probably to be accounted for by the more delicate texture of their skin and their consequent greater susceptibility. It is worthy of remark in this connection that pruritus is rarely associated with hysteria and other recognized neuroses.

Ætiology.—Pruritus ani is one of those well sounding expressions which serve the very useful purpose of hiding a large amount of professional ignorance. It is an easy matter and creates a good impression to meet the complaints of a tortured patient with a wise look and the glib assurance that he has "pruritus ani." If the expression were literally translated for him, however, the effect would scarcely be so pleasing. As well tell a patient who seeks relief from a headache that he has cephalalgia. The thing of first importance is to recognize that pruritus always *has* a cause, and then make every effort to discover it. This is not always a simple matter. But, speaking for myself, in the rare cases which baffle the most painstaking investigation, I still refuse to call the itching the disease itself.

The causes of pruritus ani may be classified under three heads, constitutional, local, and reflex.

Constitutional Causes.—Almost every known disease has at some time been assigned as a cause of this complaint. In most cases this has been due rather to the desperation of the seeker for a cause than to any tangible connection. Yet it is true that pruritus has been found associated with certain general disturbances so frequently as to warrant regarding them as real causative agents in many cases. For the most part these are digestive derangements, though diabetes, nephritis, gout, rheumatism, and diseases of the liver should also be mentioned. Of these, fermentation in the intestinal tract deserves special notice. It has been my observation that this is one of the most frequent of all causes. In fact, so often have I noted the association that I now, almost as a matter of routine, place these patients on remedies looking to the correction of such condition, even when I find abundant local pathology to account for the trouble.

Certain articles of diet often seem to act as exciting causes in persons predisposed to pruritus. Shell fish, strawberries, highly seasoned food, alcoholic beverages, tea, coffee, and excessive smoking, have all been known to light up attacks.

Constipation should also be noted as a frequent cause, both for the reason that it incites or maintains local congestion, and because it is so often a prominent expression of liver and digestive disturbance.

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[9] *Introduction to Diseases of the Skin*, p. 25.

[10] *Diseases of Rectum*, second edition, p. 494 *et seq.*

[11] *Diseases of Anus, Rectum, and Pelvic Colon*, p. 568.

It is of the first importance to remember that the primary cause of pruritus is often constitutional and that any local pathology found may be purely secondary or incidental. Failure to recognize such possibly with respect to every case is doubtless the true explanation of the lamentable frequency with which the affection is pronounced incurable.

Local Causes.—The local causes of pruritus ani, broadly speaking, may be grouped under two heads, congestion and pathological discharges. Now, when we remember that practically every disease of the rectum and anus is attended by one or the other, oftentimes, indeed, by both, of these conditions, it will at once be understood that in seeking for the cause in a given case no local pathology is to be reckoned inconsiderable.

In addition to these well-known disases, threadworms deserve to be mentioned as a cause of pruritus ani, acting perhaps not so much by their movements, as has been taught, but rather indirectly, through the catarrhal inflammation which they excite. In young patients especially the possibility of this cause should always be borne in mind.

Certain true diseases of the skin which are marked by the symptom of itching may be encountered in the circumanal region. These present much the same characteristics here as in other localities, but are to be carefully distinguished from the purely secondary changes in the skin so often seen in chronic cases of pruritus ani as the result of scratching.

Reflex Causes.—When thorough investigation of the general and local conditions fails to clear up the ætiology of a case, the fact must not be lost sight of that pruritus ani may be a purely reflex phenomenon. Here the generative and urinary organs are most often at fault, as might be inferred from their contiguity to the rectum, but more especially from their intimate anatomical relationship with it. For the most part, the diseases which give rise to the reflex expression are chronic in character, such as phimosis, urethral stricture, hypertrophied prostate, seminal vesiculitis, etc., and in the female long standing ovarian and uterine irritations.

In discussing reflex causes Tuttle[12] states that gallstones may produce pruritus ani. To my mind this is highly improbable. That gallstones and pruritus ani are often associated cannot be gainsaid. But the more reasonable explanation seems to me to consist in the direct vascular connection between the parts involved and the congestion of the portal vein and its radicles occasioned by the liver disease.

Physical Characteristics.—In the beginning there are no changes to mark the presence of pruritus. The appearance of the parts usually seen in old cases and with singular uniformity described by authors as characteristic, is properly attributable to the damage inflicted by the patient in scratching, *not* to the pruritus itself. This fact calls for special emphasis, as much of the confusion which exists upon the subject is unquestionably due to lack of discrimination on this point. The peculiar local condition referred to is rarely absent in cases of long standing, though the form and extent of the changes vary within wide limits. It may consist of a narrow zone of thickened integument encircling the anus, dead white in color from loss of the natural pigment—the so called parchment skin. In some cases the area affected is so extensive as to involve the scrotum or vulva and perinæum anteriorly, and reach out well over the buttocks and sacrum. This surface may be moist or dry and in many instances presents numerous excoriations, causing it to resemble very closely some form of eczema. In differentiating the condition from the various skin diseases the history of the case furnishes the key, though apart from the history the peculiar appearance once recognized is easy of identification.

Symptoms.—The symptom which inaugurates the complaint and remains its most constant and conspicuous feature throughout its entire course is *itching.* In fact it may be said that this is the only constant symptom of the condition. In the beginning the itching is not different in type from that which characterizes a like involvement of the cutaneous nerves in other parts and due to visible causes. Later on, certain well marked differences may be noticed, chief among which are the unremittent, everlasting persistence of the sensation, the fact that it is always greatly intensified at night when the patient gets warm in bed, and the further fact that scratching affords little or no relief. The local injury which the desperation of the patient leads him to inflict upon the parts is sometimes considerable. In such cases burning, smarting, stinging and even real pain become added symptoms, with the result that the itching is no less and the suffering far more.

Secondary involvement of the general health is often noted in these cases. Days of perpetual torment and nights of broken sleep and rest soon make their impress upon the strongest constitutions, not to mention narcotic drugs which all too often enter into the story. Neurasthenia, melancholia, and even insanity have been known to result.

Diagnosis.—In the whole field of proctology this is the only ailment in which a trustworthy diagnosis may be founded on the statements of the patient. But, as the cure of the patient rather than the name of the disease is the ultimate aim of diagnosis, careful, thorough physical examination is as necessary with reference to pruritus ani as in any other class of cases. The parts are easy of access and the case virtually diagnosticates itself on simple inspection. But here we seek knowledge of the cause rather than the condition. Remembering the many and diverse factors which may enter into the ætiology, our examination should include, not only the entire rectum, but the adjacent pelvic structures and every several organ and function in the economy. For reasons already mentioned the kidneys and digestive apparatus should receive special attention.

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[12] *Op. cit.*, p. 574.

Prognosis.—The prognosis of a case will depend as much upon the phvsician as upon the condition he has to treat, perhaps more so. If he will take the broad sane view that pruritis ani is not a disease, but merely a local manifestation of a pathology which can be determined, and act accordingly, no case is ever hopeless. Still in view of the essentially chronic nature of the trouble, prudence would dictate that in any given case the prognosis be a guarded one.

Treatment.—The view of pruritus ani which is here advocated, namely, that it is a symptom and not an essential disease, logically means with reference to treatment that the first requisite is removal of the cause. Not infrequently this is an extremely difficult matter, taxing both the patience and the ability of the physician to the limit. But I would emphasize the fact that relief afforded in any other way must necessarily be palliative only, and that the last estate of the victim is likely to be worse than the first. Perhaps the most frequent error in connection with the treatment consists in mistaking the secondary skin changes in the parts involved either for the affection itself or at least for the cause of it. This is a perfectly natural mistake, particularly in old cases. But, however radical the treatment applied on such hypothesis, it can result at most in nothing more than temporary benefit.

Another frequent error, and likewise a perfectly natural one, is to regard any rectal pathology discovered as the *necessary* cause of the pruritus. The rectal lesion may be the result of the same process which produced the pruritus. It has been my experience more than once to have the pruritus persist in as bad form as ever after radical operation for internal hæmorrhoids, or the most thorough treatment of other local disease. Others have reported similar experiences.

These preliminary remarks, Mr. President and gentlemen, are made to lend emphasis to the statement that success in the treatment of pruritus ani depends very largely upon a proper conception of its true nature. Here, as with respect to other diseases, the important thing to remember is that we have to do with a *patient* rather than with any single symptom or local condition.

In the management of a case of pruritus ani, then, our effort must be to restore the patient to as nearly normal a condition as possible at the same time that we endeavor to promote his comfort by local measures directed to the itching parts. The first named object demands not only the correction of all sources of irritation in the rectum and neighboring organs and the proper treatment of any constitutional disease found present, but at the same time, and seemingly just as important, the correction of faulty habits of life, regulation of the diet, the promotion of rest and sleep, the judicious admistration of tonics, etc., and the inspiring of hope.

No attempt can here be made to enumerate the *local measures* which have been advocated for the relief of pruritus ani. The resources of therapeutics have been sadly taxed by the " favorite " remedies of many authors. It is not my purpose to add to the list. While I may truthfully claim never to have treated a case which I did not relieve and, so far as I know to the contrary, cure, I have no routine method of procedure. The local condition varies so greatly in different cases that I always endeavor to follow the more rational plan of adapting the remedial mesures to the special indications. These may call for sedatives, emollients, astringents, stimulants, and not infrequently caustics, according to the condition present. It is not at all rare to meet with cases in which, notwithstanding that all direct or exciting causes have been removed, the itching still persists, due to the irritation kept up by the secondary changes in the skin itself. When a normal condition of the parts cannot be restored by other means in such cases, destruction or removal of the diseased area is the only resource. For this purpose Mathews recommends a radical dissection. Certainly such a procedure would be justifiable only in the rarest cases. The general anæsthetic, prolonged confinement to bed, possibility of vicious cicatrization, extreme severity of the method, and the fact that the same or a better result can be attained by less heroic means, are objections which have deterred me from resorting to it. The chemical caustics, silver nitrate in saturated solution or solid stick, tincture of iodine (Churchill's), and pure carbolic acid, applied at several different times when necessary, have proved all that was desired in my hands.

Dilatation of the sphincters occasionally proves a very useful remedy. Allingham's bone plug, designed for being retained at night, has been highly lauded by some authors. Probably much more can be accomplished along this line by systematic dilatation with the metal instruments of graduated sizes, used either hot or cold, according to the effect. These are best used just before retiring.

The time limit prevents any detailed discussion of the many local remedies which mav be indicated in the treatment of this trouble.

If I were asked to summarize what I considered to be the essential features in the management of the local condition, I should say:

1. Cleanliness.
2. Protection of the parts from friction and irritation of all kinds.
3. Local applications according to the indications of the individual case, for the relief of the itching and the restoration of the altered skin to normal; and
4. In exceptional cases the destruction of the diseased skin, preferably with the chemical caustics.

CONSTIPATION AS A HABIT.*

By CHARLES B. FORSYTH, M. D.,

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In presenting this paper, I do not know that I have to offer very much that is new to any of you, but I hope it may serve to refresh your memory, or at least to stimulate your recollection, on a few points in relation to one of the most common, if not the most common, affections we are called upon to treat, and one to which we often give too little attention.

The physicians of old called the digestive canal the primæ viæ, i. e., the first paths of life, for there the life-sustaining food is prepared for the fluid of life—the blood—and the first path to sickness and death is usually in the digestive canal; there is no organ in the body which does not suffer when the digestive tract is out of order.

Constipation is a relative term. What is constipation to one is not constipation to another. One patient will tell you that if his bowels do not move every day he feels bad, has headache and languor, and is tired, while another one in apparent good health will inform you that his or her bowels move only every second, third, or fourth day. The late Dr. Yandell once stated that a patient, in describing her trouble, said that so far as her bowels were concerned she was all right, as they moved with perfect regularity every two weeks; Dr. J. M. Mathews, in his work on *Diseases of the Rectum,* describes a case of a young lady whose bowels moved only once every three months—four times a year. In my own practice, I have had a case of young woman, aged twenty-three years, whose bowels did not move from September 18th until January 5th, thirteen weeks. She would often go two months without a movement and be in apparent good health so far as general appearance indicated. The statements of herself and husband showed that after a week or two of diarrhœa she would eat a normal amount and retain it, then she would, after retaining food twenty or thirty minutes, vomit everything and feel all right until after the next meal; this would go on until after two or three months she would again have a diarrhœa. No amount of persuasion, either on the part of myself or her husband, would secure her consent to an examination or even a promise to take medicine; so I presume she is still enjoying the discomforts of her folly and ignorance.

Gould defines constipation as a sluggish action of the bowels, Osler as retention of fæces from any cause, while Starr states that the absence of a regular, periodical expulsion of fæcal excrement from the bowels constitutes constipation.

Causes may be classified as local and general. Of the general we have,

1. Constitutional peculiarities; torpidity of the bowels is often a family complaint, and is found more often in dark than in fair persons.
2. Sedentary habits, particularly in persons who eat too much and neglect the calls of Nature.
3. Certain diseases, such as anæmia, neurasthenia, and hysteria, chronic affections of the liver, stomach, and intestines, and acute fevers. Under this head we might class the condition now too often met with—drug taking.
4. Either a coarse diet which leaves too much residue or a diet which leaves too little may be a cause of costiveness.

Of local causes we find weakness of abdominal muscles in obesity or from overdistention in repeated pregnancies.

Atony of the large bowel from chronic diseases of the mucosa, presence of tumors, physiological or pathological, pressing on the bowel.

Enteritis, foreign bodies, large masses of scybala and strictures of all kinds. By far the most important local cause is atony of the colon, particularly of muscles of the sigmoid flexure, by which the fæces are impelled into the rectum; fissures of the anus, when on account of pain in defecation, the patient refrains from going to stool and the constipation habit is formed. In some cases we find a congenital dilatation of the colon causing constipation, a condition which we should look for in cases of persistently swollen abdomen.

The veins of the lower bowel, which all connect with the portal system, have no valves, or at best very imperfect ones, and are enveloped in loose connective tissue, which affords very little support, so that any congestion of the hepatic system produces a direct effect upon the lower bowel. Gravity, of course, plays its part and makes a bad matter worse. The spermatic and ovarian veins pass behind the sigmoid flexure and are exposed to pressure from its contents, so one can readily see the influence constipation has upon diseases of the sexual and generative organs, and particularly in the female, because the rectum is more capacious and less curved than in the male. The symptomatology we all hear too often from the patients themselves; very often in consequence of local irritation from the retained fæces a conservative purging is excited, and the patient suffers alternately from diarrhœa and constipation. The bowel, however, is not always fully emptied of its contents when such a diarrhœa occurs, and the retained fæces in time undergo decomposition with the generation of noxious gases, which, in turn, distend and irritate the bowels.

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* Read before the Medical Society of the County of Jefferson.

Some authors say that all cases of habitual constipation are accompanied by a considerable amount of chronic irritation and subacute inflammation of the cæcum and colon and neighboring cellular tissue. The effect of this is reflexly to arrest peristalsis.

Impaction of fæces in the cæcum, as well as swelling of its mucous membrane, may produce closure of the passage between it and the appendix vermiformis. The treatment is well known, and many are the specifics, so called, that are constantly being placed before us, as well as newly applied mechanical devices for the better application of such agencies as galvanism, massage, lavage, exercise, etc., to say nothing of the numerous and varied diet lists at our disposal; but there is one factor constantly overlooked, and that is the part played by the normal intestinal flora in producing free movements.

Roos, of Munich, obtained the colon bacillus from fæces, grew it on agar, and filled the culture in gelatin capsules which were covered with collodion and keratin, each capsule containing one platinum loopful of the pure culture. Five such doses were given to several patients during five days, with the result that they were relieved from constipation for the following two weeks. Experiments with dead bacilli proved negative. The bacilli employed in the same manner caused increased peristaltic action and flatulence, but hardly relieved constipation. The addition of sugar to the diet did not increase the action. Half gramme doses of yeast worked well in scurvy and furunculosis, and produced no gastric disturbance or flatulence. Dried yeast exposed to heat seemed to have an even more beneficial action.

Habit may be defined as the usual condition of a person or thing, i. e., the ordinary state, whether natural or acquired, and especially in regard to the physical temperament. Hence, prominently, the involuntary tendency to perform certain actions, which is acquired by their frequent repetition.

If I may be permitted to leave with you just one impression, it is—the relation and importance of habit to certain physiological processes and particularly to the depressed functions of an indolent lower bowel.

We hear and read much of the influence of mind over matter, but to no part of the system is such a statement more applicable than to the terminal, large intestine. Women are more dilatory than men in this respect, because the many cares and responsibilities of a house and family keep a woman from heeding Nature when she calls; she thinks after this or that thing is done she will obey Nature's promptings, but nine times out of ten the peristaltic wave, which has started from the cæcum, has dropped the fæcal mass into the sigmoid flexure before she has finished her task, and the act is forgotten; while men, as a rule, lead a more systematic daily life, and are in a position to respond when Nature calls. But if, through false modesty, attention to business, or general laziness, and this is by no means infrequent, attention is not paid to the efforts, then the water constituent, which is the greater, is absorbed and carried into the circulation. In consequence we have an autoinfection which may prove of serious import.

In regard to muscular and glandular action I do not believe the powers for evil habits are any greater than those for good, and I do believe that 90 per cent. of cases of chronic constipation (barring those of obstruction from anatomical causes) can, with a suitable remedy to start the action, be cured if you can get the patient to have a particular time for evacuating the bowels and go at that time every day, whether he feels the desire or not. There is no reason why the bowels should not have as much consideration as, or more than, the stomach, since they have to bear the brunt of all the stomach's indiscretions and faulty actions.

Those who have seen Sandow and noted the wonderful control which he has over nearly every muscle in his economy, know that it was no special gift of Nature, but only patient and systematic training that gave him that control. So, in musicians, skilled artisans, etc., we find the same result; muscles which we have been taught were involuntary become obedient subjects under systematic training and readily accustom themselves to habit. Thus, in the prevention and treatment of constipation, there is no one agent of more or as much value as the persistent régime which should be the order of every one's daily life.

THE VALUE OF LOCAL TREATMENT, PREPARATORY TO OPERATION.*

By H. C. COE, M. D.,

NEW YORK.

By preparatory treatment I understand local applications of such a character as either to allay inflammations, to assist an antatomical cure, to be completed by the operation, or to render the latter more sucessful from a clinical standpoint than it might otherwise be. The subject being limited to the non-operative side, it is obvious that the discussion must be confined almost entirely to the so called preparatory treatment before plastic operations within the vagina.

Having received my early gynæcological training in a school in which considerable emphasis was placed upon the importance of such "preparation," I may be criticized when I state frankly at the outset that I now regard most of the lessons then inculcated as opposed to the ordinary facts of anatomy, as well as common sense. It would ill become a pupil of our venerated fellow, Dr. Emmet, to cast discredit upon his pioneer work in gynæcology. Whatever modifications our views have undergone with regard to his theory of pelvic pathology, many of his clinical deductions are as sound as they ever were, and we have not yet outgrown the influence of his acute, logical mind. It is pleasant to feel that he has not had to wait for a future generation to do him honor. But, while accepting his views as to the value of the hot douche in some forms of acute pelvic inflammation and of the glycerin tampon to assist in the absorption of exudate, as long ago as 1886 I expressed skepticism as to the necessity of a long course of preparatory treatment before operations on the pelvic organs, taking the ground that long standing anatomical changes in and around the uterus and annexa were not affected by hot douches, applications of iodine, tampons, etc. I assumed that acute and subacute inflammations of the annexa (then usually known as "cellulitis") were naturally contraindications to trachelorrhaphy. This is now ancient history. Doubtless the haste which characterizes modern life is felt in surgery, and we too often operate prematurely, but certainly there are few patients nowadays who would submit to weeks of preparation before repair of a lacerated cervix and perinæum, however long they might demur before resorting to laparotomy. Nor is it necessary. A condition that has existed perhaps for years and in which an operation is clearly indicated can be cured only by operation. I note in one of the most recent textbooks on gynæcology the old familiar advice to puncture cysts, paint erosions with iodine, etc., before performing trachelorrhaphy. Why not, we should naturally ask, amputate the diseased cervix at once, thus removing all the affected tissue, instead of wasting weeks with tentative palliative measures?

The same criticism applies to operations within the abdomen. Would the general surgeon expect a diseased and adherent appendix to become a more favorable subject for an internal operation by subjecting the patient to a long course of preparation for months after acute symptoms had subsided? As long ago as my hospital days observations in the examining room and dead house convinced me that an adherent uterus and annexa could not be rendered freely movable by any amount of non-surgical treatment. I have seen it persisted in for years, and on finally opening the abdomen it was evident that all that the daily tamponade had accomplished was to distend the vagina and elevate the pelvic organs *en masse*, without separating a single adhesion or restoring diseased organs to a normal condition. I do not deny that we may operate too often at the present day, and do not have the patience of our predecessors in giving palliative treatment a fair trial, but I do affirm that our accumulated clinical experience has proved that in most cases in which "preparation" was formerly regarded as a *sine qua non* just as good (and better) results are obtained by proceeding without this delay.

I have a vivid remembrance of the orthodox course of treatment pursued in the case of a patient with the commonly associated conditions, laceration of the cervix, with corporeal endometritis. laceration of the pelvic floor, prolapsus, with cystocele and rectocele. To repair any two of these lesions at one sitting was regarded as quite unjustifiable—in fact, I can recall the case of a patient with these conditions under my observation when a resident physician in a special hospital in New York, who had four separate operations, each with a prescribed interval of "preparatory" treatment for the next séance. She was eventually discharged in fair condition, wearing a pessary, but after a stay of at least three months, instead of as many weeks, as at present.

"Mais nous avons changé tout cela." The influence of this teaching was felt throughout the profession—witness the elaborate directions for local treatment in the monograph on *Minor Gynæcology* by our late lamented fellow, Dr. Mundé. That we really believe very little in it is proved by the routine office treatment of every one in this audience. To refer again to the most familiar example: We used to be taught that a lacerated and eroded cervix with general induration and cystic degeneration must be subjected to a certain course of preparation before one could venture to repair it with any hope of anatomical and symptomatic cure. Hot water douches, applications of iodine, puncture of the cysts, local depletion (whatever that may have meant)—all these were used to "prepare" the patient for operation, instead of amputating and removing the disease at once. If an old parametric cicatrix was present a vigorous attempt was made to remove it by means of iodine and glycerin tampons. How often this supposed "cellulitis" was really a thickened and adherent tube we learned long ago at the operating table. I am very far from desiring to "remove the ancient landmarks that the fathers set up," but I do plead for a sound anatomical and clinical reason for every procedure in gynæcology, whether surgical or nonsurgical. Reverence for tradition is one thing, but common sense is another.

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* Remarks in a symposium at the American Gynæcological Society, May 26, 1904.

I have the utmost respect for hot douches and icthyol or boroglyceride tampons in the treatment of pelvic exudates, but I believe that these are misapplied when their use is persisted in in cases in which laparotomy has taught us adhesions can be separated only by the fingers within the abdominal cavity.

Every gynæcologist can testify to the wonderful absorptive action of the lymphatics in so called chronic cases, but every conscientious observer must also admit that he has wasted his own and his patient's time and patience in attempts to "prepare" for an operation which ought to have been done at once. Not a few unfortunate cases of ruptured ectopic pregnancy have been due to this ultraconservatism. I assume that there can be little difference of opinion with regard to the advisability of delay and expectant or local treatment in certain acute and subacute inflammatory affections of the annexa. Hasty operation under these circumstances may bring failure, if not disaster. I am referring rather to the so called "chronic" cases, in which some still advise local preparatory treatment, instead of meeting the obvious indications without delay.

I have seen too many cases of inoperable carcinoma of the cervix follow a long course of applications in the hands of the general practitioner to have any sympathy with such medical gynæcology. And I may add that I have seen too many cases of simple leucorrhœa treated indefinitely with intrauterine applications until they were transformed into obstinate cases of genuine endometritis to favor such conservatism. So far as my own personal opinion is concerned, I should prefer either to operate upon such a patient or to let her alone.

While on this subject it may not be amiss to suggest that more can often be accomplished by judicious *general* than by local treatment preparatory to an operation. The heart, lungs, kidneys, the relaxed abdominal muscles in cases of enteroptosis, the condition of the bladder and bowels—all these deserve as much (or more) attention as the local changes to which I have referred.

Personally I have rejected the use of the term "chronic" in connection with disease of the pelvic organs. What *is* chronic endometritis, metritis, salpingitis, oophoritis, but hyperplasia of epithelium, glandular, or fibromuscular tissue, the result of a former acute or subacute inflammatory process, or long standing congestion? And how can we expect a *restitutio ad integrum* from local applications? These questions have never been answered to my satisfaction in any of our recent textbooks. One class of cases must be excepted from this critcism. Those of us who witnessed the many successful operations for complicated vesicovaginal fistula at the Woman's Hospital (conditions now so rare in this country) must admit that the admirable results were due not only to the skillful technics of the surgeon, but to the careful course of preparatory treatment to which patients were subjected to cure the existing cystitis, divide cicatricial bands, dilate the vagina, etc. And there is no doubt, too, that the care bestowed upon patients for days, and often weeks, previous to the repair of complete laceration of the perinæum was responsible for the success of the operations in the preaseptic period when such dreadful results follow neglected obstetric cases. I have no doubt that we should do better to pay more attention to the stretching and division of cicatricial tissue than we do preparatory to our operations for atresic conditions the result of traumatism.

The younger generation, who do not realize the difficulties with which the older surgeons had to contend, cannot appreciate properly the difference between then and now. We flatter ourselves that our technics is now practically perfect, but what will surgeons think of it fifty years hence? Doubtless the later volumes of our transactions will be more open to their criticism than are the papers of the forceful and original thinkers who have left us this precious legacy.

8 West Seventy-sixth Street.

HYPERNEPHROMA AS A RESULT OF TRAUMATISM. NEPHRECTOMY. RECOVERY.

By GEORGE CHANDLER, M. D.,

KINGSTON, N. Y.,

SURGEON IN CHIEF, BENEDICTINE SANITARIUM.

The rarity of this condition, found on operation, is the reason for presenting the history of this case, and a few brief remarks on the subject of hypernephroma. Briefly, the history is as follows:

Mr. L. T., of Cazenovia, N. Y., forty-three years of age, is a cabinet maker by trade. His family history is negative. He had the illnesses common to childhood, but otherwise his health has been good.

Four years ago, while lifting a heavy barrel, he was seized with an excruciating pain in the right lumbar region, which extended into the right groin. He became faint, was nauseated, and fell to the ground. In a few minutes he had a violent desire to urinate, and passed about a pint of pure blood.

On being carried home, he found that while he remained on his back he was fairly free from pain; though for some days he felt a dragging sensation over the right lumbar region.

About six hours after the injury he tried to urinate, but was unable to perform the act. This condition lasted for about twelve hours, when he called a physician, who used a catheter with no result, except a small amount of blood. The doctor, upon washing out the bladder, was able to bring away large clots.

After this, by the application of heat over the pubic region, the patient was able to urinate without other aid, but continued to pass clots of blood for some ten or fourteen days, though able to be about before this.

His appetite remained good and he continued in fair health for three years and a half, with the exception of *intermittent hœmaturia*. He was treated by different physicians for this condition, but with no benefit.

Clear blood was sometimes passed, and at the next urination, perfectly normal urine. There was nothing regular about the amount or appearance of the blood, though at one time he went four months without any trace of it.

Ten months ago, the patient presented himself to Dr. Green, of Syracuse, N. Y., by whom the case was referred to me. Dr. Green states that at that time he had the symptoms of a gastric catarrh and was anæmic. Under proper medication he improved, and Dr. Green did not see the patient again until October, 1903, when he complained of a growing weakness and "could feel a bunch" in the right side of his abdomen.

When I saw the patient he appeared poorly nourished, with a pale muddy skin, and was in an extremely debilitated state. Heart and lungs negative. Hæmaturia once or twice a day. A large mass was palpable, extending from three fingers' breadth below the free border of the ribs to about a hand's breadth above Poupart's ligament.

The entire mass was to the right side of the umbilicus. There was dulness over the area and some resonance between the mass and free border of the ribs. The mass could be palpated in the deep lumbar region and was movable.

A diagnosis was made of tumor of right kidney, and though the patient's condition was not good, operation was advised as his best chance.

Operation November 21, 1903. Nitrous oxide, ether anæsthesia. Dr. Green assisted. Nephrectomy through an oblique lumbar incision, ten inches long, about the same as for operation on the ureter. A large mass bound down by adhesions was found. The operation was very embarrassing, owing to the extreme condition of the patient, and oxygen and saline infusions were used.

The whole mass was removed rapidly, the ureter tied off with silk, and the vessels of the distorted pedicle of kidney mass were ligated separately. Plain gauze packing was used in the cavity, and the wound was sutured rapidly with silkworm gut.

The patient made an uneventful recovery, except for a slight rise of temperature lasting about ten days.

Three ounces of urine were passed on the first day, sixteen on the second, and twenty-three on the third. After this he passed thirty or forty ounces of normal urine each twenty-four hours. The patient was able to leave the hospital thirty-one days from the date of operation, the wound having healed by primary union, with the exception of a small sinus, which closed about four weeks later. He has gained about fifteen pounds, and looks and feels in the best of health at the time of writing.

A pathological examination showed a large, dark red mass, ovoid in shape, 9½ inches in length, 5¼ inches in breadth, and 4½ inches thick, inclosed in a thickened capsule with one or two distorted calices and a dilated kidney pelvis.

A microscopical examination showed that the mass was composed throughout of *adrenal tissue*, and that there was no kidney tissue left. In other words, the kidney tissue, with the exception of the capsule, was replaced by adrenal tissue—a case of hypernephroma.

Upon looking over the literature of this subject, I find that Birch-Hirschfeld gave the name of hypernephroma to this condition. Grawitz, in 1883, first described the condition, and made the statement that small accessory adrenal masses, or "rests," were found in 92 per cent. of all bodies, being situated in the kidneys, liver, viscera, and even in the large nerve plexuses, such as the solar plexus, etc.

That adrenal tissue is so often found in the kidneys has been refuted by some. Dr. George A. Tuttle says that in only one case among 1,000 autopsies did he find adrenal tissue below the capsule of the kidney.

It is generally conceded, though, that small portions of this tissue are found in the kidneys, left there as a result of fœtal development.

Where hypernephroma is developed, the capsule of the kidney is often involved.

The cells in this tissue differ from the renal cells and contain fat globules—a distinct fatty infiltration. The cells are polyhedral in shape and are often elongated or flattened by pressure, and they also contain black pigment granules. They are arranged about the veins and resemble the zona fasciculata of the adrenal cortex. The tissue is very vascular, and owing to the arrangement about the veins, metastasis may occur.

We find spheroid or ovoid nodes of this tissue separated by bands of connective tissue. The growth has been well called "strumæ lipomatodes aberratæ renis." In these tumors are often found cysts formed from dilated uriniferous tubules in the kidney islets within this misplaced adrenal tissue. That these little misplaced portions of tissue, or "rests," become active through irritation, and go on to form hypernephromata, seems clear, thus complying with Cohnheim's hypothesis. These tumors in about 50 per cent. of the cases become malignant. This is called the "malignant transformation of aberrant adrenal tissue in the kidney."

The points of interest to the writer were as follows:

1. Injury from lifting, causing *intermittent hæmaturia for four years.*
2. A tumor developing over three years from history of traumatism.
3. Rarity of the condition, there being only a few cases recorded.
4. The likelihood of hypernephromata should be considered in cases of intermittent hæmaturia.
5. A condition that is not primarily malignant, but is simply a replacement of one tissue by another.
6. That malignancy may develop in 50 per cent. of such cases with metastasis.

Insane Hospital Planned for St. Paul, Minn.—Plans to establish a hospital in the State for demented persons who are not so seriously afflicted as to be proper subjects for commitment to an insane hospital were discussed at a meeting of the probate judges of the State of Minnesota, held in St. Paul September 1st and 2nd. Many of the judges of the probate courts throughout the State have felt for a long time that there should be some public institution to which there might be sent such persons of mature years as are not positively insane, but are slightly afflicted with dementia, and feeble in mind.

A CASE OF ANOPHTHALMUS.

By CHARLES GRAEF, M. D.,

NEW YORK.

The female child in which this condition occurred is the first born of a mother, aged twenty-six years, and of a father twenty-seven years of age.

The parents are thoroughly healthy and present a clean family and personal history. They had been married fourteen months when this child was born,—the mother's first pregnancy.

No case of imperfect development has occurred in the families on either side, and although large families have been the rule, none of the children has given evidence of poor nutrition or defective vital stamina.

The mother has never been ill in her life, and had an uneventful pregnancy, except for a fall about the end of the sixth month.

The birth was easy and unassisted, but the obstetrician had to carry on artificial respiration for a short time, as the child's breathing was slow in being established.

The peculiar closure of the lids drew attention to the child's eyes—the upper lid was curled deep into the orbit, the thickened lower lid overlapping it.

When lid retractors were used one could make out a small orbital cavity, lined with conjunctiva and a bulging lower lid, which had a bluish tint showing through the thin covering. No trace of an eyeball could be detected.

The child is perfectly formed in every other way,—has a well shaped head, good baby features, and every appearance of health and good nutrition.

The bulging lower lid is probably due to cyst formation,—this being filled with serous fluid and containing some retinal elements in the wall, is usually, in these cases, connected by a filament with the rudimentary eyeball, which last cannot be found in the living subject.

Arlt explains these cases as due to incomplete closure of the ocular cleft; the intermediate tissue closing in the cleft bulges out into quite a large sac, which is appended to the eyeball, while the latter itself is retarded in its development. The tissue connecting the sac and the eyeball elongates, and at the same time contracts into a thin cord, so that finally, we have a large bladder to which the eyeball, reduced to the size of a small pea, or less, is attached by means of a pedicle.

Another explanation is that the ocular vesicle grows but atypically below into the orbital tissues, forming a cyst, while the eye proper undergoes atrophy.

A careful examination of the eyes of both parents in the present instance revealed nothing abnormal.

Our Subscribers' Discussions.

A SERIES OF PRIZE ESSAYS.

Questions for discussion in this department are announced at regular intervals. So far as they have been decided upon, the further questions are as follows:

XXXII.—How do you treat insomnia? Under adjudication.

XXXIII.—How do you treat varicose veins of the leg? (Answers due not later than October 15th.)

XXXIV.—How do you treat internal hæmorrhoids without an operation? (Answers due not later than December 1st.)

Whoever among our subscribers (with the limitations mentioned below) answers one of these questions in the manner most satisfactory to the editor and his advisers will receive a prize of $25. No importance whatever will be attached to literary style, but the award will be based solely on the value of the substance of the answer. It is requested (but NOT REQUIRED*) that the answers be short, if practicable no one answer to contain more than six hundred words.*

Only subscribers to the NEW YORK MEDICAL JOURNAL AND PHILADELPHIA MEDICAL JOURNAL *(including regular and volunteer officers of the Medical Corps of the United States Army, Navy, and Marine Hospital Service, commissioned or under contract) will be entitled to compete, and all persons known to be engaged in medical journalism are disqualified. This prize will not be awarded to any one person more than once within one year. Every answer must be accompanied by the writer's full name and address, both of which we must be at liberty to publish.*

The prize of $25 for the best essay submitted in answer to question XXXI has been awarded to Dr. Joseph Baum, of New York, whose article appears below.

PRIZE QUESTION NO. XXXI.

RESUSCITATION FROM APPARENT DROWNING.

By JOSEPH BAUM, M. D.,

NEW YORK.

The subjoined method of treating cases of supposed drowning is based on ten years' summer residence at a popular seaside resort (Rockaway Beach), where thousands of people go into the surf daily. It has proved successful in my hands in many cases where death seemed imminent or to have already occurred.

When summoned to a case of supposed drowning, get your emergency bag and go immediately; seconds are priceless in such an emergency. If the assistance of another physician is not possible, pick out some intelligent looking bystanders, who must follow your instructions quickly and implicitly.

While one of your assistants is removing all constricting garments from the neck and chest, force the jaws apart and insert a mouth gag; in an emergency a rolled bandage or a cork, even a thick piece of wood can be used. With the fingers clear the pharynx and posterior nares of seaweed, mucus, or any other foreign matter. With the patient on the back, begin artificial respiration; if possible, turn the artificial respiration over to an assistant who is able to do it correctly, with or without your guidance and instruction.

With an artery forceps catch the tongue firmly and pull it out between the lips, for the purpose of making rhythmic traction at the rate of eighteen or twenty tractions a minute. Allow another assistant to perform this work under your guidance.

Begin with hypodermic injections as soon as possible, using strychnine, digitalin, caffeine, ether, or any other cardiac stimulant, the tablets being dissolved in whiskey, if it is posible to obtain it, otherwise water must be used. When the heart responds and breathing begins, use atropine hypodermically; the ordinary household ammonia or smelling salts may be useful, when respiration begins to be reestablished. If a cylinder of oxygen can be brought to the beach, its use can be put into the hands of another bystander after a moment's instruction.

One of the best and readiest cardiac and respiratory stimulants is hot water applied over the chest and præcordium; towels or cloths soaked in very hot water are laid on the bare chest and changed every few minutes; hot cloths may also be applied to the legs and feet and also to the arms and hands. Until the hot water arrives, dry friction over the extremities is useful.

The inevitable barrels, of course, make their appearance, and instead of the unscientific, haphazard barrel rolling, I make use of a method which I have never seen mentioned in any article on this subject. I place the barrels on end, and have two or more strong men stand on the upturned ends of the barrels. The patient is then lifted, feet uppermost, with the head hanging clear of the ground; it needs several assistants to hold the patient in this suspended position for the necessary few minutes. With the mouth gag still in position, push one or two fingers into the pharynx, and if possible try to stimulate coughing or vomiting. Whether it is the force of gravity or the reflex stimulation of the throat and larynx, it is certain that usually a quantity of sea water and stomach contents is ejected. This reflex vomiting is often the preliminary to an effort at deep inspiration, and then follows a paroxysm of coughing, water and bloody mucus being expelled through the nose and mouth. The ammonia is now applied close to the nostrils for a few seconds, and the patient takes two or more deep respirations, and perhaps coughs and vomits a large amount of water and frothy, bloody mucus. Then lower the patient, and resume the traction on the tongue and the artificial respiration, keeping them up until the respiration seems fairly established. The hot wet cloths over the heart are continued until the pulse is felt at the wrist.

In cases in which the person has been in the water for only a short time, and proper methods of resuscitation were at once instituted, I have found that artificial respiration, alone or combined with traction of the tongue and inversion of the body, was sufficient to reestablish the vital functions. In very severe cases, where the immersion has been for some time, and where it has been some minutes before efforts at resuscitation were begun, I have always used, and generally with success, every detail of the above described method.

55 East Ninety-third Street.

[We regret that we have not the space for other essays on this subject.—The Editor.]

Therapeutical Notes.

Chronic Otorrhœa.—*Nouveaux remèdes*, for July 24, 1904, quotes Ménière as stating that carbolic acid is the best remedy for this disease. Hot water is injected into the affected ear, which is then painted with

℞ Crystals of carbolic acid.............1 to 5 grammes (15 to 75 grains);
Pure glycerin..5 to 10 grammes (75 to 150 minims).
M. For local use.

Later, when the flow has diminished, use:

℞ Pure glycerin............10 grammes (150 minims);
Corrosive sublimate...........5 to 25 milligrammes ($^{3}/_{40}$ to ⅜ grain).
M. For local use.

Carbolated glycerin, besides acting as a cure, has a distinct analgetic action in otorrhœa.

The Proper Acid for Stomach Medication.—Martinet, in *Presse médicale*, for July 28, 1904, states that Robin uses the following formula:

℞ Sulphuric acid, C. P..240 centigrammes (36 minims);
Nitric acid..........80 centigrammes (12 minims);
Alcohol at 80°..........18 grammes (4½ drachms).

Allow this to stand for forty-eight hours, then add:

Syrup of lemons........100 grammes ($3^{1}/_{3}$ ounces);
Water ....150 grammes (5 ounces).
M. Three tablespoonfuls daily, in water, after meals.

The foregoing mixture, says Martinet, is irritating to the stomach, and can be used only in very small doses. It is also hurtful to the renal epithelium. He prefers the following combination:

℞ Phosphoric acid............10 grammes ($^{1}/_{3}$ ounce);
Sodium acid phosphate.....20 grammes ($^{2}/_{3}$ ounce);
Distilled water..........200 grammes ($6^{2}/_{3}$ ounces).
M. One to four coffeespoonfuls daily, in water, wine, or beer.

Treatment of Hæmorrhoidal Hæmorrhage.—*Journal des praticiens*, for July 30, 1904, states that the simplest remedy for such hæmorrhage is water, either very hot or very cold, with perhaps 5 per cent. of alum added. Pagliari water, containing 15 grains of benzoin and 30 grains of alum to each 5 drachms of water, may be added to the enema in the ratio of one tablespoonful to the pint. The old prescription of iron perchloride in water is no longer used. Cracked ice, in a bag of goldbeater's skin, may be introduced into the anus. A valuable hot injection is:

℞ Carbolic acid.........30 centigrammes (4½ grains);
Glycerin ....25 grammes ($^{5}/_{6}$ ounce);
Boiled water............225 grammes (7½ ounces).
M. For an enema.

A thoroughly modern prescription embodies suprarenal extract, gelatinized serum, or calcium chloride. A cotton tampon may be dampened with 50 drops of the suprarenal extract, 1 to 1000, mixed with a tablespoonful of water, and placed in the rectum for ten minutes. It should then be replaced by a tampon powdered with antipyrine or iodoform. The following ointment has also been used:

℞ Cocaine hydrochloride..3 centigrammes ($^{9}/_{20}$ grain);
Suprarenal extract, 1 to 1000...............30 drops;
Petrolatum ....15 grammes (½ ounce).
M. Use a small quantity per rectum.

A suppository, that has proved serviceable, is:

℞ Cocaine hydrochloride...1 centigramme ($^{3}/_{20}$ grain);
Suprarenal extract, 1 to 1000...............5 drops;
Cacao butter and wax..........a sufficient quantity.
M. For one suppository.

A more elaborate formula is:

℞ Suprarenal extract, 1 to 1000...............5 drops;
Antipyrine, Salol } of each..25 centigrammes (3¾ grains);
Extract of belladonna...1 centigramme ($^{3}/_{20}$ grain);
Cacao butter and wax.......................enough.
M. For one suppository.

Suppositories, however, may bring on defecation and subsequent hæmorrhages.

Gelatin must be carefully sterilized before using in 5 to 10 per cent. solutions in water. Hypodermic injections may be used of a combination of gelatin, 25 to 1000 of water, and sodium chloride, 7 to 1000.

Calcium chloride may be given internally:

℞ Calcium chloride...........4 grammes (1 drachm);
Infusion of lime tree flowers........ } 120 grammes (4 ounces);
Simple syrup.................30 grammes (1 ounce).
M. Tablespoonful every hour.

As an enema, calcium chloride may be administered once or twice daily in the proportion of 60 grains to one quart of water. The pressure should be mild.

For Chapped Hands.—E. T. Blake, of London, says (*Eczema and Its Congeners*, 1902) that a capital way to prevent eczema of the hands in cold weather is to cover them at night with

℞ Phenol ....5 parts;
Cade oil...................................10 parts;
Nutritive cream..........................500 parts.
M. This should be vigorously rubbed in to promote free circulation. It is a good plan to wear a pair of loose leather gloves at night.

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AND
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THE PREVENTION OF TYPHOID FEVER.

We fear it will be a long time before this ceases to be a burning question. It is not so much that new discoveries need to be made or that novel procedures need to be instituted to protect communities against the disease. What is urgently needed is that means of defense that are perfectly well known should be more insistently and more systematically brought into play. It was in this conviction that Dr. William G. Daggett, of New Haven, read an important paper at the recent meeting of the Connecticut Medical Society, and the board of health of that State has done well to publish it in pamphlet form.

Dr. Daggett very properly lays stress on the fact that, "while the disease is ubiquitous, it is essentially a rural disease," and its propagation is in general from the country to the town. He insists, consequently, on "comprehensive rural sanitation." "The rural privy," he further says, "is the original plague spot, although casual deposits of infectious excreta may at times play a part. The location of the privy is usually based solely on considerations of convenience of access and a moderate degree of privacy, little or no thought being given to the direction of the flow of the ground water." It is seldom cleaned, he adds, and rarely screened, and the vault is never disinfected. It should be very carefully located and thoroughly screened to keep flies away, and should be disinfected daily, whether there is sickness on the premises or not.

Of all these precautions, the screening of the rural privy seems to us the one that has been the most neglected, and, although we quite agree that it is in the country that it is most needed, we cannot overlook the fact that there are in most large communities, even the metropolis, privies that call for the most careful attention. The city squatter, for example, is seldom provided with a privy at all superior to that of the farmer. The remedy against any harm that may result does not lie in hounding the squatter out of his home; that, indeed, for reasons that cannot here be discussed, would be both cruel to him and disadvantageous to the community in which he has established himself. It lies largely in the sanitary care of his privy, and especially, it seems to us, in the screening of it.

THE ANTITETANIC DRESSING.

Perhaps sufficient stress has not been laid upon the duty of dressing with dried and powdered antitetanus serum all fresh wounds that may possibly be contaminated with the germ of tetanus. Practically all accidental wounds may be so contaminated, but more particularly those to which earth or the dust of the streets has gained access, such as the excoriations that are so common in children, epileptics, and drunken persons from their falling in the street. A French practitioner, M. Maurice Letulle, has become so impressed with the necessity of the dressing that in the *Presse médicale* for July 16th he recommends its compulsory adoption as a routine measure in military and naval organizations, public schools, and the like, predicting that such an enforcement of it will stamp out tetanus among those to whom it is applied, and thus induce the indifferent public to submit to it.

His own procedure is to wash the wound copiously with boiled water, at the same time removing all foreign material, then apply a thick layer of the dried and powdered serum, and cover the whole with sterilized absorbent cotton or gauze. At the end of twenty-four hours the applications are removed, and unless the wound is well advanced in healing, the dressing is renewed. This should be done every day until the healing of the wound is complete. This he calls Calmette's method, and he insists that it has never yet done the slightest harm or ever failed to prevent tetanus.

We can readily concede that such a dressing is not likely to prove in any way injurious or even give rise to so slight an inconvenience as erythema, but it does not seem susceptible of easy demonstration that it prevents tetanus. To infer positively that it does, we should require wounds known to be contaminated and then submitted to the treatment without the subsequent development of the disease. Still, the probability of the efficacy of the serum thus employed should lead us to inculcate its use as a routine dressing.

THE "DECIDUUM."

We have been startled to find in the *British Medical Journal* for August 13th an editorial article entitled Are the Decidua of Tubal Pregnancy Always Expelled? This use of the word decidua as a plural is no printer's error, as we at first conjectured, for it occurs repeatedly in the article; besides, a form in the singular, "deciduum," appears in the following clause: "Supposing, however, that no entire deciduum is shed."

We have heretofore labored under the impression that the word decidua was the feminine singular of the adjective deciduus, the noun membrana or tunica being understood, precisely as in the case of conjunctiva, mucosa, cornea, serosa, etc. This impression of ours seems to be fortified by the expressions decidua catamenialis, decidua cellularis, decidua membrana, decidua menstrualis, decidua placentalis, decidua subchorialis, and decidua tunica, all of which are to be found in standard medical literature and all radically inconsistent with the notion that decidua is a plural.

On the other hand, we have not been able to discover a single instance of the use of "deciduum" in such literature. If it is employed, it must be as the neuter of deciduus in agreement with some neuter noun understood. Some such noun the *British Medical Journal's* writer must have had in mind, and we hope that he will tell us what it was.

SHOULD THE PHYSICIAN PATENT HIS IDEAS?

The opposition of the profession to the patenting of surgical instruments has been based upon the tradition which has come down from our medical forefathers that appliances and remedies used in medicine and surgery are primarily for the benefit of humanity, and that any pecuniary profit or other advantage which may accrue to the inventor is an obstacle to the application of the invention to humane ends. The fallacy of this position seems to me more than obvious. In order that the ethical principle regarding medical and surgical inventions established by our medical forefathers should be applied to the letter, certain conditions are absolutely necessary: 1. The instrument maker should furnish the appliance to the profession without profit to himself. 2. The physician or surgeon using the appliance should restrict its use to cases in which no fee is charged for his services. 3. Any hospital or other institution making use of a medical or surgical appliance for the relief or cure of disease should restrict the use of such inventions to pauper patients.

Whenever it can be shown that any person whosoever has made a profit, however small, out of the use of medical and surgical appliances, the strictly humane end and aim of the old-fashioned ethical principle involved are defeated. It requires very little argument to show that in practice the only individual who is made to conform to the established principle of ethics governing the patenting of medical and surgical appliances and remedies is the individual to whom we are indebted for the invention.

As matters now stand, the surgeon who invents an instrument and the physician who discovers a valuable remedy are compelled to produce them in the first instance at the expense of their own time, labor, and money, to say nothing of their brains. To add insult to injury, the instrument maker or drug manufacturer to whom he gives the profits of his ingenuity not only charges the profession, to which is entrusted the humane application of the invention, a large profit, but imposes upon the inventor himself a tax of profit on such of his own inventions or preparations as he may desire for his individual use. A bill lying upon my desk, rendered me by an instrument maker for an instrument which I invented, and which he is marketing at the usual rate of profit, serves as a case in point.

The spectacle of a hospital surgeon using an instrument invented by one of his brethren in operating in a case for which he has received or expects to receive a large fee, in a hospital which is charging high prices for lodging, nursing, and surgical dressings, is a grim satire upon the humane principle that actuated our medical forefathers in the formulation of that feature of medical ethics which covers the patenting of medical and surgical inventions. Where, as is only too often the case, the surgeon who is doing the operation with the appliance from which the inventor receives no profit, and in the invention of which he incurred great labor and expense, is paying commissions, the situation is worthy of the satire of a Smollett or a Molière. I do not hesitate to say that the humane idea, as applied to medical and surgical inventions, is an arrant humbug and an obstacle to scientific progress. Comparisons may be odious, but I believe that the humbug is much greater in America than elsewhere.

Some of the advertisements in medical journals strongly resemble those of cure-alls to be found in the daily papers. If a remedy is a valuable one, why should a journal object upon ethical grounds to its mention in the reading columns? Does the fact that somebody derives a profit from the product of his ability interfere with the humane application of the remedy? If the remedy is unethical, why should not a journal which objects to its appearance in the reading columns refuse to allow it to appear among its advertisements? With no desire to make invidious distinctions between journals, I feel safe in asserting that there are numerous high-toned medical journals which, while objecting to the mention of such preparations in a scientific article, without payment at advertising rates, could readily be cajoled into a change of heart as to the ethical principle involved by a satisfactory—shall we call it "payment" or "honorarium"? The same medical journals that would object to the mention of a protected American preparation will blithely publish in their reading columns scientific articles in which the merits of various European preparations are extolled, without protest. Does the fact that European genius rather than American derives a profit from certain proprietary remedies make these remedies "ethical" according to American standards?

A very important question in connection with the subject under consideration is that of whether the deriving of a profit from medical and surgical inventions by reputable scientific men would not be more directly in the interests of humanity than the present absurd custom. Great progress in invention cannot be expected without material rewards. This is as true in medicine and surgery as elsewhere. It would be absurd for any one to say that the profit that has been derived by inventors and "middlemen" from various electrical appliances has retarded the advancement in this field or has been detrimental to the best interests of humanity. Edison's inventions, for example, have been none the less valuable because of the profit the inventor and others have derived from them. The possibility of pecuniary returns would stimulate invention in medicine and surgery quite as much as it does elsewhere, and would induce certain inventive minds in the profession to enter the paths of invention, which are at the present time closed to them for the reason that their professional position is such that the invention of a valuable instrument or preparation could in no way aggrandize themselves by the advertisement incidental thereto.

The inconsistency of the medical profession in the matter under consideration is perhaps best shown by the fact that remedies of a semiproprietary or even proprietary nature are being extensively prescribed. The physician who prescribes a preparation protected by special marks, and who would at the same time adversely criticise the medical man who should patent an invention and thereby receive a small profit on the product of his brains, is in a very absurd position. He is content to pull the proprietary medicine man's chestnuts out of the fire at the expense of his own fingers, and incidentally of his patients, but he rebels against the idea of a professional confrère receiving any profit from his inventive ability. He is also content to allow the instrument maker to mulct him for an excellent profit on the surgical instruments necessary in his practice, and especially content because the doctor inventor does not participate in those profits.

If medical men patented their inventions a stop would be put to the prevalent practice among medical men of stealing the ideas of others and publishing them as their own. It would no longer be possible for the purloiner of surgical ideas to transpose a couple of screws in a valuable surgical invention and coolly publish it as his own. It is wrong that the inventor of a valuable instrument should be robbed of his just dues, and because of his invention not being protected by patents that he should be compelled to submit to the stealing of his ideas by dishonest professional folk. It is wrong also that the instrument maker should go on blithely robbing the profession of its legitimate dues and selling doctors' brains back to the profession at exorbitant prices.

To sum up: I believe that by the patenting of surgical instruments the following benefits would accrue to the profession: 1. The physician inventor would get the benefit of his ingenuity just as laymen inventors do. 2. He would protect himself against dishonest men in his own profession, who steal his ideas and publish them as original, and who, possibly, not content with stealing the products of his inventive genius, claim as their own the operation which the invention has made possible. 3. The question of priority in surgical invention and operation would in many instances be settled once and for all. 4. Competition and invention would be stimulated, and the best brains of the profession would be devoted to new inventions. 5. The profits now monopolized by the surgical instrument maker would be participated in by the men who furnish the ideas. I am aware that the instrument maker will have a counter plea upon this point, and state that a large proportion of the alleged inventions of medical men are really designed by the instrument maker, the doctor's name being used in connection with them to boom their sale. Very good. The patenting of surgical appliances would put a stop to this arrant fraud, and give the instrument maker what is legitimately his due. The rule would work both ways. The instrument maker who invents a valuable instrument would get not only the profit, but the reputation incidental to its invention. This would be only just. 6. A better class of instruments would be invented and there would not be in our offices so much metal and glass to be consigned to the dead lumber room of blasted hopes in medical and surgical inventions.

G. FRANK LYDSTON.

PULMONARY TUBERCULOUS DISEASE AND THE VAGUS REFLEX.

In view of the great importance of an early diagnosis in cases of suspected tuberculous disease of the lungs, we would call particular attention to Dr. Mays's article on the vagus reflex in connection with pulmonary disease, published in this issue. His observations seem well worthy of wide consideration and extensive testing in practice.

COPPER AS A PREVENTIVE OF TYPHOID FEVER.

A good deal has recently been printed in the newspapers about a proposition to prevent the spread of typhoid fever by adding a copper compound to the drinking water or by simply allowing the water to stand for a time in a copper vessel. It has long been known that copper has a certain germicidal power, and various preparations of the metal have been used in the treatment of diarrhœal diseases, but we think it would be unwise to trust to this use of copper as a prophylactic of typhoid fever to the exclusion of measures better known and less fraught with danger, for copper is a poison.

THE BEDFORD PARK TYPHOID FEVER OUTBREAK.

The recent small outbreak of typhoid fever in the Bedford Park district of the city of New York does not at the time of our going to press seem likely to spread to a great extent, and it is to be expected that it will soon be under control. The region affected is not so situated as to cause anxiety as to any possible contamination of the Croton water.

Obituary.

WILLIAM R. PRYOR, M. D.,

OF NEW YORK.

In the death of Dr. Pryor, which took place after a short illness, we have lost a very valuable member of our profession. He had accomplished much, but he was comparatively so young that it was easily within reasonable expectation that he would make many further substantial additions to our knowledge. He had won an enviable reputation in the whole range of gynæcology, but probably he will be chiefly remembered for his simple operative method of treating acute septic inflammations within the pelvis by way of Douglas's pouch, which is very forcibly set forth in a book, entitled *The Treatment of Pelvic Inflammations Through the Vagina,* published five years ago. Dr. Pryor was an efficient clinical teacher, and he took an active part in society discussions, always expressing original views with clearness and force.

News Items.

Society Meetings for the Coming Week:

MONDAY, *September 5th.*—New York Academy of Sciences (Section in Biology); Morrisania Medical Society, New York (private); Brooklyn Anatomical and Surgical Society (private); Corning, N. Y., Academy of Medicine; Utica, N. Y., Medical Library Association; St. Albans, Vt., Medical Association; Providence, R. I., Medical Association; Hartford, Conn., Medical Society; Chicago Medical Society.

TUESDAY, *September 6th.*—Buffalo Academy of Medicine (Section in Surgery); Elmira, N. Y., Academy of Medicine; Ogdensburgh, N. Y., Medical Association; Syracuse, N. Y., Academy of Medicine; Hudson, N. J., County Medical Society (Jersey City); Androscoggin, Me., County Medical Association (Lewiston); Baltimore Academy of Medicine; Medical Society of the University of Maryland (Baltimore).

WEDNESDAY, *September 7th.*—New York Academy of Medicine (Section in Public Health); Harlem Medical Association of the City of New York; New York Genitourinary Society; Medical Microscopical Society of Brooklyn; Medical Society of the County of Richmond, N. Y. (New Brighton); Bridgeport, Conn., Medical Association.

THURSDAY, *September 8th.*—New York Academy of Medicine (Section in Pædiatrics); New York Academy of Medicine (Section in Otology); Society of Medical Jurisprudence and State Medicine, New York; Brooklyn Pathological Society; Medical Society of the County of Cayuga, N. Y.; South Boston, Mass., Medical Club (private); Pathological Society of Philadelphia; Church Hill Medical Society of Richmond, Va.

FRIDAY, *September 9th.*—Yorkville Medical Association, New York (private); German Medical Society of Brooklyn; Medical Society of the Town of Saugerties, N. Y.

NEW YORK.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending August 27, 1904:

	Week end'g Aug. 27.		Week end'g Aug. 20.	
	CASES.	DEATHS.	CASES.	DEATHS.
Measles	70	4	73	7
Diphtheria and croup	244	25	224	26
Scarlet fever	48	2	54	5
Smallpox	..	..	..	..
Chickenpox	3	..	18	..
Tuberculosis	371	147	420	130
Typhoid fever	140	27	120	20
Cerebrospinal meningitis	..	17	..	24
Totals	876	222	909	212

Kingston Avenue Hospital, Brooklyn.—The following changes in the staff at the Kingston Avenue Hospital were announced on August 26th by the board of health: Rosa Faulkner, nurse, $360; resigned July 10th; Barbara McGovern, domestic, $216, appointed July 11th; Lillian De Puy, nurse, $480, resigned July 13th; Marie J. Lucas, nurse, $480, appointed July 14th; Edna Beck, domestic, $216, appointed July 15th.

New York and New England Association of Railway Surgeons.—The fourteenth annual meeting of the New York and New England Association of Railway Surgeons will be held at the Academy of Medicine, New York city, November 17 and 18, 1904, under the presidency of Dr. C. G. J. Finn, of Hempstead, Long Island. Railway officials and all surgeons interested in this work are cordially invited to attend. George Chaffee, M. D., secretary, 338 Forty-seventh Street, Brooklyn.

Professor Wassermann's Visit to the United States.—Among the arrivals on the *Kaiser Wilhelm the Second*, last Tuesday, was Professor Wassermann, of the University of Berlin, who is well known by his work on Immunity. He left Wednesday for St. Louis, where he is to deliver a series of lectures on his special subject, and also to act as one of the German jurors on the medical exhibit. On his return, he will spend some time in this city, and it is to be hoped that he may be induced to deliver one or two lectures here. A lecture from such an eminent authority on Immunity should do much to stimulate interest in this field.

A Swindler Working the Profession.—Dr. H. Greenstein, of 341 East Fifty-second Street, informs us that a fakir, posing as a representative of one of the various fraternal orders, is now going about obtaining money under false pretenses. He states that a new lodge is being formed by old members, dissatisfied with the present officers, and that a doctor is wanted to examine the candidates. The prospective victim's name will be proposed on subscribing $2.00. The fakir goes away and nothing more is seen of him. This individual is about 53 years old, has gray hair, is slightly bald, and has a small moustache. He is short, stout, poorly built, and weighs about 190 pounds. He claims to be an upholsterer, working in a large dry goods store.

The New Hospital in Fordham.—Workmen began digging for the foundation of the new $500,000 hospital in Fordham, which is to take the place of the dilapidated old structure now in use, on August 29th. The new hospital will be located at Croton Avenue and the Southern Boulevard, facing Bronx Park, on a four acre plot purchased by the city from St. John's College for $30,000. The main, or administration building, will be 112 by 42 feet, with two ward wings, each 82 by 35 feet. The main building will be four stories high and the wings three stories, with a basement under all. A feature of the new hospital will be the large operating room under a glass roof on the top floor of the administration building. There will be smaller operating rooms on the same floor for minor cases.

A Benefit for Nassau Hospital.—A fair for the benefit of the Nasau Hospital of Mineola will be held at Mr. and Mrs. Clarence Mackay's home, Harbor Hill, Roslyn, L. I., on Saturday afternoon, September 24th, from 1 until 7 o'clock. The women of the different committees will have tables, and among these are Mrs. William M. Baldwin, Mrs. William L. Swan, Mrs. Butler Duncan, Jr., Mrs. Oliver Belmont, Mrs. William K. Vanderbilt, Jr., Mrs. Frank Pendleton, and Mrs. Livingston Beeckman. It is hoped that every one living in the vicinity will attend this fair, and that the united efforts of the Long Islanders themselves and those who have recently rented or bought places near by will make the undertaking a success. The park and the ground floor of Harbor Hill will be open to the guests, and any one wishing to buy tickets can procure them by writing to Mrs. Mackay. They are 25 cents each.

Manhattan State Hospital, West (Ward's Island).—Programme of sports by patients and employees, Labor Day, September 5 ,1904. Contests will begin promptly at 2.30 p. m. on the grounds of the hospital. Order of events: 50 yards dash—women patients; three legged race—75 yards—men patients; egg race—50 yards—women patients; 50 yards dash—women employees; basket ball—patients; 60 yards dash—men patients; ping pong contest; sack race—50 yards—men patients; shoe hunt—50 yards—page boys; wheelbarrow race—75 yards—men patients; potato race—women patients; tether ball contest—women patients; bowling on the green—women patients; bucket race—50 yards—women patients; golfette—women patients; tug-of-war—women patients; nail driving contest—women employees; tug-of-war—men patients; bed making contest; basket ball—nurses. Evening programme at 7 o'clock; bowling—men patients. Music by the hospital orchestra.

St. John's Guild, whose claims on our readers' attention we have frequently urged, requires $15,000 to complete its work for the summer. The Seaside Hospital employs three physicians and forty nurses; the Floating Hospital one physician and six nurses, besides maids, orderlies, and crew. In addition to the medical treatment given, which is the very best, Dr. Abraham Jacobi being president of the guild's medical board, scientific research is being made and data are gathered by a resident bacteriologist at the Seaside Hospital, and mothers are helped and strengthened and taught how to care for their children in simple ways that may be carried out at home. Checks may be sent to Isaac N. Seligman, treasurer, 501 Fifth Avenue. The guild opened its Seaside Hospital, June 20th. Since that date it has given over 20,000 days of hospital treatment to 2,200 patients. The service has been heavier than ever before in the history of the guild, owing to the fact that there has been more sickness of unusual severity. The floating hospital made its first trip July 5th. Since that time it has carried over 25,000 children and their mothers, including more ill babies than ever before, both wards going out crowded almost every day.

PHILADELPHIA.

Danger from Nitric Acid.—A tank containing nitric acid burst in a printing house in this city recently. The escaping acid filled the building with an irritating odor and smoke from the wood with which it came in contact. The employees were thoroughly frightened, but none was hurt.

Death of William Weightman.—William Weightman, of the firm of Powers and Weightman, well known manufacturing chemists, died on August 25th, aged 90 years. Mr. Weightman, with his partners, was especially interested in the manufacture of quinine and of morphine. Through the sale of quinine to both armies during the civil war the foundation of Mr. Weightman's fortune was laid.

New Almshouse.—The Director of Public Health, Dr. Edward Martin, has recently advertised for bids for erecting some of the buildings on the ground selected for the new almshouse, which is to be separated from the Philadelphia General Hospital, so long known as Blockley. The buildings, first to be erected, are two dining halls, laundry, and four dormitories with recreation rooms. These buildings will be connected with the administration building, which has just been completed, by covered corridors.

Registered Pharmacists and Assistants.—The State Board of Pharmacy held examinations for registered pharmacists and assistants at Williamsport on July 19th. As a result of these examinations the following persons have been licensed by the board: Registered Pharmacists—Edgar K. Ziegler, Frederick L. Geiger, B. Forrest Ginder, William Scalella, Edwin H. Yeagley, Leopold L. Smith, Herman Weber, William B. Riegel, David F. Shull, Jr., John C. Joos, William Pebden, John I. P. Troxell, Merrit B. Shultz, all of Philadelphia; Warren S. Tyson, Norristown; C. W. Zepp, Burlington, N. J. Assistant Pharmacists—Dora Rubin, Anthony Ricca, William A. Dreebelbis, Thomas F. A. O'Conner, Louis Green, William J. Lenters, all of Philadelphia.

GENERAL

Statement of Mortality in Chicago, Ill., for the Week Ending August 27, 1904, compared with the preceding week and with the corresponding week of 1903. Death rates computed on United States Census Bureau's estimated midyear populations of 1,932,315 for 1904 and of 1,873,880 for 1903:

	Aug. 27, 1904.	Aug. 20, 1904.	Aug. 29. 1903.
Total deaths. all causes	472	437	586
Annual death rate per 1,000	12.76	11.82	15.23
By sexes—			
Males	264	254	324
Females	208	183	262
By ages—			
Under 1 year	115	122	155
Between 1 and 5 years	48	33	64
Over 60 years	79	91	93
Important causes of death—			
Acute intestinal diseases	102	108	142
Apoplexy	12	10	8
Bright's disease	26	29	30
Bronchitis	6	6	8
Consumption	52	59	51
Cancer	22	26	30
Convulsions	5	12	12
Diphtheria	6	5	12
Heart diseases	39	22	42
Nervous diseases	19	11	49
Pneumonia	32	25	22
Scarlet fever	2	0	5
Suicide	9	7	10
Smallpox	0	0	2
Typhoid fever	8	4	15
Violence (other than suicide)	37	27	35
Whooping cough	2	7	4
All other causes	93	79	107

State Board of Medical Examiners of New Jersey.—The regular examination will be held at Trenton, N. J., on Tuesday, Tuesday evening, and Wednesday, October 18th and 19th.

Medical Society of the State of New York.—Dr. Wey, president, has appointed the following as the business committee of the Medical Society of the State of New York, with whom all interested in the programme of the next annual meeting of the society, to be held January 31, 1905, February 1, 2, 1905, may communicate: Dr. Henry Flood, of Elmira; Dr. A. Edward Davis. of New York; Dr. Leo H. Neuman, of Albany. F. C. Curtis, M. D., secretary.

French Hospital, San Francisco.—A two story addition is building for this institution at a cost of $20,000.

Woman's Hospital Association, Batavia, N. Y.—Directors of the Woman's Hospital Association, of Batavia, have engaged Miss Maud Williams, of Pennsylvania, as superintendent of the hospital to succeed Miss Gauld, and she will enter upon her duties on Saturday, October 8th.

Tuberculosis Added to the Contagious Disease List in Reading.—The board of health of Reading has ruled that pulmonary tuberculosis is a contagious disease. Hereafter all cases of consumption must be reported to the board, and plans have been made to have houses, in which consumptives have lived, fumigated and thoroughly cleaned after being vacated by the patient.

Western Asylum for the Insane, Hopkinsville, Ky.—Dr. J. M. Ferguson, of Muhlenberg county, was on August 25th named by the Governor of Kentucky as second assistant physician at the Western Asylum for the Insane at Hopkinsville. The appointment is to fill a vacancy caused by the promotion of Dr. J. W. Stephens to an assistant's place at the Central Asylum at Lakeland.

The American Academy of Ophthalmology and Laryngology met at the Brown Palace Hotel, Detroit, on August 25th. A social meeting at the Montclair casino opened the proceedings. Dr. Edward Jackson, of Denver, is the president of the academy. The local entertainment committee consisted of Dr. T. J. Gallaher, Dr. E. W. Stevens, Dr. G. F. Libby, and Dr. D. S. Solly, of Colorado Springs.

Washington, D. C., Hospital for the Insane.—Dr. Henry J. Nichols, on September 1st, will become a medical interne on the staff of the Government hospital for the insane at Washington, of which Dr. William A. White, formerly of Binghamton, N. Y., is the superintendent. Dr. Nichols recently graduated from the medical school of the University of Pennsylvania, and later passed the civil service examination for the Washington position.

Dr. W. H. Forsythe, one of the best known physicians of Louisville, Ky., accompanied by his mother, left on September 1st for Corea, where he goes as a missionary for the medical society to establish a hospital. Dr. Forsythe was for a number of years connected with the Government hospital in the Philippines. He resigned his position as president of the executive board of the Civic League of Louisville, and Dr. G. P. Sprague was elected to succeed him.

Smallpox in Pennsylvania.—Dr. Benjamin Lee, secretary of the State board of health, has sent word to all township and county authorities in the State that it will be futile to relax the efforts to have all communities thoroughly vaccinated. Last month sixty cases of smallpox were reported from various points in the State and nine deaths were recorded. The school boards have been advised to admit no children to the public schools this fall unless they have been successfully vaccinated.

The Pharmacy Law of Virginia is very strict in its regulation of the sale of cocaine. Section 1763 of chapter LXXVIII of the Code provides that no cocaine shall be sold in that State by any person other than a licensed druggist or pharmacist, and that no druggist or pharmacist shall sell cocaine to any person other than a licensed physician, surgeon, dentist, druggist, or pharmacist. Any druggist violating this act is subject to a fine of not less than $25 nor more than $100 for each offense.

Woman Interne Wanted at the Buffalo Children's Hospital.—The appointment of a house physician for the term of one year will soon be made at the Children's Hospital of Buffalo, N. Y. Applicants should be women recently graduated in medicine. The hospital cares for about fifty patients, all children under fourteen years of age. The appointment is without salary, but rooms, table board, and personal laundry are provided. Address Dr. C. Sumner Jones, 695 Delaware Avenue, Buffalo, N. Y.

Woman Physician at Rock Hill, S. C.—Dr. Rosa L. Hirschman, a Charleston young lady who graduated at the South Carolina Medical College and who has been practising medicine in Spartanburg for the past three years, has been appointed resident physician at Winthrop College at Rock Hill. Dr. Hirschman and Dr. Emily Viett, who is now practising in New York, were among the first women graduates at the South Carolina Medical College, and both of them took a high stand in their classes.

Chair of Tropical Diseases, Navy Medical School.—Announcement has been made at the Navy Department that Surgeon P. A. Lovering has been ordered to the Naval Medical School in Washington to assume the new chair of tropical diseases. Because of the extensive duty in tropical countries which officers and men of the navy and Marine Corps are called on to perform as a result of the acquirement of foreign territory, this new chair was thought to be necessary. Surgeon Lovering has already become widely known as an expert in this particular branch of medicine.

Enlarging the North Carolina Medical College.—At a meeting of the faculty of the North Carolina Medical College on August 23rd it was decided to build a new and improved lecture room in the Presbyterian Hospital, for the use of the faculty and the senior class. Up to this time a clinic room has been used for lecturing purposes, but on account of the growth and enlargement of the class, it has been very unsatisfactory, hence the enlarged quarters. The new room will have a seating capacity of about 50, and will have new equipments, besides a reading room nearby for the use of the students. Some of the smaller rooms in the back part of the hospital will be taken out to make room for the contemplated new quarters. Work will probably commence at once, and it is hoped that the new room will be completed by the opening of the fall term, September 28th.

Pacific Society of Railway Surgeons.—The annual convention of the Pacific Society of Railway

Surgeons concluded August 18th in San Francisco, and in the evening the members were guests at a banquet given at the St. Francis Hotel by the outgoing officers. San Francisco was chosen as the meeting place for 1905, and the following officers were elected to serve the coming term: President, Dr. N. W. Morrison, chief surgeon of the Santa Fé, of San Francisco; first vice-president, Dr. H. W. Fenner, of Tucson, Ariz.; second vice-president, Dr. W. O. Spencer, of Huntington, Or.; treasurer, Dr. F. L. Adams, of Oakland; secretary, Dr. J. P. Dunn, of Oakland; member of executive committee, Dr. E. M. Keys; committee on arrangements for the convention next year, Dr. W. B. Coffey and Dr. J. H. O'Connor, of San Francisco, and Dr. D. D. Crowley, of Oakland.

Officers of the Pan-American Medical Congress.—President Amador, of the Republic of Panama, has appointed the following officers of the Fourth Pan-American Medical Congress, to be held in Panama the first week in January, 1905: Dr. Julio Ycaza, president; Dr. Manuel Coroalles, vice-president; Dr. Jose E. Calvo, secretary; Dr. Pedro de Obarrio, treasurer; and Dr. J. W. Ross, Dr. J. Tomaselli, Dr. M. Gasteazoro, committee.

There will be but four sections: Surgery, Medicine, Hygiene, and the Specialties, to which the following officers have been appointed: Surgical Section: Major Louis LaGarde, president; Dr. E. B. Harrick, secretary. Medical Section: Dr. Moritz Stern, president; Dr. Daniel R. Oduber, secretary. Section on Hygiene: Colonel W. C. Gorgas, president; Dr. Henry E. Carter, secretary. Section on Specialties: Dr. W. Spratling, president; Dr. Charles A. Cooke, secretary.

American Microscopical Society.—Members of the American Microscopical Society finished their convention in Buffalo at noon on August 25th, and adjourned until next year to meet at a place to be selected later by the executive committee. Dr. William C. Krauss reported from the nominating committee the following names for the officers of the society for the coming year: President, Henry B. Ward, of Lincoln, Neb.; vice-presidents, Dr. Vida A. Latham, of Chicago; Dr. M. A. Veeder, of Lyons, N. Y.; secretary, Robert B. Wolcott, of Lincoln, Neb.; treasurer J. C. Smith, of New Orleans, La.; custodian, Magnus Pflaum, of Pittsburgh; executive committee, Mrs. Susanna Phelps Gage, of Ithaca; William F. Watson, of Greenville, S. C.; Henry R. Howland, of Buffalo. These nominations were all ratified, the secretary was instructed to cast a ballot for the nominees and they were all elected.

Medical Charity by a Railroad.—The Baltimore and Ohio Railroad will hereafter give free medical attention to the families of employees. This announcement has just been made by the staff of the general physicians and surgeons of the railroad. The letter which makes the announcement comes from Dr. L. R. Trimble, assistant surgeon of the railroad. His statement is concurred in by Dr. L. McLane, of Tiffany, chief surgeon, and Dr. S. R. Barr, superintendent of relief department. In his letter Dr. Trimble says that in many cases it has been found that serious illness in the families of employees has seriously embarrassed the heads of families because of the expense of physicians. The railroad, to relieve these conditions, will take charge of stubborn cases. The staff of physicians does not want to be besieged with small cases or to take charge of the health of the families of all the employees of the company. It is realized that in many cases of disease the physician might want an assistant, or might want consultation. In such cases any member of the family of an employee may be sent to the Baltimore hospital and there receive treatment by the staff of physicians.

The Canadian Medical Association concluded its annual meeting in Vancouver, B. C., on August 27th, after choosing Halifax, N. S., as the next place of meeting. The election of officers resulted as follows: President, Dr. John Stewart, of Halifax; vice-presidents, Dr. McLaren, of Montague Bridge, P. E. I.; Dr. J. B. Black, of Windsor, N. S.; Dr. A. B. Atherton, of Fredericton, N. B.; Dr. Joseph E. Dulse, of Montreal; Dr. H. Meek, of London, Ont.; Dr. W. S. England, of Winnipeg, Man.; Dr. C. M. Wilson, of Edmonton, N. W. T.; Dr. B. E. Walker, of New Westminster, B. C.; local secretaries, Dr. H. D. Johnston, of Charlottetown, P. E. I.; Dr. G. C. Jones, of Halifax, N. S.; Dr. T. D. Walker, of St. John, N. B.; Dr. J. B. Cameron, of Montreal; Dr. James A. Stewart, of Palmerston, Ont.; Dr. Popham, of Winnipeg, Man.; Dr. Hewitson, of Pincher, N. W. T.; Dr. A. S. Munro, of Vancouver, B. C.; executive committee, Dr. G. M. Campbell, Dr. J. Ross, and Dr. C. D. Murray, all of Halifax; treasurer, Dr. H. B. Small, of Ottawa, reelected; general secretary, Dr. George Elliott of Toronto, reelected.

Licensed to Practise in the Province of Quebec, Canada.—The College of Physicians and Surgeons of the Province of Quebec, Canada, have announced the following list of successful applicants to practice:

George E. Beauregard, John George Browne, Raoul Philippe Bonin, Arthur Bergeron, Isaac E. Crack, Thomas Fred. Connelly, Omer Etienne Desjardins, Edgar David, James Robert Goodall, Richard H. M. Hardisty, John Johnson, Watts Grey, Havelock Lippiatt, Philippe Quesnel. G. Marcotte, Louis Pierre Marleau, Narcisse Henri Touchette, Thomas Lankin Wilson, John A. Nutter, Joseph A. B. Godbout, Joseph Elie Belanger, Joseph A. Drouin, P. A. Castonguay, Emile Fortier, Adrien Bonin, Leonidas Blais, Arthur Gagnon, Zephirin Vezina, Charles E. Eaton, Hig. A. Sims, Jean-Marie Pellerin, Frederick P. Yorston, James Joseph McGovern, Arthur De Grandpré, Moïse Verronneau, George Tanner, Arthur Gould, Théophile Laurin, William Allen Cumming, Walter Alphonse Dorion, John James Andrews, Harry Lorne, John Alexander Johnston. William Ernest McKee, Walter Flood, W. William Francis, Misses Esther Kristal, and Mary Rowland. Those who were admitted to the study of medicine as being the holders of B. A., B. Sc., or B. L. degree are: Edouard Champoux, William Marston, H. Le B. Peters, Frader Baillie Gurd, G. Hanel, Fred. P. Yorston, Gaston Morin, Romulus Falardeau, F. O'L. Noiseux, Evariste Lamy, W. L. Holman, Joseph Emile Noel, Albert Auger, H. Bouille, Leonidas Dumont Bladdon. Dufresne Réal, Rivard Edmond, J. B. Ayotte, J. B. Drouin, Adeline Dupont, Napoleon Ferron. Edward Champoux, Henry Le Baron Peters. Evariste Lemay, and William Hollman obtained leave to make their admission date from 1903, Malcolm W. Marston from 1902, and Fred. Yorston from 1900.

Pith of Current Literature.

PRESSE MEDICALE.

July 16, 1904.

1. Influence of Phlebitic Exacerbations on Varicose Veins, By POULAIN.
2. Diagnosis of Hyperchlorhydria by Testing for Soluble Amylaceous Matter, By SURMONT and BOULLANGER.

1. **Phlebitis and Varix.**—Poulain says his studies have shown him that varix often disappears after a phlebitis; that the circulation in the superficial vessels is of less importance than that in the deep ones; that the effect of phlebitis on varix and on local circulation varies greatly, according to the site of the former in the superficial or deep vessels. He cites a case of a woman, aged thirty-seven years, in which a severe phlebitis of the internal saphenous vein completely obliterated it and cured a post-puerperal varix of long standing. A curious fact is the apparent lack of relation between the severity of varix and ulceration. The latter is generally preceded by nocturnal cramps, formication in the affected limb, etc., often not sufficiently severe to attract the patient's attention. The best treatment for varix and phlebitis is the elastic stocking, removed only at night and for bathing. Prolonged tepid baths are useful and alcohol rubbing from below upward is soothing and beneficial. Careful diet and hygiene are important factors in the treatment.

July 20, 1904.

1. Surgical Intervention in Pulmonary Gangrene. Operative Technics, Results, Indications, By AUVRAY.
2. Necropsy of the Spinal Cord; Special Instruments Required, By CHAVIGNY.

1. **Surgery of Pulmonary Gangrene.**—Auvray disparages puncture and injections in this disease and states that pneumonotomy is the only proper treatment. He begins by a large costal resection and then explores the lung with a trocar or the thermocautery. When the pleura is not affected, care must be exercised to prevent its infection or the occurrence of pneumothorax. Adhesions must be brought about, preferably by suture. If the pleura is infected, the cavity communicating with the gangrenous lung must be carefully enlarged and free drainage established. Fragments of the necrosed lung should be carefully removed with the finger rather than with instruments. Lavage is contraindicated on account of the danger of suffocating the patient. With proper after treatment, the operation is usually successful. Possible complications are hæmoptysis, secondary hæmorrhage, bronchopneumonia, secondary infection, and cerebral embolus.

July 23, 1904.

The Neurofibrilli According to Ramon y Cajal, By AZOULAY.

The Neurofibrilli.—Azoulay's article is not comprehensible without reference to the microphotographs that illustrate it.

July 27, 1904.

Second Congress of the French Speaking Physicians of North America, Montreal, June 28 and 30, 1904. Address of Professor POZZI.

Pozzi's Address.—Pozzi, in his address at Montreal, spoke of the coming establishment in Paris of a *pension* specially for the accommodation of French-Canadian students, "who would there be protected from the dangers of the great city."

SEMAINE MEDICALE.

July 20, 1904.

Studies of Spinal Motor Areas, By MARINESCO.

Spinal Motor Areas.—Marinesco states that he has obtained fairly accurate results by studying on the dog the effect of cutting the nerve trunks, their muscular branches, and by removing muscles and cutting nerve roots. He has also utilized amputations, and cases of neuritis and neuroma of the median nerve. The article is exhaustive and can scarcely be summarized.

LYON MEDICAL.

July 31, 1904.

1. Importance of Daily Weighing in the Treatment of Disease Likely to Cause Anasarca. Action of Digitalis and Theobromine on Heart Disease and Bright's Disease, By COURMONT and GENET.
2. Abdominoperineal Amputation of the Rectum. By GOUILLOUD.
3. Catherization with Hot Air in the Treatment of Deafness, By BERNOUD.

1. **Daily Weighing in Anasarca.**—Courmont and Genet found weighing of value in their study of the action of digitalis and theobromine on heart disease and nephritis. Both drugs, when acting as diuretics, are highly dechloridizing. In nephritis, theobromine is the more active. In heart disease, digitalis is better, theobromine being frequently harmful. The curve of weight in either disease is in direct proportion to the extent of the dechloridization. If the weight increases, there is chloridæmia or a præœdematous condition which is an indication for one or other of the drugs. Practically, therefore, daily weighing may advantageously replace, in heart and kidney subjects, the troublesome preservation of the urine and estimation of its chlorides. When the weight is below normal, the patients may be allowed a fairly liberal diet; when normal, salt is withdrawn from the diet; when above normal, digitalis is added to the régime for heart subjects, theobromine for the nephritics.

3. **Hot Air in Deafness.**—Bernoud attributes this treatment to American ingenuity. In his own practice he uses a Beck's electrical apparatus with a Politzer's bag and a sound of silver covered with rubber. He is accustomed to add to the hot air the vapor of *pinus sylvestris* and believes he has obtained good results even in tympanic sclerosis and ankylosis of the ossicles. Subjective noises in the ears disappear rapidly.

MUENCHENER MEDIZINISCHE WOCHENSCHRIFT.

August 16, 1904.

1. Disinfection of the Biliary Passages and Internal Antisepsis, By F. KUHN.
2. Serum Treatment of Acute and Chronic Articular Rheumatism, By MENZER.
3. Heart Weakness and Morphine Injections, By O. ROSENBACH.
4. Specific Influence Upon the Diastatic Ferments in the Blood by Administration of Different Carbohydrates, By M. ASCOLI, and A. BONFANTI.
5. Digalene (Soluble Digitoxine), By M. CLOETTA.
6. Hysterical Stuttering, By L. MERZBACHER.
7. Pathogenesis of Polyneuritis, By S. AUERBACH.
8. Disseminated Fat Necrosis of the Abdomen Without Disease of the Pancreas, By HAFFNER.
9. Endothelioma of the Nasal Cavity, By F. ROEPKE.
10. Simple Tamponade of Cavities, By PROELSS.

1. **Disinfection of the Biliary Passages.**—Kuhn concludes that all bile escaping from a biliary fistula gives evidence of an increasing fermentation which, *in vitro,* completes its fermentation in from twenty-four to thirty-six hours. If medication of a suitable character is administered as a cholagogue, less fermentation is evident in the specimen obtained and what fermentation there is ceases in a certain time, depending upon the quantity and character of the drug. The action of the drugs is shown in from one to two days corresponding to its absorption, and its action is continued, also, longer than the drug is given. The best drug of this character, in cases of inflammatory processes of the biliary passages, is salicylic acid and its derivatives.

2. **Serum Treatment of Rheumatism.**—Menzer has used the streptococcus serum in the treatment of acute and chronic articular rheumatism. He considers it better than former methods of treatment because in chronic forms it brings about a cure or an improvement. It also aids in curing the acute form and appears to foster a cure of the complicating endocarditis. It seems efficacious in preventing a relapse and even in very chronic cases amelioration is noted.

3. **Morphine in Cardiac Cases.**—Rosenbach says that for many years he has observed the excellent effect of hypodermic injections of morphine in acute diseases of the heart, especially in stenocardiac attacks and in œdema of the lungs dependent upon heart disease. He narrates some cases which seem to prove the correctness of his attitude.

5. **Digalene.**—Cloetta speaks well of this soluble preparation of the digitalis plant. It has all the physiological and clinical effects of digitoxine and, on account of its solubility, it can be used subcutaneously by mouth or by rectum. The usual dose is five grains, the maximum daily dose eighteen grains.

ZENTRALBLATT FUER GYNAEKOLOGIE.

July 9, 1904.

1. Delayed or Forced Accouchement in Eclampsia, By A. SIPPEL.
2. Facilitation of Vaginal Puncture, By S. FLATAU.

1. **Eclampsia.**—Sippel formerly took a conservative view of the treatment of eclampsia cases and thus lost three, one of them undelivered. He now states that our knowledge of eclampsia is limited to one thing: That the condition is a consequence and product of pregnancy. Therefore, the line of treatment is very simple in case no improvement follows diaphoretic treatment: immediate delivery under all circumstances. Time alone can tell whether women expectantly treated and delivered later die in a greater proportion of instances than those in whom the uterus is emptied at the earliest moment.

July 16, 1904.

1. Prophylaxis of Postoperative Cystitis in Women, By P. ROSENSTEIN.
2. Bilateral Ovariotomy at the Beginning of Pregnancy; Full Term Child, By E. ESSEN-MOELLER.

1. **Prophylaxis of Cystitis.**—Rosenstein recommends a double catheter—one within the other—of his devising. Both can be simultaneously sterilized, the outer one going only as far as the neck of the bladder. In thirty-four cases in which the catheter was used, but one developed cystitis. Rosenstein says that by this means cystitis can be prevented as far as mechanical means can contribute to this end.

2. **Bilateral Ovariotomy in Pregnancy.**—Essen-Moeller narrates the case of a forty-three year old multipara who had both ovaries removed, each being the seat of a cyst. The right ovary contained a corpus luteum of pregnancy. Early in the following June the woman was delivered of a living child, which subsequently died of a congenital heart lesion. Conception must have occurred shortly before the operation.

ZENTRALBLATT FUER CHIRURGIE.

July 23, 1904.

1. Prophylactic Hæmostasis Before Trephining, By VON HACHER.

1. **Prophylactic Hæmostasis Before Trephining.**—Von Hacher prefers the preliminary suture of the parts of the scalp in which the flaps are to be formed as the best means of preventing profuse hæmorrhage. He also advises forming the flap in such a way that large blood vessels will not lie in the base of the flap. He recommends the peripheral ligation of the flap inwards and outwards to prevent infection, to avoid unnecessary handling of the flap, and to achieve a great saving of time.

July 31, 1904.

1. Open Treatment of Wounds After Transplantation, By F. BRUENING.

1. **Open Wound Treatment After Transplantation.**—Bruening warmly recommends the open treatment of wounds after transplantation when operating under local anæsthesia. The patient is not disturbed for several hours, but compelled to lie in the same position until the primary "gluing" of the parts is completed. A cradle under the bed clothes protects the parts later. Little vesicles of serum which appear about the wound edges must be removed daily. At night a light dressing may be applied for fear of the patient's not retaining a good position. In eight days, as a rule, the flaps are entirely healed.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

August 27, 1904.

1. Ergot in General Practice, By ALFRED T. LIVINGSTON.
2. Xanthoma, By JOHN B. SHOEMAKER.
3. Uncinariasis in the South, with Special Reference to Mode of Infection, By CLAUDE A. SMITH.
4. Linear Nævi. A Few Clinical and Pathological Considerations in Reference to Nævi in Particular, and to Dermatology in General, By M. L. HEIDINGSFELD.
5. The United States Public Health and Marine Hospital Service. Part II. The Service as it is To-day. (A) Organization of the Bureau.
6. Travel Notes. V. Italy and the Great Antimalarial Campaign (*Continued*), By LEWELLYS F. BAKER.
7. Travel Notes. VI. Father Damien, the Leper Hero, By NICHOLAS SENN.

1. **Ergot in General Practice.**—Livingston asserts that inefficient tone of unstriated muscular fiber is a common and serious element of disease. Ergot is the drug which will restore this tone. The author quotes from his experience in order to show that these statements are true. Those interested will do well to consult the original article. If all the author claims for this drug is fact then ergot is destined to fill a long felt want. When properly given ergot will relieve the pain of pneumonia, of appendicitis, of neuritis, of inflammatory states in general, of some neuralgias, the all over ache or indefinite discomfort of developing fevers, the agony of angina pectoris, and intestinal colic. It will destroy the craving for alcohol and for drugs. It will produce sleep in many cases, though it is not strictly a hypnotic. It will prevent surgical shock or greatly mitigate its effects. It renders ether narcosis less dangerous and prevents the subsequent nausea, vomiting, mental excitement, and excessive heart strain. It will do many other things if properly given hypodermatically. The author recommends the following two solutions: The first is solid extract of ergot, one drachm, dissolved in sterile distilled water, one ounce. Filter this solution and afterward add two minims of the purest chloroform and shake gently. The second is solid extract of ergot, one drachm, dissolved in a saturated solution (about two grains to the ounce) of chloretone, in sterile distilled water, one ounce. After filtering the solution, add two grains of chloretone and shake gently. The dose for the adult is from one half to two drachms. When the ergot is properly prepared pain and complications are not to be feared.

2. **Xanthoma.**—Shoemaker reports one case of xanthoma in detail. Illustrations from photographs are given. The ætiology, symptomatology, pathology, diagnosis, and treatment of the disease are reviewed.

3. **Uncinariasis.**—Smith reviews the whole subject of uncinariasis as it occurs in the south. We note only that he has produced the disease in man by inoculation in the following manner: Earth infected with larvæ, four days to four weeks old, was laid on the bare skin of the test subjects. Local irritation occurred in a few minutes. This increased up to the eighth day, then gradually subsided. At the time the soil was placed on the patients the stools were carefully examined, and twice a week thereafter. The examinations were negative until about the middle of the seventh week, when the eggs of the uncinaria appeared in the stools.

4. **Linear Nævi.**—Heidingsfeld recapitulates his paper thus: Linear nævus is an affection, for the most part easily recognized as a type, possessing an unmistakable identity. Great variations in clinical appearance, location, duration, distribution, development, and secondary changes have permitted an endless amount of unnecessary confusion in classification. It possesses an exceedingly varied pathology. Great disparity in histological structure exists between lesions that are clinically similar; great disparity exists between lesions in close proximity; a deceptive histological resemblance often exists between lesions of linear nævi and types of dermatological affection, totally different in character.

BOSTON MEDICAL AND SURGICAL JOURNAL.

August 25, 1904.

1. The Present Status of Hydrotherapy and Other Forms of Physical Therapeutics, By JOSEPH H. PRATT.
2. The Practical Application of Hydrotherapeutic Measures, By CHARLES S. MILLET.
3. Sacral Spina Bifida, with Reference to the Skin Representation of Sacral Nerve Roots, By E. W. TAYLOR.
4. Operations on the Stomach, with Report of Cases (*To be continued*), By JOHN C. MUNRO.

1. **Hydrotherapy.**—Pratt sketches the development of hydrotherapy and the history of its adoption as a part of scientific therapeutics. It is in Germany that this method of treatment has been chiefly developed and finds greatest favor. The author mentions the chief works that have been published on this subject and the principal institutes where physical therapeutics are taught and practised. The various methods are not discussed and no details of treatment are given.

2. **Hydrotherapy.** — Millet discusses those methods of hydrotherapy that are available in ordinary practice. He insists upon the value of this form of treatment in fevers, chlorosis, secondary anæmia, chronic pulmonary, and organic heart disease.

3. **Sacral Spina Bifida.**—Taylor reports one case of sacral spina bifida. The chief points of interest are: The existence of areas of anæsthesia, from lesion of sacral nerve roots, which in general coincide with Head's description of their skin representation. The retention of sexual capacity in spite of extensive destruction of the sacral nerve roots. The absence of marked disturbance of gait in spite of plantar anæsthesia. The practical possibility of physical cleanliness with both vesical and rectal incontinence.

MEDICAL RECORD.

August 27, 1904.

1. The Subtle Power of Radium, By ROBERT ABBE.
2. Concerning Shock; with a Contribution to Its Pathology, By FRANK P. VALE.
3. The Climate of Tidewater Virginia. By W. A. PLECKER.
4. Pyloric Stenosis in Infants, By J. G. WILLIAM GREEFF.
5. The Modern View as to the Ætiology and Treatment of Eczema, By ZAMA FELDSTEIN.
6. A Method for Preventing the Pain Following Clamp and Cautery Operations for Hæmorrhoids, By HOWARD LILIENTHAL.

1. **Radium.**—Abbe has cured common warts, lupus, epithelioma, and sarcoma with radium. He details a number of experiments that have been conducted to determine the action of radium. Two of these experiments may throw some light on its therapeutical action. (1) If seeds are exposed to radium for a few days before planting they either do not grow or show feeble powers. (2) If meal worms are exposed to radium many will die, but those which live on show such retardation, that while those of the control test pass through the cycle of life, becoming beetles, which lay eggs, which grow to worms during the allotted three months, and repeat this cycle three or four generations, the radium worms still remain meal worms. These two observations may explain why in some cases of malignant disease, apparently cured by radium, microscopy shows in portions of excised tissue the presence of malignant cells. May the explanation be that these cells have been robbed of their vitality like the seeds and worms referred to? In radium emanations we have to deal with a very subtle force, unlike that of Finsen light or Röntgen rays, though strongly resembling them in effect; and efficient in some cases in which these fail. The Becquerel rays given off by radium may be rated as much stronger than Finsen light as they are weaker than Röntgen rays.

2. **Shock.**—Vale does not believe that shock is to be attributed entirely to vasomotor paralysis. He holds that it is due to the more or less total arrest of the functions of every cell in the body. This results in an outpouring of lymph into the tissues in excess of normal and a consequent inspissation of the blood. In shock there is always an increase in the specific gravity of the blood and a decrease in that of the tissues. This is true except in those cases where there is hæmorrhage or a local outpouring of lymph, as in burns or peritoneal injuries or inflammations.

4. **Pyloric Stenosis.**—Greeff does not believe that pyloric stenosis is ever congenital. As yet nothing is known as to the origin of the condition. He reports one case in which the diagnosis was made during life. Operation was resorted to and the infant died twelve hours later. Autopsy confirmed the diagnosis.

5. **Eczema.**—Feldstein is a believer in the parasitic origin of eczema. The only thing necessary to produce eczema is a congestion of the skin, which may be produced by constitutional ailment or defect, or by outside influences, such as cold or chill. The parasite, having been once called into activity, the primary cause can be cured, but the effect, *i. e.,* the parasite, remains until destroyed by a parasiticide sufficiently penetrating to establish contact, and sufficiently stimulating to restore the skin to its natural activity. Ointments are generally to be condemned, as they heal the skin superficially and prevent the penetration of parasiticide agents. Toxines accumulate and a new outbreak will occur.

6. **The Clamp and Cautery.**—Lilienthal makes the following suggestion for the relief of the pain which attends clamp and cautery operations for piles: Immediately after the clamping and burning have been completed, six or seven radiating incisions through the skin, well into the subcutaneous tissue, are made with scissors. There is rather smart bleeding, which, however, is easily checked by a little pressure and a dry dressing. In six hours a wet dressing may be applied. There is a free flow of serum from these incisions for the next day or two. Œdema, with its danger of infection, is absent and the patient feels perfectly comfortable."

MEDICAL NEWS.

August 27, 1904.

1. Delirium from Nervous Shock, By PEARCE BAILEY.
2. A New Portable Sphygmomanometer; Also a Blood Pressure Chart, By THEODORE C. JANEWAY.
3. Osteoplastic Amputations, By ALEXIS V. MOSCHCOWITZ.
4. Need of More Accurate Knowledge in the Diagnosis and Treatment of Chronic Suppurative Otitis Media, By JAMES F. MCCAW.
5. Intestinal Obstruction Following Appendicitis Operations. Report of Eighty-six Cases (*To be continued*), By CLARENCE A. MCWILLIAMS.
6. Aseptic Catheterization of the Urinary Passages, By M. KROTOSZYNER, and W. P. WILLARD.
7. Valuable Suggestions from the Inspection of Urine, By IRA S. WILE.
8. Quantitative Albumin Determinations, By KARL M. VOGEL.

1. **Delirium from Nervous Shock.**—Bailey has found few recorded cases of delirium that can be attributed to nervous shock. The test for such cases is that there must be an absence of predisposition or other causes and a nervous shock of great intensity. He reports one personal case and six from the literature. The symptoms of delirium from nervous shock are strikingly similar to those of the insanity characteristic of head injuries. It is highly probable that traumatic delirium is due, not to the mechanical disarrangement of brain constituents, but to changes in blood supply and pressure, and in brain pressure. It seems reasonable to suppose, therefore, that traumatic delirium and the delirium from emotional causes are closely allied in pathogenesis, as they are in their clinical aspects.

3. **Osteoplastic Amputations.**—Moschcowitz's paper is based on the following operations performed by the osteoplastic method. One amputation of the thigh; one Ssabanejeef amputation at the knee; three amputations of the leg; one amputation at the ankle joint; one Pirogoff amputation; and one amputation of the thumb. The author is much in favor of the method. Under strict aseptic conditions the results are perfect. Regarding the indications: As a general rule it might be said, that it is indicated in every amputation, in the upper extremity as well as in the lower, with the exception of the following two, first, in all those cases in which the general condition of the patient demands a hasty termination of the operation, and second, in those cases in which the nutrition of the parts (diabetes, syphilis, etc.) is so poor that there is danger of necrosis of the osteoplastic flap.

4. **Chronic Suppurating Otitis Media.**—McCaw concludes: (1) To chronic otorrhœa is not given the importance that its gravity demands. (2) Treatment should be based on the pathological condition present and proper attention to the nose and nasopharynx, with appropriate treatment to the middle ear will yield good results in a large percentage of cases. (3) Where caries is limited to the ossicles and there are no contraindications, ossiculectomy is the operation of choice. (4) Cases presenting symptoms of extension beyond the tympanic cavity should be subjected to radical operation.

6. **Aseptic Catheterization.**—Krotoszyner and Willard, from personal experiments and from the work of others, reach the following conclusions as to the best ways of sterilizing catheterization instruments: *(a)* Soft rubber catheters: Boil five minutes, preferably in sodium chloride solution, care being taken that the solution fills the lumen of the catheter. As a matter of precaution the catheter should be washed with soap spirits and running water after use. *(b)* Hard rubber and silk and cotton woven catheters: Boil five minutes in a saturated solution of ammonium sulphate. Each instrument should be wrapped separately in gauze. *(c)* Ureter catheters: Fold and wrap in a towel so that their surfaces are kept apart, and boil for five minutes in a saturated solution of ammonium sulphate. *(d)* Cystoscopes: Wash in soap spirits and water, then vigorously rub them for two minutes with two different pieces of gauze, wet with soap spirits, and then with alcohol for one minute. The channel for the ureter catheter must be cleansed out by means of a brush.

8. **Quantitative Determination of Albumin.**—Vogel asserts that all the volumetric methods for quantitative determination of albumin are inaccurate. Lately the method of Wasiliew has been urged. The author has tested its accuracy and has found that the method gave fairly accurate results for urines containing more than .15 to .2 per cent. of albumin (the highest strength of urines tested was .27 per cent.), but that below this limit the percentage of error was so inconstant and high as to deprive the method of all claims to accuracy.

AMERICAN MEDICINE.

August 27, 1904.

1. Abstract of Paper Reporting 615 Cases, with Operations Done at the Albany Hospital from March 1, 1902, to March 1, 1903, with Remarks, By Albert Van der Veer.
2. The Injection Treatment of Internal Hæmorrhoids, By Collier F. Martin.
3. The Beneficent Agency of Peritoneal Exudates. Adhesions, Aperistalsis, and Meteorism in Peritonitis, By Horace G. Wetherill.
4. Retrodeviations of the Uterus, By Ernest J. Mellish.
5. Treatment of Chronic Colitis, By Jesse Shoup.
6. Paraphimosis: Its Management and Treatment, By Charles S. Hirsch.
7. A Theory of the Symptom Reflex, By T. Horace Evans.

1. **Report of 615 Operations.**—Van der Veer's paper is an abstract of an address. The variety of affections treated was very great and ranged from fractures to endometritis. The author's remarks are general in character. Five cases are reported in some detail. No general statistics are given.

2. **Internal Hæmorrhoids.**—Martin reviews the development of the treatment of hæmorrhoids by the injection method. He holds that the prejudice which exists against this form of treatment is due to an imperfect understanding of the necessary technics. His own method of operating is briefly as follows: (1) Examine the patient. (2) Divulse the sphincters under nitrous oxide. (3) Apply hot compresses for five minutes after this operation. (4) Give patient a rest of from four to seven days. When he returns for treatment: (1) Place in Sims's position. (2) Wash off anal skin. (3) Make digital examination to find state of muscle. (4) Insert conical speculum with obturator. (5) Remove obturator. (6) Select largest hæmorrhoid for treatment. (7) Let patient prolapse this into speculum by coughing. (8) Swab off surface of piles with some antiseptic solution. (9) Inject from .42 cc. to .60 cc. (7 m. to 10 m.) directly into the center of the pile. (10) Withdraw the speculum *before* removing the hypodermic syringe. (11) Insert a suppository of ichthyol .18 cc. (3 m.). (12) Inject only one pile at a treatment. (13) Make the treatments from 4 to 7 days apart. (14) Insist upon a daily evacuation of the bowels. The author has treated 350 and his father 4,000 cases by this method and the results have always been good. The patient need not stop work while under treatment. From three to twelve injections will as a rule be necessary to effect a cure.

3. **Peritonitis.**—Wetherill holds that peritoneal exudates, adhesions, aperistalsis, and meteorism are to be looked upon as beneficent agencies for the control of peritoneal infection. He asserts that exudates and adhesions tend to be absorbed when the diseased focus is removed and with time usually disappear entirely. When present their function is to wall in the infected area. Aperistalsis is a term which should be adopted to describe what is generally known as "intestinal paralysis." The former term implies rest, the latter a condition to be combated, and rest is what is needed in abdominal inflammations. As to meteorism its exact cause is not known. The author holds that it is not due to intestinal decomposition. There is danger of autointoxication with extreme meteorism and arrested peristalsis, yet the evils to be feared from this source are insignificant compared to those due to increased absorption of toxines, from the peritoneal cavity, brought about by stimulating peristalsis. In cases of so called intestinal paralysis the only treatment should be stomach and colon washings.

4. **Retrodeviations of the Uterus.**—Mellish discusses retrodeviations of the uterus in a formal manner. An abbreviated summary of his paper follows: (1) Rarely, retroversion is congenital, although it is common in virgins. (2) It is essentially a pathological condition, present in at least 15 per cent. of all gynæcological patients. (3) The pessary will effect a cure in a large percentage of the cases. (4) Surgical treatment of retrodeviations is abso-

lutely essential in a large proportion of the cases. (5) The Alexander-Adams operation is right in principle, and will, more or less modified, maintain its position as a classical operation. (6) No method of shortening the round ligaments within the abdomen will effect a cure in nearly all cases. (7) The Gilliam modification of the Alexander-Adams operation is the operation of choice. (8) Ventral suspension and ventral fixation are unphysiological operations. They should not be performed in the cases of patients susceptible of childbearing. (9) Vaginal operations for retrodeviations in fruitful women are mentioned only for condemnation.

5. **Chronic Colitis.**—Shoup advises the following treatment for chronic colitis: (1) Treat the attack of pain which precedes the passage of mucus by a hypodermic of morphine and atropine, and promote thorough evacuation of the bowels by large doses of castor oil by the mouth, and high enemas of oils or of alkaline solutions. (2) Select diet to suit the individual case, after a chemical examination of the stomach contents has been made. (3) Assist digestion and allay fermentation. (4) Keep the bowels open by means of oils by the mouth. (5) Apply suitable support to overcome any ptosis of the abdominal organs. (6) Local treatment by means of astringent enemas and oils, and topical application of the same when necessary. (7) See that the patient gets sufficient rest in the recumbent position, and, when practical, a change to the air of the mountains or seashore.

LANCET.

August 13, 1904.

1. On the Value of the Addition of Sodium Citrate to Cow's Milk in Infant Feeding, By F. J. POYNTON.
2. Infective Cyclitis (So Called Sympathetic Ophthalmia), By H. P. DUNN.
3. Suggestions for the Prevention of Puerperal Infection in Private Practice, By J. W. BYERS.
4. Nephritis in Infantile Scurvy, By G. F. STILL.
5. "Interrupted Circulation" as a Therapeutical Agent, Illustrated in Two Cases of Rheumatoid Arthritis, By W. EWART.
6. An Epidemic of Acute Ophthalmia, By S. SNELL.
7. The Prevalence of Cancer and Its Increase, By W. R. WILLIAMS.
8. Paralysis from Lesion of the Upper Part of the Brachial Plexus, By R. T. WILLIAMSON.
9. A Case of Anterior Dislocation of the Semilunar Bone of the Wrist By E. W. H. GROVES.
10. A Case of Sloughing Pancreas; Death from Secondary Hæmorrhage, By W. H. BROWN.

1. **Infant Feeding.**—Poynton states that the advantages of adding sodium citrate to cow's milk in infant feeding, are as follows:—1. It renders the curd of cow's milk more easily digestible. 2. It is cheap. 3. It is convenient to handle, easy to control, and progressive in principle. 4. It allows the milk to be given in a more concentrated form and thus avoids to some extent the danger of underfeeding. 5. There is no danger of scurvy. 6. Given as a medicine it gains the confidence of the mother. The indications are (a) as a routine for weaning a healthy infant on to cow's milk; and (b) for correcting milk dyspepsia. The drawback is a tendency to constipation, which is, however, easily controlled. The limitations are: 1. In rare cases of complete intolerance of cow's milk. 2. In severe cases of gastroenteritis from impure milk. 3. In organic disease, such as congenital hypertrophic stenosis. 4. In very intractable cases which have been subject to all sorts of different methods beforehand. A good working formula is one grain of sodium citrate to the ounce of milk.

2. **Infective Cyclitis.**—Dunn holds that so called sympathetic ophthalmia commences in the ciliary region of the injured eye and is caused by a specific microorganism: this organism creates a toxine which is conveyed by continuity of tissue, presumably by the lymph channels to the ciliary region of the healthy eye, in which by its irritating presence it causes a severe form of iridocyclitis. "Sympathetic ophthalmia" is therefore a two-fold inaccurate term, and should be dropped in favor of infective cyclitis. The disease, formerly so frequent in its occurrence and so virulent in its attacks, has become so infrequent that it is almost a pathological curiosity. The great decrease in frequency and virulence is directly due to the observance of the principles of antisepsis. The author thinks it probable that infective cyclitis will become almost unknown. Although the specific organism has as yet not been isolated, yet we know how to successfully avert and combat the disease.

3. **Puerperal Infection.**—Byers tells us that the following precautions must be observed in order to prevent the occurrence of puerperal infection in private practice: 1. Nurses and students should be taught clearly the risks of vaginal examination and the superiority in every way of abdominal palpation. 2. The cause of puerperal infection should be more clearly taught—that it is always introduced from without. 3. All meddlesome interference should be avoided, as in at least seventy-five per cent. of all cases labor is a natural process. 4. A careful general examination early in pregnancy. 5. A careful abdominal examination a few weeks before the expected date of confinement. 6. The immediate repair of any laceration of the pelvic floor following delivery.

4. **Infantile Scurvy.**—Still calls attention to the fact that true nephritis may occur in infantile scurvy, and reports two cases occurring in infants aged eight and eleven months respectively. Hæmaturia and slight albuminuria occur in scurvy, and are simply part of the general hæmorrhagic tendency.

5. **"Interrupted Circulation."**—Ewart reports two cases of rheumatoid arthritis treated by periodical interruptions of the circulation of the affected joints, the method being based upon the observations of Thomas, who obtained improved union of fractures by "damming the circulation" above and below the lesion. Cushing has also reported the cure of a case of Raynaud's disease by the tourniquet. In both the cases here reported the results so far obtained have been most satisfactory, but their advanced articular and periarticular changes and the resulting stiffness will need a long course of treat-

ment. The limb above the affected joint is padded, and a loop of strong rubber tubing is passed around, and tightened and relaxed by hand at intervals of a few seconds.

BRITISH MEDICAL JOURNAL.

August 13, 1904.

(*Seventy-second Annual Meeting of the British Medical Association. Section of State Medicine.*)

1. Discussion on Standards of Ventilation, By J. S. Haldane, H. Jones, and Others.
2. Discussion on Compressed Air Illness, or Caisson Disease, By T. Oliver, L. Smith, and Others.
3. The Influence of Antenatal Conditions on Infantile Mortality, By G. F. McCleary.

Section of Navy, Army, and Ambulance.

4. Discussion on Malta Fever, By D. Bruce, P. W. Bassett-Smith, and Others.
5. A Naval Surgeon's Notes, By J. L. Thomas.
6. The General Hospital in War: Its Working and Staff. By C. R. Kilkelly.
7. Is the Widespread Slight Training in Ambulance Work Beneficial to the Community? By S. Hamilton.
8. The Organization of the Treatment of Syphilis in the Navy, By F. H. A. Clayton.

1. **Ventilation.**—Haldane discusses the various ways in which the air becomes vitiated, and the influence of the same on health and comfort:—poisonous and unpleasant gases and vapors, dust, chemical and organic products of respiration, impurities due to illumination, bacteria, etc. He concludes that the bad effects of vitiated air are due to specific causes which can be dealt with more effectively in other ways than by indefinitely increasing the amount of fresh air. It is impossible actually to measure the amount of air supplied from the outside: the best standard of ventilation is that of Pettenkofer, which is based on the proportion of carbonic acid in the air. The standard recommended by the author is twelve volumes by day and twenty by night with gas burning.

2. **Caisson Disease.**—Oliver states that the symptoms of compressed air illness or caisson disease are largely the result of too rapid decompression, and are due to the presence of gaseous emboli in the capillaries or to the escape of gas from the blood into the surrounding tissues with rupture of small blood vessels. This view has been demonstrated by exposing frogs and bats to a pressure of twenty atmospheres and rapidly decompressing them, when bubbles of air can be observed in the small blood vessels, the images of which can be seen on the lantern slide. The air bubbles can be seen plugging the blood vessels and ultimately arresting the circulation again. On recompressing the animals the gas is again driven into solution, the blood corpuscles anew take up their position in the vessels, and the circulation is reestablished. Victims of the affection complain, shortly after leaving the air lock, of pains in the limbs, mostly about the knees, which they call the "bends." Nothing can be seen or felt in the affected muscles. In addition to "bends," the men may have giddiness, epistaxis, or bleeding from the ears. There may be loss of power in the legs, which may last some hours, days, or months, and yet be ultimately recovered from. With the loss of power in the legs there is usually inability to empty the bladder. Frequently also there is loss of sensation in the legs. All applicants for work should be medically examined. Men subject to intemperance, colds in the head, deafness, lung trouble, heart disease, or albuminuria, should not be allowed to work in caissons. Short and thin men stand the work better than tall stout ones. Younger men do better than old, and the longer the shift the greater the danger.

4. **Malta Fever.**—Bruce discusses his subject under the following heads: 1. The natural history of the micrococcus melitensis. This organism, which is undoubtedly the cause of the disease, has as yet never been found in outside nature. 2. Mode of entrance into man. This is a subject of which we are very ignorant, beyond the fact that the smallest quantity of the virus introduced under the skin gives rise to the disease. Feeding experiments have been negative, and it is unlikely that Malta fever is an insect borne disease.

Bassett-Smith has studied the ætiology of Malta fever from a naval standpoint, and has arrived at the following conclusions:

1. The disease shows no sign of decrease in incidence in H. M. Navy. 2. Both officers and men suffer severely; but the percentage of young officers and men in early adult age is proportionately great. 3. All ships appear to be equally affected, according to the time spent by them in Malta harbor, the permanent harbor ships giving the most cases. 4. It is very frequently the case that men contract the fever while in Malta hospital when admitted for other diseases, and the nursing staff there show a great tendency to develop the disease. 5. The greatest incidence of cases is during the months of May and June. 6. In the fleet there is no evidence of infection being received from the shore, other than through the agency of wind carried germs. 7. The organism can retain its vitality for a considerable period when desiccated, but dies in about five days in sterile fresh and sea water and urine, but remains active a long time in sterile milk. 8. The organism is very virulent in laboratory cultures, readily causing attacks when taken in by the mouth or through accidental inoculation. 9. The organism is present in the peripheral blood in all cases during the early stages and in severe pyrexial relapses, and in the afebrile intervals, and following cachexia, it is not demonstrable, but in no case is it very abundant. 10. The disease may remain latent for several months, and relapses may occur for a period of two years at least, but when once completely cured it gives an immunity from further attacks.

5. **Effect of Gun Fire.**—Thomas discusses the effects produced by the concussion due to the firing of the big guns on battle ships, especially as regards the hearing. When a sound ear is so injured we look for (a) a ruptured membrane tympani, or (b) a permanent deafness due to repeated injury of the delicate nerve terminals in the internal ear, this being frequently spoken of as "gun deafness," (a) may be said to be curable, if attended to at once. In (b) the deafness is irreparable.

Letters to the Editor.

THE PHYSICIAN IN GENERAL LITERATURE.

303 AMSTERDAM AVENUE,
NEW YORK, *August* 15, 1904.

To the Editor,

Sir: In the interesting summary of Professor Albert H. Smyth's lecture and your comments thereon, contained in the *Journal* of August 13th, under the title Contributions to General Literature by Physicians, the examples given are without exception taken from the literature of England and America. The admirers of Dr. Conan Doyle will miss his name. The list might have been almost indefinitely extended if it had been made to include writers of other countries. To all physicians who are lovers of books there will at once occur at least two names, one French the other German, which have achieved an immortal place in the brilliant galaxy of medical men who have adorned general literature. These are Dr. Rabelais and Dr. Schiller. In the wealth of erudition, humor, and satire contained in the works of Rabelais there are many passages which reveal the medical knowledge of the author. It is not perhaps generally known that, although Rabelais died in 1553, seventy-five years before the publication of Harvey's *Exercitatio de motu cordis et sanguinis,* he had a fairly clear and accurate conception of the circulation of the blood. The following extract is contained in Chapter XXXI, Book III, of his translated works: "Contemplate a little the form, fashion and carriage of a man . . . and you shall see how all the arteries of his brains are stretched forth, and bent like the string of a cross bow, the more promptly, dexterously, and copiously to suppeditate, furnish, and supply him with store of spirits, sufficient to replenish and fill up the ventricles, seats, tunnels, mansions, receptacles, and cellules of the common sense; of the imagination, apprehension, and fancy; of the ratiocination, arguing, and resolution; as likewise of the memory, recordation, and remembrance; *and with great alacrity, nimbleness, and agility, to run, pass, and course, from the one to the other, through those pipes, windings, and conduits which to skilful anatomists are perceivable at the end of the wonderful net, where all the arteries close in a terminating point; which arteries, taking their rise and origin from the left capsula of the heart, bring through several circuits, ambages, and anfractuosities, the vital spirits, to subtilize and refine them to the thereal purity of animal spirits.*"

Divested of its archaic verbiage and quaint redundancies, this is not a bad statement for the sixteenth century of the main facts in the physiology of the circulation.

Schiller received a medical education at Stuttgart under the tyrannical tutelage of the Duke of Würtemburg, and in 1777 was awarded three prizes in practical medicine, materia medica, and surgery. He received an appointment as an army surgeon and served for a time in a regiment of grenadiers at a salary of eighteen gulden a month. As a practitioner, however, he was not a success, chiefly, it would appear, on account of his fondness for enormous doses and violent drugs. The regimental apothecary was forbidden to dispense his prescriptions until they had been inspected and modified by his superior officer. In an anonymous criticism of his first play, *Die Räuber,* Schiller says of himself: "He would seem to have as great a liking for strong doses *in emeticis* as *in æstheticis;* I would rather give him ten horses to cure than my wife." It is a singular fact that, unlike the literary productions of most medical men, there is in Schiller's writings scarcely a trace of his early medical experiences. To him the practice of physic was an odious and irksome task, he almost starved on his miserably insufficient pay, and in desperation the unhappy surgeon obeyed the call of his divine creative genius and fled from the army in disgrace as a deserter. This ended his career as a doctor.

HENRY L. SHIVELY.

SERVETUS AND HARVEY.

126 EAST TWENTY-NINTH STREET,
NEW YORK, *August* 14, 1904.

To the Editor,

Sir: In one of our literary magazines there has appeared an article entitled *Who Discovered the Circulation of the Blood?* which commences as follows: "One by one our idols are shattered. The popular belief, which has been certainly fostered by medical and other historians, that the circulation of the blood was discovered by William Harvey in 1628, is controverted by an editorial writer in *American Medicine* (July 2d). He examines the claim made by the countrymen of Michael Servetus, who was burned as a heretic by John Calvin in 1553, that the circulation of the blood was known to him three quarters of a century before Harvey's day, and concludes that we must acknowledge its justice." Then follows a quotation from a translation of Servetus's writings, and this, according to the editorial in *American Medicine,* constitutes a much more lurid account of the circulation than that written by Harvey, which this writer declares to be "verbose and somewhat muddled." Not only physicians but men of education all over the civilized world know that Servetus discovered indeed the pulmonic circulation, but that he has not the slightest claim to the discovery of the systemic circulation. This fact is established beyond all doubt, and it is surprising how the writer in *American Medicine,* by his remarkable version, furnishes sensational stuff for literary magazines.

A. ROSE.

THE IDENTIFICATION OF THE HOOK WORM.

CHANGTEH, HUNAN,
CHINA, *June* 22, 1904.

To the Editor,

Sir: I notice that the subject of ankylostomiasis is receiving considerable attention in the United States, especially in the South. We frequently have cases here, and I have spent some time studying the small but mighty blood sucker. Recently I have been trying to stain and mount specimens containing the ova and have succeeded in staining, but not in mounting. As those know who have examined for this egg without staining, a thick specimen or too much illumination will cause the delicate and almost colorless ova to be overlooked. I find that the following method aids greatly in the search for the elusive egg. The specimen to be examined is brought to a semiliquid condition by adding water if necessary, and a drop is placed on a glass slide and covered with a slip, which is pressed down moderately until the specimen is evenly spread. If any lumps prevent even spreading, they should be removed until the cover slip will rest evenly on the slide. The slip is next slid off on the plane of the slide, and the specimen is air dried. Stain with Jenner's stain for two minutes, wash for ten seconds, drain off the excess of water, and examine while still wet, using moderate pressure to flatten the egg. I use a two-third objective with a one inch eye piece. The field is stained reddish purple while the eggs are of a delicate yellow, their shells and segmented yolks showing beautifully if the specimen is a recent one. If the stained specimen is thick, it makes no difference, as the contrast is so marked between the eggs and the other elements.

I notice that some American writers mention "ground itch" as a concomitant of hook worm disease. I should like to know more about this condition. None of our cases has had any skin eruption. Perhaps some of your readers will enlighten me. O. T. LOGAN.

QUACKERY.

3904 LACLEDE AVENUE,
ST. LOUIS, *August* 20, 1904.

To the Editor,

Sir: "Let us hope that the Blantyre bonesetter will not cast covetous eyes upon America as a fruitful field for his operations, but will leave us to work out our own salvation among the "isms" and "pathies" which surround us."—*St. Louis Medical Review,* August 13, 1904.

These are the closing words of a rather cleverly written article on the "bonesetter" who is at present enjoying a renumerative notoriety in some parts of England.

Is a quack really such an undesirable individual? There are three points of view from which we must examine this question. We must consider the public at large, the medical profession, and the individual practitioner. The public at large suffers frightfully from pretenders, both in and out of the profession. The individual insists upon being treated according to his whims and fancies, and although he is in no position to judge of the value of this treatment, he resents any advice from those who are in a position to know whereof they speak. Every remark upon this subject by a medical man is looked upon as an expression of professional jealousy. The profession at large suffers very much from pretenders within the profession, but not at all from those out of it. The average mentality of the profession is so far superior to that of the pretenders that the intelligent public always (slowly) sees the pleasing contrast.

Those men outside the profession who are persistingly successful should not be classed as pretenders, because as a rule they have a good foundation of scientific knowledge upon which to work. The titles under which they practise act surely disadvantageously to them. The individual practitioner, in whose defense nine tenths of the angry articles on the subjects are written, should not take these fellows too seriously. True ability alone can bring continued success.

In a liberty-loving community, it is hard so to frame a law that it will prevent the periodical outburst of enthusiasm in favor of some form of quackery. In view of these facts it is very hard to suggest any change in the present condition of affairs. In the first place, the tone of the journalistic remarks should be changed. We should stop considering the welfare of the profession, which is really not involved; but should consider the welfare of the deluded public, which insists upon following its worthless impulses, and only comes gradually to a correct understanding of the condition. The line of demarcation between the regular and the outlaw practitioner can be made even more plain by increasing the knowledge and skill of the former. Then, if every man were labelled, every "pathist" had his theories pinned on his sign, and no man was permitted to call himself simple Dr. so and so, excepting the regular practitioner, we could help the public in spite of its simple self.

W. C. GAYLER.

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International Congress of Arts and Science.—This congress, which meets at St. Louis, September 19th to 25th, includes a section in medicine connected with which are the following physicians:

Chairman, Dr. William Osler. Johns Hopkins University; speakers, Dr. William T. Councilman, Harvard University; Dr. Frank Billings, Rush Medical College. Section a. Public Health.—Chairman, Dr. Walter Wyman, Surgeon-General of the United States Marine Hospital Service; speakers, Professor William T. Sedgwick, Massachusetts Institute of Technology; Dr. Ernst J. Lederle, Commissioner of Health, New York city. Section b. Preventive Medicine.—Chairman, Dr. Joseph M. Mathews, president of the State Board of Health, Louisville, Ky.; speakers, Professor Ronald Ross, F. R. S., School of Tropical Medicine, University College, Liverpool; Professor Angelo Celli, University of Rome. Section c. Pathology.—Chairman, Professor Simon Flexner, director of the Rockefeller Institute; speakers, Professor Felix Marchand, University of Leipzig; Professor Johannes Orth, University of Berlin. Section d. Therapeutics and Pharmacology.—Chairman, Dr. Hobart A. Hare, Jefferson Medical College; speakers, Sir Lauder Brunton, F. R. S., London; Professor Mathias E. O. Liebreich, University of Berlin. Section e. Internal Medicine.—Chairman, Professor Frederick C. Shattuck, Harvard University; speakers, Professor Clifford Allbutt, F. R. S., University of Cambridge; Professor William S. Thayer, Johns Hopkins University. Section f. Neurology.—Chairman, Professor Lewellys F. Barker, University of Chicago; speakers, Professor Shibasaburo Kitasato, University of Tokio; Professor James J. Putnam, Harvard University. Section g. Psychiatry.—Chairman, Dr. Edward Cowles, Boston; speakers, Professor Th. Ziehen, University of Berlin; Dr. Charles L. Dana, New York city. Section h. Surgery.—Chairman, Professor Carl Beck, Post Graduate Medical School, New York; speaker, Professor Nicholas Senn, Rush Medical College, Chicago. Section i. Gynæcology.—Chairman, Professor Howard A. Kelly, Johns Hopkins University; speakers, Dr. L. Gustave Richelot, member of the Academy of Medicine, Paris; Professor John C. Webster, Rush Medical College, Chicago. Section j. Ophthalmology.—Chairman, Dr. George C. Harlan, Philadelphia, Pa.; speaker, Dr. Edward Jackson, Denver, Col. Section k. Otology and Laryngology.—Chairman, Professor William C. Glasgow, Washington University, St. Louis; speakers, Sir Felix Semon, C. V. O., Physician Extraordinary to the King, London; Dr. J. Solis-Cohen, Jefferson Medical College. Section l. Pædiatrics.—Chairman, Professor Thomas M. Rotch, Harvard University; speakers, Professor Theodore Escherich, University of Vienna; Professor Abraham Jacobi, Columbia University.

Proceedings of Societies.

AMERICAN GYNÆCOLOGICAL SOCIETY.

Twenty-ninth Annual Meeting, held in Boston, May 24, 25, and 26, 1904.

(Concluded from page 427.)

The Preventive Treatment of Pelvic Floor Lacerations.—Dr. J. CLIFTON EDGAR, of New York, read a paper in which he said that the most important part of the management of the second stage of labor was the prevention of pelvic floor lacerations. Lacerations of the fourchette in primiparæ, and superficial tears about the vulvar orifice in both primiparæ and multiparæ were often unavoidable and usually readily healed with simple asepsis. Deep lacerations were avoidable in normal, ordinary cases of labor.

The factors which tended directly or indirectly to produce pelvic floor lacerations were numerous, but for convenience he arranged these in three major classes. These were concisely stated as: 1. Too rapid expulsion of the fœtus, so that tearing instead of stretching resulted. 2. Relative disproportion in size between the presenting part and the parturient outlet. 3. A faulty mechanism of labor, whereby the larger circumference of the head and shoulders than necessary passed through the parturient outlet.

From an extended clinical experience, he could speak most enthusiastically of the preliminary digital stretching of the vulvar outlet in primiparæ, and especially in elderly primiparæ, as a prophylactic measure in perineal protection. The author then discussed episeotomy, head delivery, and cleidotomy.

Regarding shoulder delivery, he firmly believed from years of careful clinical observation that the posterior shoulder was, in many instances, the cause of deep pelvic floor laceration; furthemore, that moderate ruptures caused by the passage of the head were often increased and rendered serious by the subsequent passage of the posterior shoulder.

He had been most successful with the following method of shoulder delivery, and either the lateral or dorsal posture of the patient could be used at will. This method was not new: 1. The delivery of the shoulders was delayed, if possible, until nearly complete rotation of the bisacromial diameter had taken place. 2. The fœtal head was taken in the hand and gently raised or pushed, so as to bring the anterior shoulder well up behind the symphysis, thus bringing the cervicoacromial diameter of the fœtus to the outlet instead of the bisacromial. 3. The posterior shoulder was now allowed to pass out spontaneously, and whenever possible manual extraction should be avoided, as this increased the risk of perineal rupture. 4. During the detention of the anterior shoulder behind the symphysis, the hand of the opposite arm lying across the fœtal chest would usually soon appear in the vulva. He had found that delivery might be safely assisted by slowly flexing this forearm and arm out through the vulva, and thus delivering the posterior shoulder by slight traction on the posterior arm. 5. Should the foregoing be impracticable and delay in the expulsion of the posterior shoulder occur, he had found gentle traction upon the head, the fingers encircling the neck, to be preferable to traction with a finger in the axilla. 6. Should there be delay in the delivery of the anterior shoulder, after expulsion of the posterior, it was best remedied by making traction directly downward, with the hands placed on the sides of the head, taking care not to make too great pressure on the perinæum. As a last resort, traction might be made by a finger in the axilla.

Immediate Repair of Lacerations of the Perinæum, With Special Reference to Placing the Sutures Before the Lacerations Occur.—Dr. LAPTHORN SMITH, of Montreal, spoke of the importance of closing even small tears of the perinæum, so as not to leave raw surfaces for septic absorption. It was important to close large tears so as to retain the function of the pelvic muscles. The best time to put in these stitches was just before the head pressed on the perinæum, while the patient was anæsthetized and before the parts had lost their relative positions. With the left finger in the vagina and the thumb in the rectum, a large perinæum needle on a handle was passed just under the vagina, threaded with silkworm gut; the two or three stitches hung loosely in a Péan forceps until the placenta had been extracted, when they were quickly tied, bringing the parts exactly together as they were before the tear.

Immediate Repair of Injuries of the Pelvic Floor.—Dr. HENRY C. COE, of New York, read a paper with this title. (To be published.)

Uniformity in Pelvic and Cranial Measurements.—Dr. A. F. A. KING, of Washington, D. C., read a paper on this subject in which he reached the following conclusions:

"1. At present the measurements of the normal pelvis and fœtal head are indefinite and unsettled, and must continue so to be, so long as they are determined by our present methods of mensuration.

"2. The chief purpose in obtaining the normal dimensions of these structures being for teaching and learning the normal mechanism of labor, it is proposed to adopt an ideal or hypothetical head and pelvis, upon the dimensions of which all authorities may agree.

"3. In the adoption of such ideal measures, it is unnecessary and undesirable to define any measurement with exact precision—no fraction smaller than a quarter of an inch being required.

"4. Race variation forms no real obstacle to the proposed plan, and other apparent difficulties can be overcome.

"Finally, should the proposition meet with approval, it is suggested that this society take the initiative in bringing the matter in proper form before some forthcoming international medical congress for general adoption."

Accordingly, a committee was appointed by the president to consider the matter of uniformity in pelvic and cranial measurements, and report at the next annual meeting.

Non-Operative Local Treatment in Gynæcology.—Dr. WILLIS E. FORD, of Utica, N. Y., said that no one would deny that greater good had come from surgical treatment of diseases peculiar to women than was ever dreamed of by the early gynæcologists, who did not operate. No comparison of results could be made. He did not think it was true, however, that the specialty ought to become purely surgical. Pathology learned by pelvic and abdominal surgery ought to be clearer and better than was ever discovered post mortem. It was fair to assume that men who did this work had a better idea of the natural history, progress and dangers of these diseases than those who did not operate; and that, therefore, the early treatment ought to be in the hands of men who were also doing surgical work. The nervous habit could not be cured by surgical procedure. What was commonly called neurasthenia was not a disease, but an established habit, possible only to those who had from birth an unstable or weak, nervous constitution. Before the mental symptoms began was the time to prevent neurasthenics from becoming permanent invalids. That the nervous habit could not be cured by surgery had been proved by the fact that the removal of diseased ovaries and such like operations on epileptic women had not cured the epilepsy or neurasthenia. The argument, therefore, was that in those ailments that tended to disturb the emotions, especially those of the reproductive organs of men or women, the serious thing was not the pain experienced, but the permanent invalidism which was brought about by the protracted local sensations that in time disturbed the mental equilibrium and brought about the invalid habit. These local irritations ought to be treated by skilled gynæcologists, and not allowed to develop into either the mental or physical ailments which were so common a result. These arguments were enough to make the profession revive its interest in non-operative procedures. Recent displacements, especially in young persons, and acute infections were mentioned as demanding non-surgical care early, if one wished to avoid the more serious ailments, and especially the most serious of all, the mental disorder called neurasthenia.

The Value of Non-Operative Local Treatment in Pelvic Disorders.—Dr. Walter P. Manton, of Detroit, said that the ignorance of proper methods, together with the fascinations of operative measures, had brought the local treatment of pelvic disease into disrepute. Three of the factors which among others at the present time were largely responsible for the neglect of medical gynæcology were: 1, The average physician's lack of knowledge in the accurate diagnosis and local treatment of pelvic disease. 2, The allurements and fascinations of surgery. 3, Competition in the field of practice.

While it was true that no amount of instruction could impart a *tactus eruditus,* still any one could acquire a knowledge of the primary principles underlying the correct interpretation of women's ailments, if opportunity was offered for the practical examination of patients under competent direction. In ignoring the benefits to be derived from medicine, he was convinced that surgery had gone too far and that it had overshot the mark, but that the present tendency to operative measures in all conditions affecting the pelvic organs could not be ascribed so much to the good which surgery, rightly directed, was capable of accomplishing as to other elements which had entered into the case was also evident. In the best of hands the results from local treatment in pelvic diseases were frequently slow in manifesting themselves, and discouragements were often met with, but in suitable cases persistent effort would ultimately attain the desired end.

The objects of local treatment were the relief of pain and irritation, often of a reflex nature; the allaying of congestion and inflammation; the absorption of the products of inflammation, and the reposition of displaced organs. In the regulation of the uterine functions, in congestions and mild inflammations of that organ and surrounding parts, and in displacements of the uterus, with and without adhesions, the application of proper local treatment was of signal value; while in prolapse of the tubes and ovaries, even in the presence of extensive adhesions, but without ascertainable morbid changes in the organs themselves, vaginal tamponade offered the simplest and most efficient means of reposition and cure.

Treatment Preparatory to an Operation.—Dr. Henry C. Coe, of New York, introduced his remarks with the statement that, while his early training had led him to believe that such treatment was practically indispensable in cases of so called "cellulitis," subsequent experience had convinced him that this notion was not in accordance with pathology or common sense. He had expressed skepticism in this subject as long ago as 1886, when he read a paper on the Exaggerated Importance of Minor Pelvic Inflammation, and subsequent experience had only served to confirm his opinion that old pelvic exudates and adhesions were not *per se* a contraindication to operations on the uterus. Modern aseptic technics was a sufficient safeguard against danger from this source.

The reader contrasted the old practice of keeping a patient in a hospital for several months, with the preparatory treatment between minor operations, with the present plan of performing combined operations at one séance, and sending the patient out in three or four weeks. He questioned the actual value of the hot vaginal douche, local applications to the vaginal fornix, treatment of the ectopic cervix, etc., previous to trachelorrhaphy, since the diseased tissue would all be removed at once by the operation. At the same time he admitted the remarkable results often observed as regarded the absorption of extensive pelvic exudates. Acute and subacute inflammations in and around the annexa formed the real contraindication to an operation, and doubtless surgeons were not always as careful as those of the former more conservative generation in selecting their cases. Competition and the rush of modern life were responsible for some ill advised operations, minor as well as major.

In regard to major operations, the author thought that (excluding purulent cases) general preparatory treatment of the patient was rather more important than local. He believed, however, that the admirable results obtained by the pioneers in the treatment of vesicovaginal fistulæ were due to careful preparatory treatment, such as the division of cicatrices, stretching of the vagina, etc.

Fortunately we were seldom called upon to handle such complicated cases as those described by Sims, Emmet, and Bozeman. With all our improvements in technics, we had not yet outgrown all the wisdom of our old teachers.

The Value of Postoperative Local Treatment.—Dr. J. Riddle Goffe, of New York, said the experience of all observers was that local treatment relieved congestion, pain, and discomfort, inaugurated, hastened, and accomplished the absorption of œdema, plastic exudate, adhesions, and pseudohypertrophy. If it would relieve these conditions, how much more certainly would it prevent them? It had been found serviceable in preventing the deposit of plastic exudate and the reformation of adhesions in cases in which these were present at the time of operation. It was especially valuable in cases subjected to vaginal section for the relief of sterility. The author reported several instructive cases to substantiate the points made in his paper.

The Implantation of the Human Ovum in the Uterus.—Dr. Charles Sedgwick Minot, of Boston, discussed this subject by request. He stated that the human ovum produced upon its exterior during its earliest stages of development a thick layer of cells, the trophoblast. The function of the trophoblast was to corrode away a portion of the mucous membrane of the uterus, making a cavity in which the ovum lodged itself. The trophoblast thereupon underwent hypertrophic degeneration, such as to produce a series of irregular spaces which persisted and became the intervillous spaces of the placenta. Papillary outgrowths of the chorionic mesoderm meanwhile penetrated the trophoblast, initiating the formation of the chorionic villi. The trophoblastic cells over each mesodermic outgrowth persisted in two layers, the inner, cellular, and the outer, syncytial. These two layers represented the first stage of the villous ectoderm. He compared briefly the method of implantation in man with that in other animals, to show that the trophoblast was of general occurrence, and that by destroying uterine tissues it inaugurated the formation of the true chorionic placenta.

Bathing During the Menstrual Period.—Dr. J. Clifton Edgar, of New York, said that in the consideration of this subject several questions suggested themselves, namely, first, the advisability of bathing of any description during the menstrual period, and, if at all, to what extent. Second, the use of the bath in dysmenorrhœa. Third, the use of Nauheim or other chemical baths or hydriatic procedures. Fourth, the risk of infection of the endometrium in intramenstrual tub bathing. Fifth, the influence of modern athletics on women, lessening the risk, if any, of intramenstrual bathing. These questions had been submitted to the members of the society, from whom he had received one hundred and twenty-two acknowledgments. From the replies received, and the literature on the subject, he drew the following conclusions:

"1. All forms of bathing during the menstrual period are largely a matter of habit, and usually can be acquired by cautious and gentle progression, but not for every woman does this hold good, and surf bathing, where the body surface remains chilled for some time, should always be excepted.

"2. A daily tepid sponge bath (85° to 92° F.) during the menstrual period is not only a harmless proceeding, but is demanded by the rules of hygiene.

"3. In the majority of, if not all, women, tepid (85° to 92° F.) sponge bathing after the establishment of the menstrual flow, namely, second or third day, is a perfectly safe practice.

"4. Furthermore, in most women the habit of using the tepid shower or tub bath after the first day or two of the flow can with safety be acquired."

The Streptococcus in Gynæcological Surgery.—Dr. Hunter Robb, of Cleveland, stated that in order to arrive at some definite conclusions with reference to the *streptococcus pyogenes* as a cause of death in his work, he had made an analysis of all his cases in which this organism had been found during the past six years. It was shown from observations that quite a large number of his patients died, and several were unimproved. It was also noticed that in the great majority of cases in which this organism was met with there was a previous history of infection following labor or an induced criminal abortion. In the past six years he had had 137 cases of abortion (including a few cases of labor) in which it was necessary to carry out some form of treatment. Of this number, 104, or 75.9 per cent., recovered; 17, or 12.4 per cent., were improved; 1, or .8 per cent., was unimproved, and 15, or 10.9 per cent., died. In 16 of the 137 cases the streptococcus was found. The total number of all his cases in which the streptococcus was found was 40, consequently those in which this organism was found following an abortion or labor formed 40 per cent. of the total number of streptococcus cases from every source. Of these 16 patients (streptococcus cases) following abortion or labor, 4, or 25 per cent., recovered; 3, or 18.75 per cent., were improved; 9, or 56.25 per cent., died. In the whole 40 cases from every source, in which the streptococcus was found, the results were as follows: Recovered, 20, or 50 per cent.; improved, 6, or 15 per cent.; deaths, 14, or 35 per cent.

The streptococcus was found in the following combinations, given in order of frequency: 1, Streptococcus alone. 2, Streptococcus and *Staphylococcus pyogenes aureus.* 3, Streptococcus, staphylococcus aureus, and *bacillus coli communis.* In all these cases, except three in which they were obtained from the vagina, the organisms were obtained from the uterus, the annexa, the cul de sac, or several of these situations. In other words, they were proved to be present in places which were admittedly not their normal habitat.

In the past five years he had had 724 abdominal sections, with a total number of 32 deaths, or 4.43 per cent. In 7, or 21.9 per cent., of them the streptococcus pyogenes was demonstrated. In all there were 19 cases of abdominal operations in which the streptococcus was found. Of this number, 12 recovered, or 63.2 per cent., and 7 died, a mortality of 36.8 per cent.

The Nature of the Indications for Operation for Fibroid Tumors of the Uterus.—Dr. Charles P. Noble, of Philadelphia, presented a table of the degenerations and complications in a series of 1,188 cases of fibroid tumors operated upon by Martin, Noble, Cullingworth, Frederick, and Scharlieb, and in a series reported by Hunner and MacDonald.

Special attention was called to the relative frequency of adenocarcinoma of the uterus as compared with epithelioma of the cervix. The deduction drawn from this fact was that fibroid tumors were a direct predisposing cause of cancer of the cervix.

A careful consideration of the facts presented in the table, said the author, should convince any one with an open mind that the classical teaching concerning fibroid tumors was erroneous. This teaching was that fibroid tumors of the uterus were benign growths, which usually produced but few symptoms, and after the menopause underwent retrogressive changes, becoming smaller or disappearing; that the chief danger of fibroid tumors consisted in the fact that at times they caused hæmorrhages from the uterus, and that rarely they caused trouble because of their size or because of pressure on adjacent viscera. An analysis of the 1,188 cases showed that because of the degenerations in the tumors, about 16 per cent. of the women would have died without operation, and about 18 per cent. would have died from the complications present. In addition, it was well known that a certain percentage would have died from intercurrent diseases brought about by the chronic anæmia present in many of these cases, and by injurious pressure from the tumors upon the alimentary canal and urinary organs. In brief, at least one third of the women having fibroid tumors, as shown by the author's table, would have died had they not been submitted to operation.

The Treatment of Gonorrhœa.—Dr. Henry T. Byford, of Chicago, said there was dissatisfaction with prevalent methods of treating this disease. The desideratum was a local remedy that would rapidly destroy or remove the germs without injuring the protective epithelium, and a method of application that could be used by the patient which would not carry the germs to a deeper portion of the genitourinary tract. He advocated prolonged irrigations with hot water as a basis, and spoke ot frequent injections of hot water as a substitute for prolonged irrigations. He detailed his experience with urethritis in the male, and referred to hydrogen dioxide and unirritating germicidal solutions as substitutes for plain water injections, and gave their application to gonorrhœa in the female. The advantages of this treatment, when used early, were summarized by him as follows:

"1. It prevents the spread of the disease to adjacent parts. 2. It does not injure the epithelial covering, and it tends to limit the infection to the superficial areas. 3. It removes more germs and pus cells than either astringents or disinfectants can destroy. It acts in the same way as constant irrigation, both in aborting and arresting the progress of the infection. 4. It can be used more frequently than astringents or strong germicides, so that the parts can practically be kept free from pus and germs all the time, while the method of using germicides or astringents three or four times daily allows the germs and pus to accumulate and spread between injections. 5. In the male, and possibly in the female, peroxide injections may be substituted when the time and facilities for the hot water treatment cannot be had. When the discharge has become scanty and the injections cannot readily be used so frequently, a non-irritating solution of a silver salt can follow each hot water or peroxide treatment. 6. It may be used in connection with injections for the dissolving of germs and culture material not eliminated by the douches. 7. It does no harm. It can be combined with the internal or local medication when it becomes impossible to carry it out with the necessary time consuming detail. It exemplifies the superiority of asepsis to antisepsis."

The following officers were elected: President, Dr. E. C. Dudley, of Chicago; vice-presidents, Dr. Henry D. Fry, of Washington, and Dr. Henry C. Coe, of New York; secretary, Dr. J. Riddle Goffe, of New York; treasurer, Dr. J. M. Baldy, of Philadelphia. Niagara Falls, N. Y., was selected as the place for holding the next annual meeting, in May, 1905.

Book Notices.

First Report of the Tenement House Department of the City of New York. Vol. I. January 1, 1902-July 1, 1903.

On January 1, 1902, the Tenement House Department of the New York city government began its operations, and by August of that year it was fairly organized. The present volume gives an account of the very important work accomplished up to July 1, 1903, a period of eleven months. The new department was fortunate in having the services of Robert W. de Forest as commissioner, as his long service in connection with various charities in New York made him exceptionally well acquainted with the needs of such a department and the best methods to secure compliance with the law.

Few physicians, save those whose duties took them to the tenement houses, could have any idea of the vile, insanitary conditions that existed in some of the 82,000 tenements that housed nearly three millions of people. The beneficent work accomplished by 337,246 inspections that disclosed 55,055 violations of the law redounded to the benefit of 83,840 persons.

The character of the work is disclosed by the publication of many reports of inspectors, photographs of conditions found, floor plans of tenements, and maps. The volume is not only a valuable description of methods of organization and administration of such a bureau, but also an important contribution to the science of municipal administration.

Tuberculosis and Acute General Miliary Tuberculosis. By Dr. G. Cornet, of Berlin. Edited, with Additions, by Walter B. James, M. D., Professor of the Practice of Medicine in the College of Physicians and Surgeons (Columbia University), New York. Authorized Translation from the German under the Editorial Supervision of Alfred Stengel, M. D., Professor of Clinical Medicine in the University of Pennsylvania. Philadelphia, New York, London: W. B. Saunders & Co., 1904. (Cloth, $5.00; half morocco, $6.00.)

The names of Cornet, James, and Stengel are in themselves a sufficient guarantee that we have before us a work of merit. Dr. E. R. Baldwin, of Saranac Lake, whose studies in the biology of the tubercle bacillus are well known, has added to the value of this book by a chapter on the chemistry of the tubercle bacillus.

The first portion of the work is devoted to tuberculosis in general, the bacillus, the histology, and the modes of invasion; infection, heredity, and predisposition. The second portion treats of pulmonary tuberculosis in particular; of its pathology, symptoms, courses, termination, diagnosis, complications, prognosis, prophylaxis, and treatment. The third portion discusses the ætiology, pathology, symptoms, course, diagnosis, and treatment of acute general miliary tuberculosis. Appended to the whole is an excellent bibliography.

Cornet's own account of his experiments in the dissemination of the tubercle bacilli through the sputum is convincing and shows beyond a shadow of doubt that indoors dried tuberculous sputum is the most frequent source of the propagation of tuberculosis. Cornet, however, has always denied the possibility of drop infection and almost ridicules it in his chapter on sanatoria. The work of Flügge and his pupils, concerning the danger of the dissemination of the bacilli through small drops or spray expelled during coughing, sneezing, or excited speaking, is, however, accepted to-day by all modern hygienists and phthisiotherapeutists. Fortunately, in the American edition, Professor James has added a short note on this important mode of infection. Koch's recent declaration concerning the dissimilarity of the bovine and human tubercle bacillus, and the alleged extreme rarity of the transmission of tuberculosis from the bovine race to man, has received no mention by the author, but here again the editor has helped to bring the book up to date, and his conclusions concerning this important and vital subject are briefly as follows:

"1. The bacilli of human and bovine tuberculosis are the same organism, but modified in their activity by change of host. By transmission through cattle they acquire increased virulence for cattle, but lessened virulence for man.

"2. There is good reason to think that primary tuberculosis of the alimentary tract in infants is acquired chiefly from milk of tuberculous cows, but it must be remembered that primary intestinal tuberculosis is a very rare condition.

"3. The doctrine of the hæmatogenous origin of pulmonary tuberculosis, either as an immediate result of an intestinal infection or as the outbreak of an infection latent since early infancy, has yet to be proved, but must at present be regarded as a possibility.

"Finally, in view of all the facts that are at hand, we are not justified in relaxing in any measure our efforts to prevent the use of tuberculous milk and meat."

Eighty pages of the work are devoted to a most admirable description of the symptoms of pulmonary tuberculosis, and the symptoms of miliary tuberculosis are equally well described. The list of American sanatoria, which Dr. James obtained from the Tuberculosis Committee of the New York Charity Organization Society, is complete and adds to the value of the work as an American reference book. Of the list of European private sanatoria, given by Cornet, the same cannot be said. To the reviewer a number of most excellent sanatoria are known, having been in existence for a number of years, which have received no mention. In the recent report of the secretary of the "Deutsche central-Komité zur Errichtung von Heilstatten für Lungenkranke," twenty-six important private sanatoria in Germany alone are mentioned, while Cornet's book mentions fourteen only, including three in Switzerland; the list of European state sanatoria is also deficient.

Beside this minor criticism of Cornet's excellent work we might be justified in making one of greater importance. In the chapter on predisposition hardly one page has been devoted to social conditions. When we consider that tuberculosis is as much a social as it is a medical disease, we can only regret that of the 800 pages which the book contains not more have been consecrated to social conditions as a predisposing factor in tuberculosis. Let us hope that in a future edition the paragraph on the social aspect of tuberculosis will receive a more just consideration at the hands of the German author and the American editor and translator. Nevertheless, the book as a whole is an admirable presentation of our present knowledge of tuberculosis.

Appletons' Medical Dictionary. An Illustrated Dictionary of Medicine and Allied Subjects, in Which are given the Derivation, Accentuation, and Definition of Terms used throughout the Entire Field of Medical Science. Edited by FRANK P. FOSTER, M. D., Editor *The New York Medical Journal and Philadelphia Medical Journal*, of *A Reference Book of Practical Therapeutics;* and of Foster's *Illustrated Encyclopædic Medical Dictionary*. New York and London: D. Appleton & Co., 1904. (Price, half leather, $10.00; with thumb index, $11.00.)

This superb work of 1991 pages is intended principally for the general practitioner, and is not a mere compilation, but the outcome of extensive courses of reading. As in its preparation 1,424 standard works have been consulted, as well as numerous periodicals in French, German, and English, the dictionary possesses an authority not hitherto possessed by similar works. The articles on anatomy, individual diseases, surgical operations, and pharmacy are particularly exhaustive. Recent fads in spelling have been avoided, although not to the exclusion of forms fully recognized, and we think this dictionary should establish a standard much needed in the present era of individual and clique vagaries. The scheme of pronunciation is simple and readily intelligible. Many handsome plates, specially prepared for the book, adorn its pages, as well as a large number of well executed wood cuts. In preparing the work, the editor states, his idea was to place accuracy first, convenience of arrangement next, and comprehensiveness third, and we believe our readers will agree that the plan was excellent and has been systematically carried out. The dictionary is beautifully printed and substantially bound.

International Clinics. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pædiatrics, Obstetrics, Gynæcology, Orthopædics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene, and Other Topics of Interest to Students and Practitioners. By Leading Members of the Medical Profession Throughout the World. Edited by A. O. J. Kelly, A. M., M. D., Philadelphia, U. S. A., with the Collaboration of William Osler, M. D., Baltimore; John H. Musser, M. D., Philadelphia; James Stewart, M. D., Montreal; J. B. Murphy, M. D., Chicago; A. McPhedran, M. D., Toronto; Thomas M. Rotch, M. D., Boston; John G. Clark, M. D., Philadelphia; James J. Walsh, M. D., New York; I. W. Ballantyne, M. D., Edinburgh; John Harold, M. D., London; Edmund Landolt, M. D., Paris; Richard Kretz, M. D., Vienna, with regular correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels and Carlsbad. Volume i. Fourteenth Series, 1904. Philadelphia: J. B. Lippincott Company, 1904.

The present volume of this well known and highly esteemed publication amply bears out the reputation of its predecessors. The contents are varied, but all of a practical nature and the work of contributors of great eminence in the profession. The pictorial illustrations in this volume are particularly good. One of them, a colored picture of a patient with symmetrical capillary angeioma, is particularly worthy of commendation.

Radioactivity. An Elementary Treatise, from the Standpoint of the Disintegration Theory. By Fredk. Soddy, M. A., Lecturer on Physical Chemistry and Radioactivity in the University of Glasgow. With 40 Illustrations. New York, 1904. The D. Van Nostrand Company; London: The Electrician Printing and Publishing Company, Limited, 1904. [Price, $3.00.]

This book contains a consecutive account of the advances that have been made in our knowledge of the relationship existing between electricity and matter since the discovery by Becquerel, in 1896, of radioactivity in uranium. While the author disclaims, in his preface, the intention of treating the matter fully, a perusal of the contents makes it evident that little that could be included in a non-mathematical treatise has been omitted.

The opening chapter consists of an interesting introduction to the subject of radiation, in which is given a concise historical description of the mechanism of radiation phenomena. Each of the radioactive elements is treated separately, and methods and apparatus for the determination of their properties are considered at length and in detail. The final chapter is devoted to a consideration of presaged advances in our comprehension of the subatomic structure of matter, having a direct bearing on the subject.

The book should be of interest to the medical profession. It is a simple and lucid explanation of the subject. Many difficult relations which are usually indicated by abstruse mathematical formulæ are described in the simplest language. The engravings of skiagraphs and diagrams of apparatus are well printed, the publishers having performed their work well.

A Manual of Hygiene and Sanitation. By Seneca Egbert, A. M., M. D., Professor of Hygiene and Dean of the Medicochirurgical College of Philadelphia; Member of the Academy of Natural Sciences of Philadelphia, etc. Third Edition. Enlarged and Thoroughly Revised. Illustrated with 86 Engravings. Philadelphia and New York: Lea Brothers & Co.

Although, as is stated on the title page, this editon of Dr. Egbert's work has been enlarged, it does not even now purport to constitute an exhaustive study of the subject with which it deals, but it can safely be said of it that it presents in very readable form the gist of preventive medicine as we know it to-day. The section on immunity, in the chapter on bacteriology, strikes us as particularly well done. Its up to date character is shown by the succint, yet sufficient, consideration given Ehrlich's side chain theory of immunity.

A Manual of Fever Nursing. By Reynold Webb Wilcox, M. A., M. D., LL. D., Professor of Medicine in the New York Postgraduate Medical School and Hospital; Consulting Physician to the Nassau Hospital, etc. Illustrated. Philadelphia: P. Blakiston's Son & Co., 1904.

The subject of this book is much more germane to the every day legitimate duties of the nurse than those of many books for nurses that have been brought out within recent years. The author is not only a therapeutist of note, but also a trained writer; hence he treats the subject in the best possible way.

Proceedings of the American Medicopsychological Association at the Fifty-ninth Annual Meeting, held in Washington, D. C., May 12-15, 1903. Published by the American Medicopsychological Association, 1903.

This collection of papers constitutes a notable addition to the current literature of insanity. The association includes in its membership almost all the leading alienists of America, and to its proceedings they contribute their best productions.

BOOK AND MAGAZINE NOTES.

What are supposed to be the impressions of young George Washington, when he first met Benjamin Franklin, are recorded in the sixth installment of The Youth of Washington, by Dr. Weir Mitchell, in the *Century Magazine* for September. "He was at this time a vigorous man of forty-nine years, with a great head and a kindly look, clad very simply in a gray suit. When he began to talk, I envied him the ease and exactness with which he expressed himself and the prudence he showed in speech, of which quality his lordship (Fairfax) had little."

Everybody's Magazine for September, an entertaining and brilliant number throughout, contains a story, by Mary Moss, In the City General, a tale of the mental and moral development of a pupil nurse. It is a good story, even if the tragical crux is somewhat hackneyed. Kipling used the same idea last we think.

Dr. Henry C. Rowland, in *McClure's Magazine* for September, gives us The Friendly Fog, a story that landlubbers may enjoy, as the sea dialect is mercifully tempered. We have never met so detestable a villain in so short a yarn, and we are very glad he was discomfited and lost the heroine to the right man.

BOOKS, PAMPHLETS, ETC., RECEIVED.

A Reference Handbook of the Medical Sciences, embracing the Entire Range of Scientific and Practical Medicine and Allied Science, by various writers. A New Edition, Completely Revised and Rewritten. Edited by ALBERT H. BUCK, M. D., New York City. Vol. VIII, Illustrated by Chromolithographs and Four Hundred and Thirty-five Half-tone and Wood Engravings. New York, 1904: William Wood & Co.

A Course in Qualitative Inorganic Chemistry. By ARTHUR L. GREEN, Ph. C., M. D., Ph. D. Dean and Professor of Chemistry, School of Pharmacy, Purdue University, and CHARLES E. VANDERKLEED, Ph. C., B. S., A. C. Philadelphia: Arthur L. Green, Lafayette, Ind. Fourth Edition.

The Theory and Practice of Infant Feeding. With Notes on Development, by HENRY DWIGHT CHAPIN, A. M., M. D., Professor of Diseases of Children at the New York Postgraduate Medical School and Hospital; Attending Physician to the Postgraduate, Willard Parker, and Riverside Hospitals, etc. Second Edition, Revised. With Numerous Illustrations. New York, 1904: William Wood & Co.

Ueber die Grenzen der Uebertragbarkeit der Tuberculose durch Fleisch Tuberculöser Rinder auf den Menschen. Von Stabsarzt Dr. M. WESTENHOEFFER, commandirt zum Institut. Berlin, 1904: August Hirschwald.

Kompendium der Röntgen-Therapie. Von Dr. H. E. SCHMIDT, Assistent am Universtäts-Institut für Lichtbehandlung zu Berlin. Mit 22 Abbildungen. Berlin, 1904: August Hirschwald.

A Text Book of Pathology. By JOSEPH MCFARLAND, M. D., Professor of Pathology and Bacteriology in the Medicochirurgical College of Philadelphia; Pathologist to the Medicochirurgical Hospital, Philadelphia. Handsome Octavo Volume of 818 Pages, with 350 Illustrations, a Number in Colors. Philadelphia, New York, London, 1904: W. B. Saunders & Co., 1904. [Cloth, $5.00 net; sheep or half morocco, $6.00, net.]

Normal Histology. By EDWARD K. DUNHAM, Ph. B., M. D., Professor of General Pathology, Bacteriology, and Hygiene in the University and Bellevue Hospital Medical College, New York. Third Edition. Revised and Enlarged. Illustrated with 260 Engravings. New York, Philadelphia, 1904: Lea Brothers & Co.

Radiotherapy and Phototherapy. Including Radium and High Frequency Currents, Their Medical and Surgical Applications in Diagnosis and Treatment. For Students and Practitioners. By CHARLES WARRENNE ALLEN, M. D., Professor of Dermatology in the New York Postgraduate Medical School; Consulting Dermatologist to the Randall's Island Hospitals, etc. With the Co-operation of MILTON FRANKLIN, M. D., Lecturer on Electroradiotherapy, New York Polyclinic Medical School, and SAMUEL STERN, M. D., Radiotherapist to Dr. Lustgarten's Clinic at the Mount Sinai Hospital; Clinical Assistant to the Skin Department of the New York Postgraduate Medical School. Illustrated with 131 Engravings and 27 Plates in Colors and Monochrome. New York, Philadelphia, 1904: Lea Brothers & Co.

Practical Application of the Röntgen Rays in Therapeutics and Diagnosis. By WILLIAM ALLEN PUSEY, A. M., M. D., Professor of Dermatology in the University of Illinois; and EUGENE W. CALDWELL, B. S., Director of the Edward N. Gibbs Memorial X Ray Laboratory of the University and Bellevue Hospital Medical College, New York. Second Edition, Thoroughly Revised and Enlarged. Handsome Octavo Volume of 690 Pages, with 195 Illustrations, Including Four Colored Plates. Philadelphia, New York, London, 1904: W. B. Saunders & Co. [Cloth, $5.00 net; sheep or half morocco, $6.00 net.]

A System of Practical Surgery. By Professor E. VON BERGMANN, M. D., of Berlin; Professor P. VON BRUNS, M. D., of Tubingen, and Professor J. VON MIKULICZ, M. D., of Breslau. Volume IV. Translated and Edited by WILLIAM T. BULL, M. D., Professor of Surgery, College of Physicians and Surgeons, Columbia University, New York; EDWARD MILTON FOOTE, M. D., Instructor in Surgery, College of Physicians and Surgeons, Columbia University, New York; CARLETON P. FLINT, M. D., Instructor in Minor Surgery, College of Physicians and Surgeons, Columbia University, New York; and WALTON MARTIN, M. D., Instructor in Surgery, College of Physicians and Surgeons, Columbia University, New York. *Surgery of the Alimentary Tract.* New York, Philadelphia. 1904: Lea Brothers & Co.

Bacteriological and Clinical Studies of the Diarrhœal Diseases of Infancy. With Reference to the *Bacillus Dysenteriæ* (*Shiga*) from the Rockefeller Institute for Medical Research. 1904. Edited by SIMON FLEXNER, M. D., and L. EMMET HOLT, M. D.

A Practical Treatise on Genitourinary and Venereal Diseases and Syphilis. By ROBERT W. TAYLOR, A. M., M. D., Clinical Professor of Genitourinary Diseases at the College of Physicians and Surgeons (Columbia University), New York; Consulting Genitourinary Surgeon to Bellevue Hospital and to City (Charity) Hospital, New York. Third Edition, Thoroughly Revised. With 163 Illustrations and 39 Plates in Colors and Monochrome. New York and Philadelphia: Lea Brothers & Co.

The Principles and Practice of Gynæcology. For Students and Practitioners. By E. C. DUDLEY, A. M., M. D., President of the American Gynæcological Society; Professor of Gynæcology, Northwestern University Medical School, etc. Fourth Edition, Revised. With 419 Illustrations in Colors and Monochrome, of which 18 are Full Page Plates. Philadelphia and New York: Lea Brothers & Co., 1904. [Cloth, $5.00; leather, $6.00; half morocco, $6.50 net.]

Clinical Urinology. By ALFRED C. CROFTAN, Professor of Medicine. Chicago Postgraduate Medical College and Hospital; Physician in Chief to St. Mary's Hospital; Pathologist to St. Luke's Hospital. Illustrated. New York: William Wood & Co., 1904. [Cloth, $7.50.]

Transactions of the Southern Surgical and Gynæcological Association. Volume XVI. Sixteenth Session, held at Atlanta, Ga., December 15, 16, and 17, 1903. Edited by W. D. HAGGARD, M. D. Published by the Association. 1904.

Miscellany.

Patent Medicine Tippling.—The recent Ocean Grove session of the National Temperance Society decided to petition Congress for a licensed chemist in each State to analyze all proprietary medicines, so as to exclude those containing an undue proportion of spirits. Patent medicine tippling was said to have become a national menace.

Against Counter Prescribers.—The Indiana State Board of Medical Registration has started a vigorous campaign against pharmacists who prescribe for a patient as well as sell him medicine to cure his ills. Quiet investigations are being conducted and data are being obtained on which successful prosecutions may be conducted when the time comes for the board to carry its fight into the open. Dr. W. A. Spurgeon, vice-president of the board, is quoted as saying that the violation of the law has become general throughout the State of Indiana.

When to Ligate the Umbilical Cord.—At a recent meeting of the Obstetrical Society of Philadelphia, a paper on this subject was read by Dr. Alexander Hewn Davisson, who gave the following conclusions:

In a vigorous infant, when respiration is established and uterine contraction is firm, the cord should be ligated when it ceases to pulsate.

In a vigorous infant, when respiration is established, but the uterus is not contracting or the placenta is detached, ligation should be done irrespective of funic pulsation.

In a feeble infant, when respiration is established and uterine contraction is firm, ligation should be delayed.

In a feeble infant, when respiration is not established and uterine contraction is firm, ligation should be delayed, if it is not imperative to remove the child to a distance from the mother, in order to institute respiratory movements.

In a feeble infant, when respiration is established, but the uterus is not contracting or the placenta is detached, ligation should be done at once.

Dr. W. H. Good, in discussing Dr. Davisson's paper, wished to bring out the point that it seemed to be the common teaching, that the cord in a weak child should not be ligated until after the pulsation ceased, thus allowing the blood to pass from the mother into the child. Following this up, some time ago he had a case of a six months' miscarriage in which, for five minutes after the child and placenta were expelled, the cord pulsated. This surely proved that pulsations were fœtal in origin. There was no connection between the blood supply of mother and child, except by diffusion by osmosis. We knew that the child's blood contained a higher percentage of hæmoglobin, and the mother's did not contain any of the nucleated blood cells, while that of the fœtus did. Cavaglia stated that the time to ligate the cord was when the uterus was firmly contracted, because in this way the blood in the placenta was forced into the child, and very little was forced through the umbilical veins against the uterine pressure into the placenta. This seemed to be reasonable.

Official News.

Public Health and Marine Hospital Service:

Official List of the Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the Public Health and Marine Hospital Service for the thirteen days ending August 24, 1904:

Bailhache, P. H., Surgeon. Granted leave of absence for seven days from August 14, 1904, under the provisions of paragraph 191 of the regulations.

Bean, L. C., Acting Assistant Surgeon. Granted leave of absence for five days from August 22, 1904.

Brock, G. H., Pharmacist. Relieved from duty at Delaware Breakwater Quarantine and directed to proceed to St. Louis, Mo., and report to Medical Officer in Command for temporary duty. August 16, 1904.

Foster, H. H., Passed Assistant Surgeon. Granted leave of absence on account of sickness for one month from August 18, 1904.

Fox, Carroll, Assistant Surgeon. Granted leave of absence for three days under the provisions of paragraph 191 of the regulations. July 16, 1904.

Francis, Edward, Assistant Surgeon. Granted leave of absence for seven days from August 8, 1904, under the provisions of paragraph 191 of the regulations.

Francis, Edward, Assistant Surgeon. Granted extension of leave of absence for twenty-one days. August 13, 1904.

Gibson, R. H., Pharmacist. Granted leave of absence for thirty days from September 7, 1904.

Grace, J. J., Acting Assistant Surgeon. Granted leave of absence for thirty days from September 23, 1904.

Hallett, E. B., Acting Assistant Surgeon. Granted leave of absence for four days. August 13, 1904.

Hunt, Reid, Chief Division of Pharmacology. Granted leave of absence for six days from August 22, 1904, under the provisions of paragraph 210 of the regulations

Kolb, W. W., Pharmacist. Relieved from duty at the Savannah (Ga.) Quarantine Station and directed to proceed to Washington, D. C., and report at the Bureau preliminary to assignment to duty in the Hygienic Laboratory. August 17, 1904.

Mason, M. R., Pharmacist. Granted leave of absence for fifteen days from September 1, 1904.

Miller, Charles, Pharmacist. Detailed to represent the Service at the meeting of the American Pharmaceutical Association at Kansas City, Mo., September 5 to 10, 1904.

O'Gorman, T. V., Pharmacist. Granted leave of absence for thirty days from August 18, 1904.

Purviance, George, Assistant Surgeon-General. Granted extension of leave of absence for one month from August 1, 1904, on account of sickness.

Roehrig, A. M., Pharmacist. Detailed to represent the Service at the meeting of the American Pharmaceutical Association at Kansas City, Mo., September 5 to 10, 1904.

Rogers, Edward, Pharmacist. Relieved from duty at Cleveland, Ohio, and directed to proceed to New York, N. Y. (Stapleton), and report to the Medical Officer in Command at that port for duty and assignment to quarters. August 17, 1904.

Scheroschowaky, J. W., Assistant Surgeon. To proceed to Philadelphia, Pa., for temporary duty in connection with the inspection of alien immigrants during the absence on leave of Passed Assistant Surgeon Taliaferro Clark. August 24, 1904.

Simonson, C. T., Acting Assistant Surgeon. Granted leave of absence for fifteen days from August 26, 1904.

Southard, F. A., Pharmacist. Granted leave of absence for four days from August 8, 1904, under the provisions of paragraph 210 of the regulations.

Southard, F. A., Pharmacist. Relieved from duty in the Hygienic Laboratory, Washington, D. C., and directed to proceed to Cleveland, Ohio, and report to the Medical Officer in Command at that port for duty and assignment to quarters. August 17, 1904.

Spangler, L. C., Pharmacist. Relieved from duty at the Tampa Bay (Fla.) Quarantine, and directed to proceed to Savannah (Ga.) Quarantine and report to the Acting Assistant Surgeon in Charge for duty and assignment to quarters. August 17, 1904.

Van Ness, G. I., Jr., Pharmacist. Relieved from duty at New York, N. Y. (Stapleton), and directed to proceed to Louisville, Ky., and report to the Medical Officer in Command at that port for duty and assignment to quarters. August 17, 1904.

Walkley, W. S., Acting Assistant Surgeon. Granted leave of absence for three days. August 15, 1904.

Warren, B. S., Assistant Surgeon. Granted leave of absence for six days. August 12, 1904.

Williams, L. L., Assistant Surgeon-General. Relieved from status of "absent on leave" and directed to assume temporary command of the Cape Fear Quarantine Station during the absence on leave of Assistant Surgeon B. S. Warren. Upon the return of Assistant Surgeon Warren to resume status "absent on leave." August 13, 1904.

Williams, L. L., Assistant Surgeon-General. Granted extension of leave of absence for fifteen days from August 13th, on account of sickness.

Boards Convened.

Board convened to meet at the United States Marine Hospital, Stapleton, N. Y., August 13, 1904, for the physical examination of a chief engineer of the Revenue Cutter

Service. Detail for the board—Passed Assistant Surgeon A. C. SMITH, chairman; Passed Assistant Surgeon C. H. LAVINDER, recorder.

Board convened to meet at Washington, D C., August 25, 1904, for the physical examination of a candidate for appointment in the Revenue Cutter Service. Detail for the board—Assistant Surgeon-General W. J. PETTUS, chairman; Assistant Surgeon A. J. McLAUGHLIN, recorder.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending August 27, 1904:

BRAISTED, W. C., Surgeon. Detached from the *Relief* and ordered to the *Pensacola*.

DABNEY, V., Acting Assistant Surgeon. Ordered to duty with Naval Recruiting Party No. 2.

DUNCAN, G. F., Acting Assistant Surgeon. Detached from the *Franklin* and ordered to duty with Naval Recruiting Party No. 3.

GUTHRIE, J. A., Passed Assistant Surgeon. Granted an extension of leave for three months.

HUNTINGTON, E. O., Surgeon. Detached from Naval Hospital, Portsmouth, N. H., and ordered to duty at the Naval and Marine Recruiting Stations, Chicago, Ill.

KENNEDY, R. M., Surgeon. Detached from Naval Hospital, New York, and granted sick leave for one month.

LEWIS, D. C., Medical Inspector. Commissioned a Medical Inspector from January 4, 1904.

WHEELER, L. B., Assistant Surgeon. Detached from duty at the Naval Hospital, Boston, Mass., and ordered to duty as recorder, Naval and Medical Examining Boards, Washington, D. C.

WILSON, H. D., Passed Assistant Surgeon. Ordered to duty at the Naval Hospital, Portsmouth, N. H.

WISE, A. H., Acting Assistant Surgeon. Detached from the Naval and Marine Recruiting Stations, Chicago, Ill., and ordered to duty with Naval Recruiting Party No. 1.

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending August 27, 1904:

BAKER, FRANK C., First Lieutenant and Assistant Surgeon. Assigned to duty at Manassas, Va., during manœuvres. Left Ordinance Barracks, Cal., *en route* to Fort Sheridan, Ill., to take part in Army Infantry competition.

BARTLETT, C. J., First Lieutenant and Assistant Surgeon. Assigned to duty at the Army and Navy General Hospital, Hot Springs, Ark.

JOHNSON, R. W., Major and Surgeon. Detailed to represent the Medical Department of the Army at the meeting of the American Röntgen Ray Society in that city September 9 to 13, 1904.

McCULLOCH, C. C., Captain and Assistant Surgeon. Will take charge of the office of the Chief Surgeon, Department of the East, during the absence of Major John L. Phillips, surgeon, at the manœuvres at Manassas, Va.

MARROW, CHARLES E., First Lieutenant and Assistant Surgeon. Assignment to duty at Manassas, Va., during manœuvres is revoked.

NOBLE, R. E., First Lieutenant and Assistant Surgeon. Granted fourteen days' leave of absence.

RAYMOND, THOMAS U., Major and Surgeon. Detail to represent Medical Department of the Army at meeting of the American Röntgen Ray Society to be held at St. Louis, Mo., September 9th to 13th, is revoked. Order relieving him from duty at Louisiana Purchase Exposition, St. Louis, Mo., and assigning to duty at Fort Assinniboine, Mont., is revoked.

RENO, WILLIAM W., First Lieutenant and Assistant Surgeon. Detailed to represent the Medical Department of the Army at the meeting of the American Electro-Therapeutic Association, to be held in St. Louis, Mo., September 13th to 16th.

WHITCOMB, C. C., First Lieutenant and Assistant Surgeon. Granted one month and fourteen days' leave.

Births, Marriages, and Deaths.

Married.

BLISS—JACKSON.—In Atlantic City, New Jersey, on Wednesday, August 17th, Dr. Alonzo C. Bliss and Miss Eva Jackson.

GRAY—BAUMANN.—In Chicago, Illinois, on Tuesday, August 23rd, Dr. Ethen Allen Gray and Miss Elise Marie Baumann.

HODGES—ANDREWS.—In Manchester, Massachusetts, on Thursday, August 1st, Dr. Fletcher Hodges and Miss Rebecca Trail Andrews.

JUDD—BEARDSLEY.—In New York, on Tuesday, August 16th, Dr. Aspinwall Judd and Miss Mariona Temple Beardsley.

KEATLEY—SMITH.—In Norfolk, Virginia, on Wednesday, August 17th, Dr. H. W. Keatley and Miss Helen Harman Smith.

KERGAN—KINSMAN.—In San Francisco, California on Wednesday, August 17th, Dr. F. K. Kergan and Miss Josephine Kinsman.

McCARROLL—PATTERSON.—In Detroit, Michigan, on Wednesday, August 17th, Dr. Calvin McCarroll and Miss Florence Patterson.

MACDOWELL—MACGEE.—In Pen Yan, N. Y., on Wednesday, August 17th, Dr. James Parker MacDowell and Miss Irene Eva MacGee.

MERRITT—RAINEY.—In Blue Mountain, Mississippi, on Wednesday, August 17th, Dr. J. F. Merritt and Miss Lexie Rainey.

RICE—LOVELL.—In Clayton, Missouri, on Monday, August 15th, Dr. L. E. Rice and Miss Clara Mai Lovell.

SOUTTER—WHITESIDE.—In South Hero, Vermont, Dr. Bob Soutter and Miss Helen Whiteside.

SUNDBERG—BUNDESEN.—In San Francisco, California, on Wednesday, August 17th, Dr. John C. Sundberg and Miss Hermance I. Bundesen.

WEBB—DAVIS.—In Colorado Springs, Colorado, Dr. Gerald Bertram Webb and Miss Varina Howell Davis.

Died.

ARTIS.—In Cincinnati, Ohio, on Friday, August 19th, Dr. H. Grant Artis.

BARNETT.—In Claremont, Texas, on Monday, August 22nd, Dr. D. M. Barnett, in the ninety-sixth year of his age.

COMAN.—In Navesink Highlands, New Jersey, on Monday, August 8th, Dr. John S. Coman.

FENNO.—In Rochester, N. Y., on Wednesday, August 17th, Dr. Henry Marshall Fenno, in the fifty-fourth year of his age.

GILL.—In Brooklyn, N. Y., on Monday, August 22nd, Dr. John Walker Gill, in the sixty-second year of his age.

GOODRICH.—In Salem, Massachusetts, on Monday, August 22nd, Dr. Harriet R. Goodrich, in the thirty-sixth year of her age.

LAMB.—On the Red Sea, Dr. Ridgway Lamb, of Patang Strait Settlement, *en route* to New York.

McCARROLL.—In Morristown, N. Y., on Tuesday, August 16th, Dr. Henry B. McCarroll, in the forty-ninth year of his age.

MATHISON.—In Springfield, Massachusetts, on Wednesday, August 17th, Dr. Robert Mathison, in the eighty-seventh year of his age.

MURPHY.—In Edwardsville, Missouri, on Monday, August 22nd, Dr. D. C. Murphy, in the fifty-eighth year of his age.

POYNTZ.—In Mt. Sterling, Kentucky, on Tuesday, August 16th, Dr. J. M. Poyntz, in the sixty-eighth year of his age.

PRYOR.—In New York, on Friday, August 26th, Dr. William Rhys Pryor, in the forty-seventh year of his age.

SCOTT.—In Atlantic City, N. J., on Thursday, August 18th, Dr. Frank Scott, in the sixty-ninth year of his age.

SKEENE.—In Frankfort, Kentucky, on Thursday, August 18th, Dr. S. F. Skeene, in the sixty-first year of his age.

WELLINGTON.—In Mansfield, Massachusetts, on Friday, August 19th, Dr. Claude R. Wellington, in the twenty-fifth year of his age.

New York Medical Journal
AND
Philadelphia Medical Journal.

A Weekly Review of Medicine

Vol. LXXX, No. 11. SATURDAY, SEPTEMBER 10 1904 Whole No. 1345.

Original Communications.

THE TREATMENT FOLLOWING THE BLOODLESS REDUCTION OF CONGENITAL HIP DISLOCATION.

THIRD ARTICLE.

By DEXTER D. ASHLEY, M. D.,
NEW YORK,
ATTENDING ORTHOPÆDIC SURGEON ST. MARK'S HOSPITAL; CHIEF SURGEON ORTHOPÆDIC DEPARTMENT, GERMAN POLIKLINIK,
AND
FREDERICH MUELLER, M. D.,
CHICAGO,
PROFESSOR OF ORTHOPÆDIC SURGERY, MILWAUKEE; ATTENDING ORTHOPÆDIC SURGEON, ST. LUKE'S HOSPITAL, CHICAGO.

Group B. Abnormal positions of the head.

We shall discuss this group rather thoroughly, because a subspinal position, which is frequently the only position that we can secure furnishes a rather satisfactory functional result if the after-treatment is appropriately carried out. The percentage of subspinal positions will be larger in the older cases, and inexperienced operators will always get a larger percentage of these positions, even when the anatomical conditions are favorable.

It is important to distinguish clearly the possibilities of each of these three divisions, as to the final results that may be secured. While division 4 quite frequently will give an irreproachable anatomical result, there cannot be an anatomical result in divisions 5 and 6, while the functional results in division 5, in almost all cases, are entirely satisfactory.

Group B, 4.—The head is located on the horizontal branch of the pubic bone, or is in close contact with the same (suprapubic or pubic position).

The diagnosis of this position can be made unmistakably by mere inspection. The head of the femur protrudes from the groin as a prominence of about the size of an English walnut. Palpation will resolve any possible doubt, since this prominence is hard and smooth, can be grasped

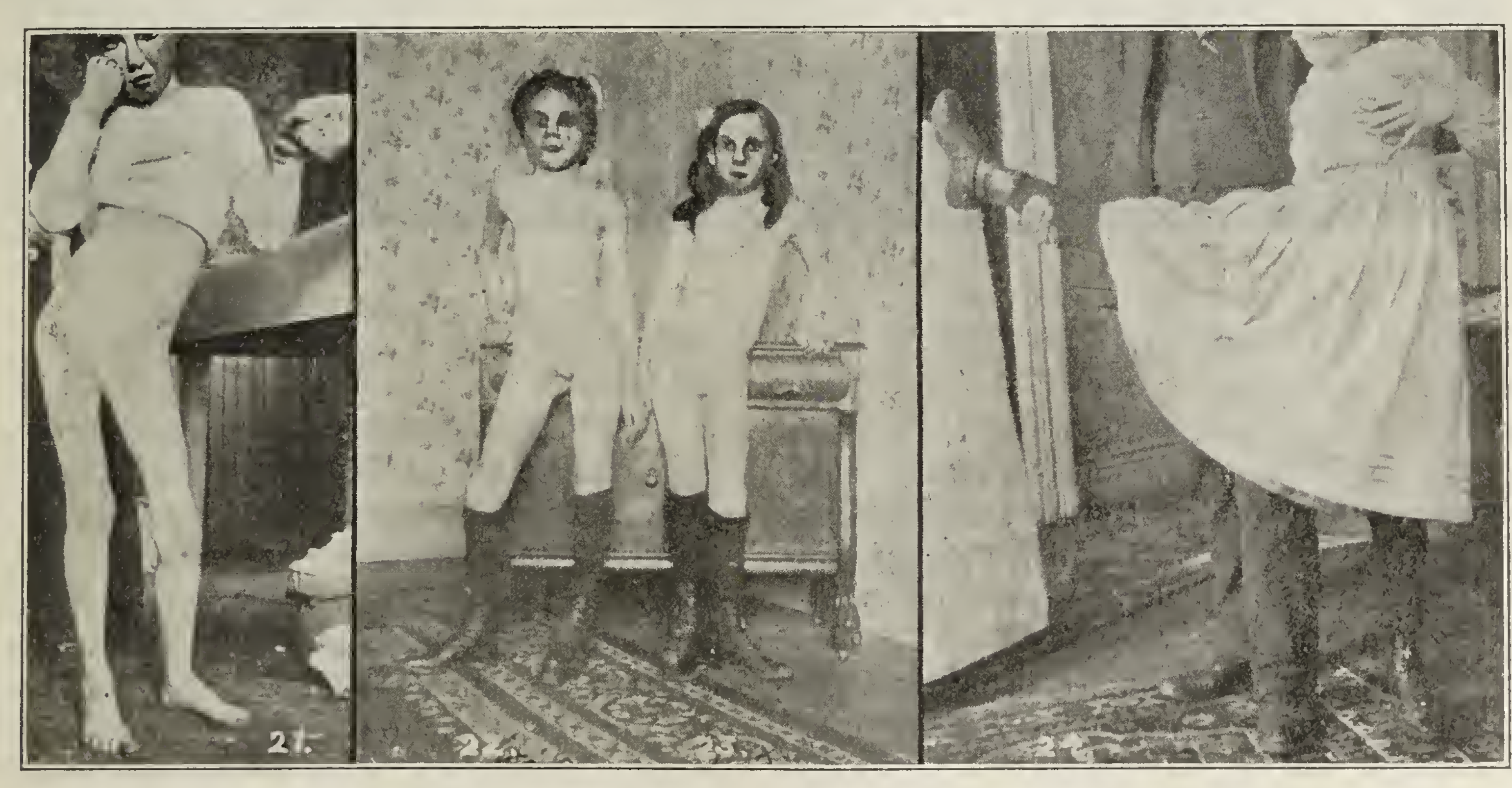


Fig. 21.—Suprapubic position exaggerated. Prominence of head and anterior superior spines, marked with ink, apparent lengthening being eliminated in this picture by position and flexion of knee.

Fig. 22.—Suprapubic position of milder degree, of right limb with characteristic attitude.

Fig. 23.—Subspinal position with characteristic attitude of left limb.

Fig. 24.—Subspinal position, exercising in position of the dance. Right limb of patient in abduction 100°. Over extension, supported by right hand of parent and secured by abduction over left thigh of parent.

with the fingers, and participates in all the movements of the femur, especially in rotations. The exact location of the prominence varies within narrow limits, depending upon how far the head has proceeded upon the pubic bone. Generally speaking, it will always be found somewhat in front of the acetabulum and directly under the femoral artery.

We distinguish two types of the suprapubic position or dislocation. One of them is due to the intentional dislocation of the head upon the horizontal branch of the pubic bone. The second type is the result of an accidental dislocation of this kind. The intended suprapubic dislocation is a procedure which is called by Lorenz "the placing in store of the head." In case it should be absolutely impossible to find any kind of fixation in the region of the acetabulum, we stretch and distend, by means of the femoral head, the anterior part of the capsule to such an extent that the head slides up on the pubic bone. It is evident that this position completely excludes a sliding backward of the head, and it is fixed in this position by a cast which remains for six months. In this way we do not accomplish a reposition in a strict sense, but we succeed in securing a preparatory step for the reposition, by having removed the muscular and capsular resistance and by inducing the shrinkage of the pelvitrochanteric muscles and the posterior wall of the capsule. By this shrinkage, the last mentioned textures are used for the fixation of the femoral head, which was previously without possible fixation.

The unintentional suprapubic dislocation may frequently be seen after removing the first cast, if the anterior part of the capsule was unusually spacious, or if during the operation it was stretched too far, and if upon the occasion of the application of the cast extreme abduction with superextension was adopted. Superextension especially enhances the liability of this dislocation, which will appear under the influence of the position maintained by the cast and as a consequence of the tension of the muscles.

This abnormal position invariably calls for the reposition of the head within the acetabulum, and for fixation by means of a second cast. This secondary reposition Lorenz calls "depression of the head." The thigh in the primary position of maximal abduction and rectangular flexion is given slight extension, with adduction and simultaneous inward rotation. The head disappears from the groin. If the reposition was a success, we fix the member in the position which shows the least danger for the stability of the joint—namely, abduction about 45°, flexion about 30°, and neutral rotation. It is rather hard to formulate general rules, as each case must be individualized to secure the desired depression without jeopardizing the anterior position, since it is evident that if we adduct and flex too far, and there is a shallow acetabulum, we may have a posterior luxation. Hence we should never omit to make examinations on the second, third, and fourth days, to ascertain the position of the head. If it has resumed the suprapubic position, a new cast should be applied under reduced abduction and increased flexion. Should the head be found traveling backward over the acetabulum, the abduction must be increased and the flexion approach the primary position.

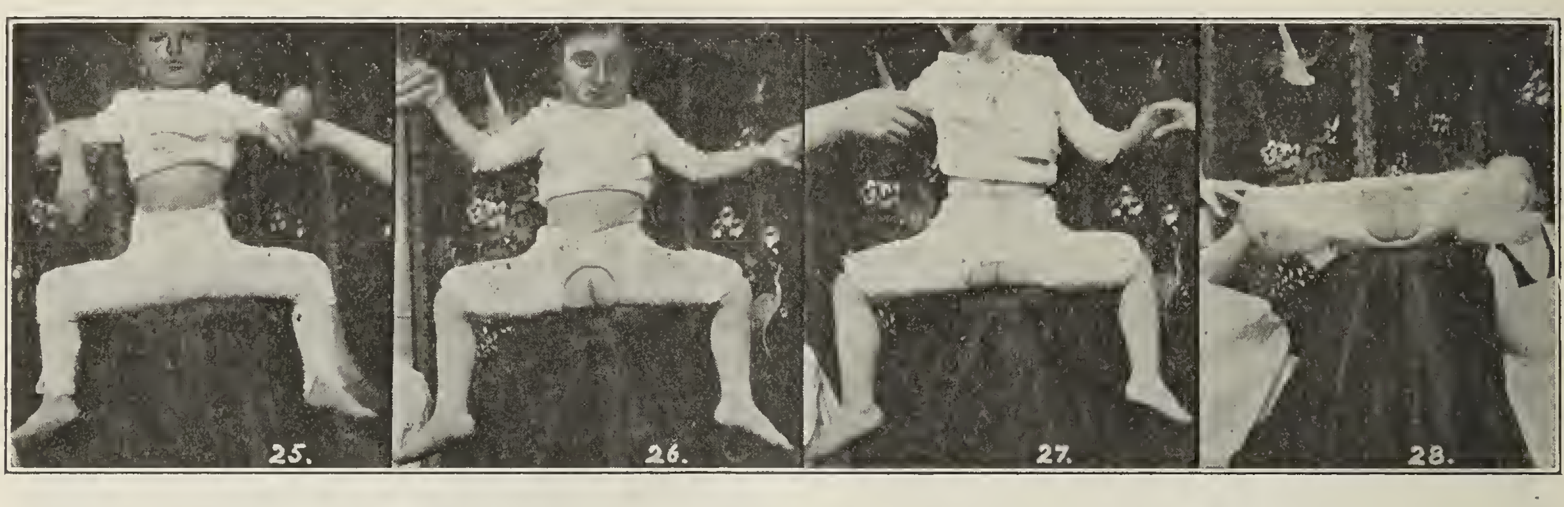


FIG. 25.—Primary position, bilateral reduction. Appearance of plaster, cotton, and stockinet before trimming.
FIG. 26.—Same after trimming, everting, and sewing the stockinet.
FIG. 27.—Posterior view of Fig. 26.
FIG. 28.—Necessary fenestra in Fig. 26.

All of these casts call for a thorough and reliable technique, since they must fix the pelvis and thigh. The beginner will not be able to avoid failures on this score. These casts should be worn from two to six months, during which time the patient walks around, aided by insoles under the sound limb, the height of which must be adjusted according to the position of the reduced limb.

It is expedient to anæsthetize patients for a short time, in order more satisfactorily to perform the depression. A few drops of chloroform, or the *Aetherrausch* narcosis, is sufficient. If narcosis is dispensed with, reliable assistance will be absolutely necessary, and the operator must be thoroughly conversant with the method of procedure.

When the proper degree of stability has been obtained, the cast is removed, and the typical after-treatment carried out, furnishing uniformly good results.

Group B, 5.—The head is located above the acetabulum, underneath the anterior superior spine (Fig. 23).

This position is called by some authors a transposition, but the name subspinal seems to be more appropriate to designate this position, which is quite often found to have developed following a good anatomical reposition. The cause of the non-retention of the head within the acetabulum lies either with the unfavorable anatomical conditions or with shortcomings in the applied technique. It is a fact that inexperienced men will always produce a large percentage of subspinal positions. The most frequent mistakes are insufficient fixation in the cast and insufficient stretching of the anterior wall of the capsule. It is quite often possible to predict a subspinal position at the time of the operation, generally in patients beyond the age limit, where the head has become markedly deformed during the long time in which it remained external to the acetabulum, owing to impaired functional use and the unequal friction produced by the telescopic motion. The stability is, therefore, almost nil, and the indistinctness of the phenomena accompanying the reduction, due to the poor development of the acetabulum, gives a hint that a subspinal position is to be expected. It is quite frequently possible to observe the gradual transmutation of the position under the cast, and in case the anatomical conditions were favorable and the possibility of some mistake of art is excluded, the reposition should be repeated. This secondary operation quite often gives good results. The plaster should be applied in a slightly modified primary position and worn with slight changes, as they are indicated, until the stability of the joint is assured, when the regular course of massage and gymnastics is prescribed.

Another group of subspinal positions comprises those cases in which a real reposition was not obtainable, and the operator contented himself with a pseudoreposition, which means that the head of the femur has been brought from the posterior to the anterior surface of the pelvis without having been introduced within the actetabulum. One form of such a pseudoreposition, which may be observed especially in cases of extensive twisting and depression of the neck, is the placing of the great trochanter within the acetabulum.

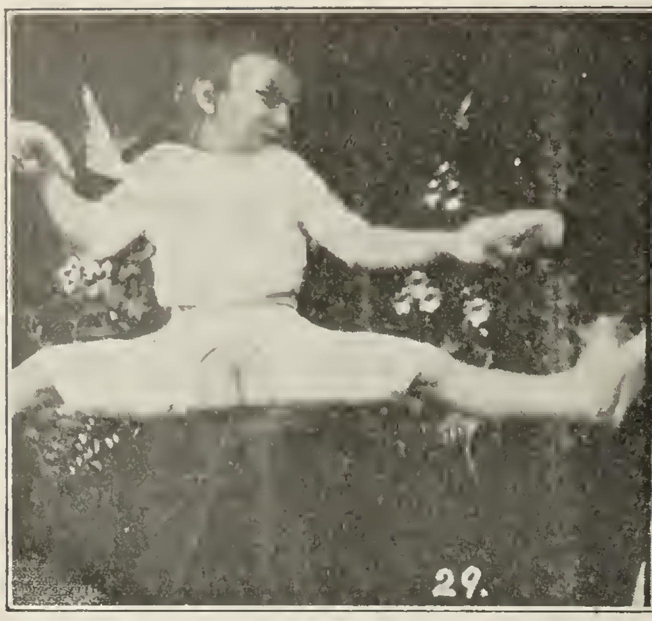
In case the anatomical conditions were unfavorable, so that no stability whatever could be secured, even a secondary operation will not improve upon the result.

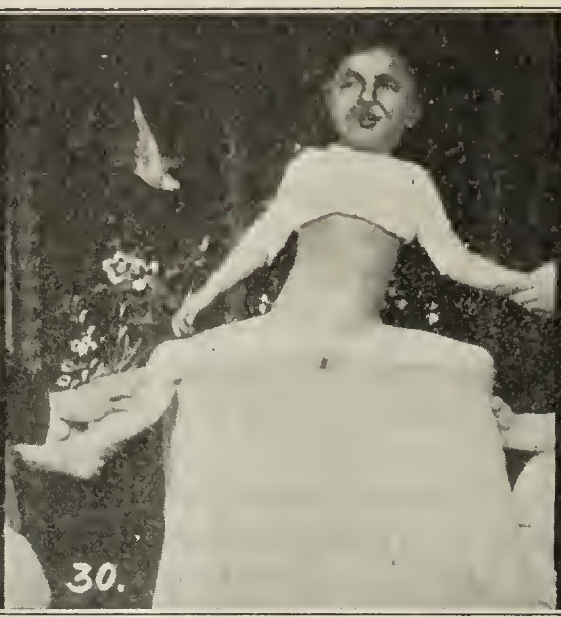
While the anatomical result is impaired through the appearance of a subspinal position, it is still possible that the functional result may be entirely satisfactory. It is paramount to this end that the femoral head be well supported by the anterior superior spine, so that it appears situated inward and below this spine, toward the median plane of the body. The security of the position diminishes at the same ratio with which the head approaches the outer side of the spine.

The subspinal position necessarily produces a shortening of the limb operated on, but this may be largely or entirely overcome by the tilting of the pelvis. Also the firmness and stability of the joint are diminished in comparison with the sound limb. This becomes more marked in all those positions and attitudes in which the hip joint is used as a counterfort of great resistance, for instance, if the patient stands on the limb operated upon, and elevates the sound side of the pelvis (Trendelenburg's phenomenon), or if the limb is elevated in the lateral position. But the stability in all these positions can be satisfactorily secured by careful supervision and exercises during the after-treatment. Under this influence the walking will rapidly improve.

The after-treatment is carried through on the same plan as in the typical cases. Special stress must be laid upon the care of the pelvitrochanteric muscles. Energetic, deep kneading of these muscles soon gives good results, as manifested in the gait and carriage of the patient. Special attention must also be given to the fixation of the femoral head underneath and to the inner side of the anterior superior spine. This will be accomplished by maximal abduction in the frontal plane (primary position), with thorough overextension (Fig. 24), and by the continued use of the night cushions or sleeping box. It should be mentioned that on account of the change in the anatomical conditions it will be impossible, quite often, to accomplish at once the maximal abduction. It would be wrong to desist from attempts to obtain this position. We gradually and carefully continue these attempts until the desired degree of abduction is reached. Patient perseverance will always furnish the desired result.

Group B, 6.—The head is located outside of





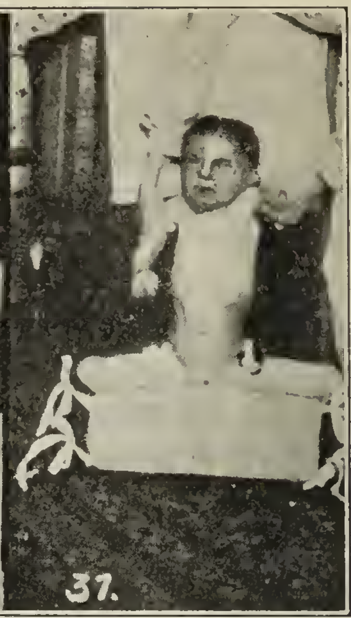


FIG. 29.—Exercise eliminating contractions of hamstrings.
FIG. 30.—Sitting split, legs abducted to 90°.

FIG. 31.—Sleeping box adjusted to a bilateral reduction.

the acetabulum on the lateral or posterior aspect of the ilium.

The first cases may sometimes give some functional improvement, according to the possibility of finally fixing and retaining the head in its new "position of lateral apposition" to the ilium. The after-treatment is carried out according to Group B, 5.

The latter cases must be considered as practical failures. The well pronounced telescopic sliding will be observed after a short time. These reluxations are due entirely to mistakes in technique, either during the operation or at the time of the removal and changing of casts. In very young children, it is advisable to repeat the operation, which quite often will furnish good or even anatomical results. In children of more advanced age, an attempt at least to improve the conditions is indicated. If such a procedure is opposed by the relatives, we must try to keep the head as much as possible to the front by the administration of massage and over stretching. The results accomplished in this way frequently surpass expectations.

BILATERAL LUXATIONS.

We have so far confined ourselves to the after treatment of unilateral dislocations, in order to outline as clear a picture as possible. Additional points concerning the after-treatment of bilateral luxations may be easily filled in, so far as they do not become apparent from the above mentioned rules.

It is paramount in the after-treatment of bilateral cases to consider each joint separately. In most cases, during the operation the joints will prove to be of different dignity. Consequently, the achieved results will be different. The after-treatment must be adjusted to these different conditions. It is necessary at the same time always to take into consideration the influence upon each joint of measures administered to the other. This is especially important with regard to walking. We have to be particularly careful not to put one limb into abduction while at the same time the other limb is in adduction. This was the condition which appeared every time when the practice was in vogue of operating upon a bilateral luxation in two sittings. This led in time to the abandonment of this mode of operating, because there was always experienced a decided interference with the stability of the limb first operated upon by the position of the limb which was operated upon in the second sitting, the first limb being made to assume the position in adduction by following its fellow, and making reluxation almost inevitable.

It is possible to reduce the numerous complications which may appear upon the removal of the cast to a few categories, as follows:

AA. Both femoral heads are well fixed in their normal anatomical position.

BB. Only one of the femoral heads is securely stationed, the other showing one of the conditions mentioned above under divisions 2 to 6.

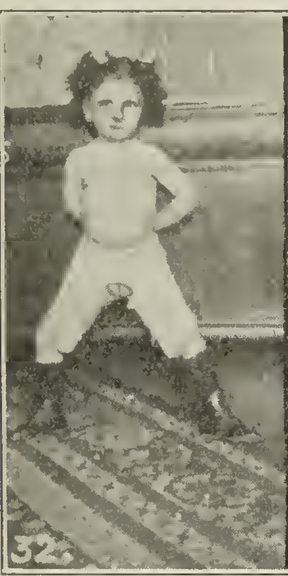
CC. Both femoral heads are in positions as described above under divisions 2 to 6.

AA. All that has been said concerning massage and exercises in Group A, 1, holds good, with the only difference that all the exercises must be used separately on each limb (Fig. 34). Those exercises which are practised in a prone or supine position are best administered at the same time to both limbs. This is particularly expedient in the maximal abduction exercises (Figs. 30 and 33). The reason is that if the exercises are practised at the same time with both limbs, accompanying movements of the pelvis which are apt to dissemble motions of the thighs are practically excluded. The abduction apparatus applied during the night must be adjusted for both limbs. The length of the cushion is therefore doubled, so that its greatest length reaches from flexed knee to flexed knee (Fig. 31).

It goes without saying that exercises in standing must be practised successively.

With regard to walking, in most cases a certain active correction can be achieved, which will progress after a few days to such an extent that the thighs form an angle not larger than 60° (Fig. 35). The child may then be urged to stand up and walk, but on account of the feebleness of the muscles, which have not much exercise under the cast, the child at first will be unable actively to maintain the position. It may even appear to the inexperienced man and the parents that the child has been made a hopeless cripple by the operation. The child is particularly helpless, and sometimes refuses to endeavor to make a step, and will only do so when supported under the arms and encouraged to put one foot before the other, as in first learning to walk. We aid the patient, to a great extent, in this endeavor, and prevent abduction beyond 60°, by means of a soft flannel binder or a padded leather belt, adjusted to and connecting both knees. This binder must be removed for the sitting posture and the legs must resume the primary position. You may be surprised, after three to six weeks of after-treatment,. to see this child walking erect, with a sprightly step and with a very much improved gait. After a few weeks the patient will be able to dispense with the binder and walk around with more or less abduction and apparent outward rotation. Do not be concerned about this, and do not forcibly rotate the limbs inward. It is very expedient, while a considerable degree of abduction remains, to elevate the outer edge of the soles so that the child is not compelled to step only on the inner edge of the feet, and thus produce distortion of the ankles. When the child has advanced so far, the further correction need not be hurried. Dr. Lorenz is quite content to see this position gradually disappear. Sometimes the limbs do not assume their normal anterior position much under a year after beginning to walk without the cast, the time varying with the nature and degree of the muscular contraction.

BB. Only one of the femoral heads is properly fixed. The other maintains one of the positions described under divisions 2 to 6. This condition, illustrating the anatomical disparity of two hip joints, will be observed frequently in practice.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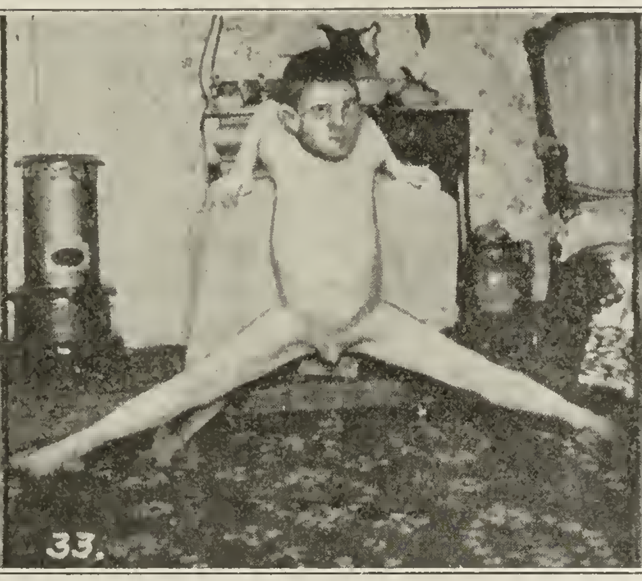
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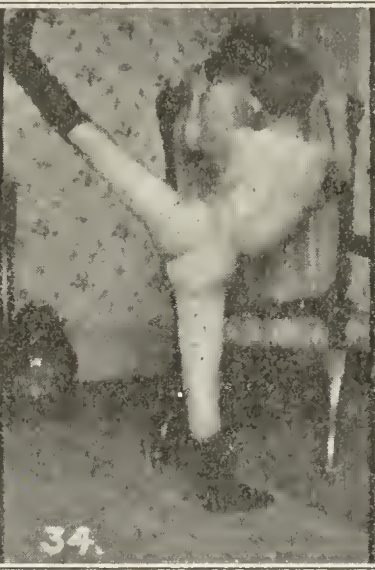
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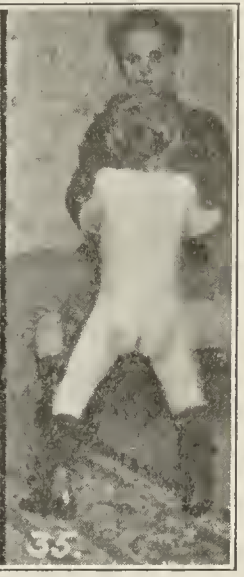
35.

FIG. 32.—Usual secondary plaster position, bilateral reduction.
FIG. 33.—Executing the double sliding movement. Unilateral movement shown in Fig. 15.

FIG. 34.—High lateral kick, executed successively upon each side.
FIG. 35.—Position of limbs soon after removal of plaster in secondary position.

Suppose the combination of a normal result, division 1, with the conditions of division 2, a loose joint, or 3, a rigid joint. The after-treatment will depend upon the looseness or rigidity of the abnormal joint. In case of a combination of divisions 1 and 2, the sole elevation under the limb which remains in the cast should be of considerable height to prevent the free leg from being brought into adduction.

If division 1 is combined with division 3, the correction will be made as above—that is, the rigid limb is fixed in medium abduction, and the free limb is treated with the regular course, it being unnecessary to modify either shoe, unless it is to elevate slightly the outer edge of the sole and heel. If the adduction belt is to be used instead of fixation in plaster, it should be constructed as previously described. In order to control abduction of the normal limb, it is expedient to secure it by means of a cuff and strap to the knee of the rigid limb.

If we have a combination of 1 and 4, the suprapubic dislocation is corrected as before described, by depression and fixation in plaster cast, while the normal limb receives the regular treatment.

In a combination of 1 and 5, it is paramount to make sure that the abduction of the anatomically correct limb shall not force the anatomically inferior limb into adduction by a parallelism of the limbs induced by the act of walking. In order to prevent this it is advisable to apply a cast in abduction of about 45° to the limb which is in subspinal position.

CC. Both femoral heads occupy positions as described under divisions 2 to 6. Among the probable combinations the following are of practical importance:

(a) Both hips are in position described in division 2. Renewal of the plaster in the primary position is here indicated.

(b) Both hips are as described in division 3, rigid, or 4, suprapubic. All that has been said concerning the correction or depression of the unilateral dislocation holds good with the appropriate changes in the bilateral cases. In division 3, in which considerable rigidity is the main feature, we may correct with or without general anæsthesia. After this is accomplished we may apply instead of a cast either a flannel binder around both knees or the leather apparatus, consisting of two knee cuffs connected by a strap.

(c) Both hips are as described in division 5, subspinal position. In these cases we may either proceed immediately with the after-treatment, if the subspinal position was intentional, or we may apply the second cast in medium abduction combined with overextension. This second cast has as its aim the securing of the subspinal position by forcing the femoral head as much as possible to the front and inner side of the anterior superior spine.

In all bilateral cases the after-treatment must be carried through according to the rules laid down in discussing unilateral cases. Theoretically various combinations among 2 to 6 are possible, so that, taking it all in all, we may encounter twenty-one different varieties. Enumerating and discussing more than the above mentioned may be easily dispensed with, because the practical importance of the remaining combinations is inconsiderable, and if one of these combinations should come under observation, it would be easy to select the necessary steps from the mentioned directions.

It does not seem inappropriate to advise those who are entrusted with the after-treatment of congenital hip dislocation to exert the greatest persistence and extreme accuracy in carrying out these exercises. No exact time limit can be set upon the after treatment. In a normal case, as in division 1, the patient may sometimes be discharged, except for occasional supervision, after six weeks of daily treatment, while in a case showing a great deal of resistance to the after-treatment, as in division 3, or another where there has been a suprapubic position and depression of the head, the patient would require possibly eighteen months to two years of careful gymnastics after the removal of the last plaster. Even after patient and nurse become thoroughly familiar with the necessary exercises, it is still unsafe to entrust the care entirely to them. You will find the excursions gradually becoming shorter, and resumption of the primary position painful or impossible. It may even become necessary to reapply a plaster, possibly in the primary position, in cases where the limb is slipping into adduction, in order to secure stability within the acetabulum.

We especially wish to caution against schematic proceedings, which are less permissible in this operation than in any other surgical interference. After having seen one hundred operations, the operator might face entirely new conditions in the one hundred and first case.

In attempting this outline, we are aware that we cannot do more than give a general survey of the conditions and the appropriate proceedings in the after treatment of the bloodless reposition. Practice and experience are the two other factors which will lead to success.

The concluding paper will be devoted to a discussion of the paralysis which sometimes follows the operation.

◆

Universal Vaccination in the Philippines.—Captain E. L. Munson, of the medical department of the army, before he left the Philippines for treatment in the United States, was the assistant to the commissioner of public health at Manila, according to the *Army and Navy Journal*, for August 27, 1904, and, as such, devised and put into operation a comprehensive and carefully prepared plan which has for its purpose the vaccination of all the inhabitants of the islands. If the work as outlined is carried out it is hoped that smallpox will play little part in the reports of infectious diseases in the future. Another new system adopted by Major E. C. Carter, surgeon of the army and the commissioner of public health, is the establishment of a veterinary division which will have direct charge of all matters pertaining to veterinary medicine and surgery throughout the islands.

THE PRESENT CONDITION OF TENONTOPLASTY.

By PROFESSOR VULPIUS, M. D.,

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An article on tendon transplantation which lately came to my notice, began with words to the effect that modern orthopædic surgery hinged on the subject of tenontoplasty. "We do not share such a onesided opinion, but rather are glad to be able to state, that modern orthopædic surgery strives forward in all directions and not without success."

Yet we must not overlook the fact that tendon operations have materially gained in breadth and importance, that they have led to a success, which has been hitherto regarded as incredible. The sphere of tenontoplasty has become so vast in our days, that it may well pay to give a review of our knowledge and skill in this field. In the following article we shall speak separately of the lengthening, the shortening, the transplantation, and the grafting of tendons, relying first on the literature, which already has attained a considerable volume, and farther on the author's own experience, gained through more than 400 tendon operations.

I. THE LENGTHENING OF TENDONS.

The simplest means to lengthen a tendon naturally is by a tenotomy; the tendon becomes so much longer, since the stumps of the tendon separate after the tenotomy. Linear tenotomy interests us in this connection only because the study of the healing process is of importance. The opinions about the healing process after a tenotomy were very contradictory at first; but of late some authors have brought light into this question. As material, the following has been observed: Immediately after an injury a primary process of regeneration begins by means of connective tissue, which starts from the peritendinæum externum and internum. To this is added, beginning only after several days to one week, a secondary process of regeneration of the tendon. It takes its origin in the stumps of the tendons. The latter swell and show microscopically many mitoses, not only in the region of the injury, but farther out centrally as well as peripherally. Gradually young tendon fibres start from there and form bundles, and through this new formation the connective tissue is replaced step by step. Thus the continuity of the tendons is regained anew, but the process is an extremely slow one. We have no specimen which gives evidence of the definitely terminated healing process, and it also seems that the repair of the tendons in an anatomical sense is not ideal, as is also borne out by our clinical observations. We are not seldom called upon to perform later on extensive secondary tendon operations after former tenotomies, and regularly we find that the tendon shows a somewhat scarlike change at the site of the former injury, and that it does not show such a completely intact tendon sheath, nor is it so sharply defined from its surrounding, as is normally the case. In the tendon operations which will be described in the following article the healing process takes place in an identically analogous manner in the essential stages.

We now turn to the plastic lengthening of tendons, and have in the first place to mention Bayer's operation. "Treppenschnitt." A sagittal cut divides the tendon into a right and left half; the severing of the tendon is completed by two crosscuts, one above and one below, starting at the opposite sides. We are now able to lengthen the tendon by the length of the sagittal incision and then to unite the two stump ends with each other. Depending on the direction in which we place our cross incision, we can also modify to a certain degree the direction of traction of our peripheral stump. This method has the disadvantage that the contiguous ends, which are used for suture only, correspond to the half of the breadth of the tendon—a condition, which can be avoided by the following modification: The division of the tendon from above downward is executed by a frontal cut, to which are added the crosscuts in front or in back; the displacement of the tendon ends takes place exactly as before described, the latter only offer the whole breadth of the tendon for suture. We mention, further, that Bayer has also published a subcutaneous modification; he only makes his cross cuts and effects the separation from above downward by redressement. By this method scars in the skin, which eventually might be troublesome, are obviated. A very simple method also consists in cutting the tendon across high up, where it is still in a broad contact with the muscle. In redressing after such a cross cut the tendon glides down upon the muscle, without, however, losing completely its contact with it. It has also been tried to lengthen a tendon by a number of small notches, but the large number of injuries to the tendon which is occasioned by this method, does not seem to be in proportion to the results attained. Finally, we mention the elongation of a tendon by the addition of an artificial tendon; a method which we shall describe more at length later on.

The process of repair after such plastic elongations, especially after Bayer's method, is known through experimental investigations (Hoffa). To what we have stated above about the process of healing is to be added the fact that a considerable modification in the process can be noticed in case of hæmorrhage and infection. In both cases the connective tissue outdoes the tendinous tissue, and the consequence is, that the newly formed tendon shows a scarlike structure.

The plastic lengthening of a tendon is advisable in all the diverse shrinking processes of the muscles; e. g., after the inflammation of a muscle, or in case of shrinkage of a nutritive origin, through a permanent approachment of the points of insertion, in paralytic contractions, in spastic conditions, as also in arthrogenous contractions. Finally, the lengthening of a tendon may become necessary in cases of transplantation, of which we shall treat later on. The results of the lengthening of tendons can well be considered perfect, considering the form as well as the function of the tendon; it gives a far more certain medium for elongation than a tenotomy in cases where the distance between the tendon stumps would be too great, which would bring with it the danger of nonunion.

II. THE SHORTENING OF TENDONS.

We can shorten a tendon by excision of the superfluous piece and by suture of the two cut ends. The contiguity of the tendons is, however, so small that the strength of the suture has to suffer from this. It is, therefore, more rational simply to cut the tendon which is to be shortened across, and to overlap the ends to the desired amount; e. g., to double it. This method has the disadvantage that we lose the continuity of the tendon in case of a failure—the tear of the suture —so that the condition is worse than before the operation. This inconvenience will be obviated by folding the tendon. The tendon is caught up by a forceps, drawn up, the formed fold stitched together several times, and the top of it taken centralward and here again united to the tendon, so that a threefold tendon layer is formed. Or the fold can be formed in the following manner: A flap, surrounding about half of the tendon, is detached and stitched to the freshened tendon farther up on the periphery. The freshening of the tendon may be done in its turn by the cutting of a small tendon flap, which, in its turn again, may be fastened to the tendon, so that, by means of the tension of these two tendon flaps the folding and shortening of the tendon is achieved. Outside of this we may use a frill seam to shorten a tendon: a needle armed with a double thread is drawn several times through a tendon in a longitudinal direction, and finally more or less tightly drawn in and tied. The tendon is thus ruffled and shortened. Finally, we still have to mention a kind of tendon shortening (Codivilla), which we may characterize as the ascending periosteal method, identical with the proceeding lately described by Reiner as tenodesis. This only comes under consideration when a complete paralysis exists. The paralyzed tendons are cut off, their peripheral ends are drawn upward, and are inserted with due tension into a suitable place under the mobilized periosteum. Hoffa and Borst have studied the healing process after the above described folding seam, as well as after the frill seam; the specimens which were obtained were reexamined later on by Seggel. We also possess a specimen from a human subject, which Hoffa obtained after a shortening of the tibialis posticus. What we already knew through clinical observations has been confirmed by these experiments. The thick tendon cushion which is formed through the shortening disappears gradually and makes room for a slight fusiform swelling. Corresponding to it, extensive processes of regeneration and degeneration have been found in the microscopical specimen, the latter especially after the execution of the frill seam, yet not to such a degree as to endanger the continuity of the tendon.

The indications for shortening are an overstretching of tendons and muscles after injuries, also the paralytic relaxation of muscles, atrophy due to inactivity, the overstretching of tendons through long existing deformity or through spastic contractures of the antagonist, and finally the paralytic flail joint.

We turn to the results and notice that the shortening may result in a return of function, if we had to deal with an atrophy due to inactivity or with a condition of incomplete muscular tension. I only need to mention the brilliant result, which we in part have to ascribe to such a shortening in the treatment of paralysis of the radialis. In the fixation of a flail joint, the shortening enters into competition with arthrodesis. The latter results in a more or less stiff joint, while the tendon shortening may effect a more springlike give in the joint, which is more useful for its action. Thus the tendon operation would, without doubt, deserve the preference, if the shortening were permanent. Whether this result is possible, or whether the tendon would stretch again after some time is a question which is of the utmost importance also for the transplantation of tendons.

We shall, therefore, enter upon it here. There is no doubt that a paralyzed tendon changes its structure, the more, the longer, and the more completely it is paralyzed. But after the study and examination of hundreds of such tendons as to their strength, I have never been able to convince myself that they were to any considerable degree more yielding or tearable. But I am, on the other hand, persuaded, that the tendon, with its returning function, may mend its structure. If a stretching occurs after the shortening of a tendon, it does not, therefore, seem to be due to the tendon itself, but rather to the degenerated muscle, which does not offer any resistance to traction or weight. The shortening, therefore, would promise to be more lasting, if we excluded the muscle, and this demand is best satisfied by Codivilla's method, so that I should like to recommend the latter for further experiments. Naturally the choice between tendon shortening and arthrodesis will differ with the functional importance of the respective joint. We shall, for example, decide more easily to stiffen the ankle joint than the wrist joint, because a fixation of the latter must be of very injurious influence over the movement of the fingers and the formation of a fist.

III. THE TRANSPLANTATION OF TENDONS.

This operation has, in latter years, been greatly talked about, although it was invented and tried in single cases at a much earlier period. I shall be the more detailed in its description, since it is the development of this operation, which I have for years considered my chief duty. First, we shall speak about the technics. Before operating, we have to lay down a plan resting on our knowledge of the paralyzed and healthy muscles, as to their situation, number, and strength, and reinforce this knowledge through an observation of the voluntary movements and further through an electrical examination. I regard the latter only as a means to a more exact diagnosis, which fails rather often, especially in children.

In deciding upon the positive action of the muscles, we have to think of the possibility of error through existing contractions, which prevent the action of certain muscles, and also to think of the atrophies, due to inactivity, which sometimes are very extensive; and, lastly, we have to think of the uncertainty of calculation due to the difference of adaptability of the central nervous system in the different individuals, and of the change of position of the muscles after transplantation. In operating we use the strictest asepsis and bloodlessness, demands which have been forced upon us by the results of experimental investigations. If we wish to treat a paralysis, we frequently face a double task. We have to get rid of the deformity occasioned by the paralysis, and also to get rid of the origin thereof—that is, the paralysis. We have, first of all, to correct the deformity absolutely, in order to be able to execute the transplantation with the desired and necessary tension of the tendons. The skin is best cut in a longitudinal direction, and to such an extent that it lays bare at least the peripheral end of the muscle to allow us to form an opinion about the condition of the muscle by inspection and thereupon to be able to revise our plan of operation. I should not advise the cutting of skin flaps, because they might favor the formation of scars between it and the tendons. The fascia has also to be cut lengthwise and the tendon sheath has to be treated with the utmost care. The freed tendons now may be transplanted in rather different ways. We may simply freshen the paralyzed and healthy muscles at the side and sew them together after the necessary stripping is done—a method which has been rarely used, on account of the weakness of the scar. Further, we can unite a tendon healthy as a whole to a paralyzed tendon—total transplantation, or translation of function. Through this method the power-giving muscle is naturally injured very little; the operation is simple, so that this method certainly merits the preference, where it is practicable. This, however, is only the case when the healthy muscle has a rather unimportant function, which we may sacrifice to the end of a transplantation. We may, however, lessen the sacrifice by attaching the peripheral stump of the power-giving tendon in an upward direction to a neighboring tendon of as much as possible the same function. The function of the power-giving tendon is in this way not lost; it only gives up its independence. In case the total transplantation should not be possible, we may help ourselves by dividing in part the healthy tendon—division of function. The continuity of function is thereby preserved, while one or more tendon slips may be used to supply the lost function.

(To be continued.)

Baltimore Medical College Appointment.—Dr. Harry T. Marshall has been appointed pathologist at the Baltimore Medical College, to succeed Dr. T. R. W. Wilson, who resigned at the close of the last session of the school to give his entire time to private practice. Dr. Marshall was elected to the chair at a recent meeting of the faculty of the institution. He graduated from the Johns Hopkins University in 1894, and has had extensive training in the Johns Hopkins medical department and in European laboratories. He was assistant for several years on the staff of Dr. William Osler and has also been instructor at the university.

THE TREATMENT OF MUCOMEMBRANOUS COLITIS BY COLOSTOMY.

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The medical treatment of mucomembranous colitis seems to be in most cases so unsatisfactory that any method which offers better results should be worthy of being noted. Therefore I desire to report the following case, which is interesting by reason of its long duration, notwithstanding careful medical treatment, and the apparently complete cure obtained as the result of surgical interference:

Case.—M. S., male, Syrian, aet. twenty-two years, came to Canada at the age of fifteen years, and has lived here or in the United States ever since. He gives a history of malaria at the age of nine years, and afterwards he had some urinary trouble for three years, with frequent micturition and some urethral discharge. He also gives a history of frequent attacks of amygdalitis. In 1897 he went to Louisiana, and diarrhœa began while working on a cotton plantation near New Orleans. He had frequent, painless stools, watery, sometimes containing blood, but no mucus. About four months later stools became more frequent, were accompanied by pain, tenesmus, mucus, and more blood. He was under medical treatment for some time, was recommended to leave the South, went to New York, and was in a hospital there in July, 1901, from which he was discharged "improved." He lost considerable weight, and was not free from symptoms, except when at rest and on a strict milk diet. At various times diarrhœa has been very bad, alternating with constipation for a few days in the intervals, after which he always passed more "slime" and blood than usual. He came to Montreal about four months before his admission to the Montreal General Hospital, on December 31, 1901, where he remained in one of the medical wards till March 5, 1902, and was discharged "improved." While in the hospital frequent careful examinations failed to reveal any *Amœbæ coli*, and a careful search for tubercle bacilli was also negative. He had a slight attack of pleurisy, but examination of the sputum showed no tubercle bacilli, and an x ray examination of the chest revealed nothing abnormal. During this period he frequently passed large mucous casts of the bowel, notably one three inches and a half long and several inches wide. No evidence of liver abscess was found, and a diagnosis of mucomembranous colitis was made. On March 20, 1902, he was readmitted to the medical side, suffering from the same symptoms, and my confrère, Dr. F. G. Finley, under whose care he was in the medical ward, suggested to me to try colostomy in his case, and, with that end in view, he transferred him to my ward on April 26, 1902. At that time he was having between three and eight stools daily, containing mucus, blood, and undigested food, watery and brown in color. He was markedly neurasthenic.

On May 3, 1902, under ether anæsthesia, a right sided inguinal colostomy was done. The cæcum was brought up and sutured to the parietal opening, after I had first removed the appendix, as I feared it might slough. On the eleventh day after operation the intestine was opened, and by the fæcal fistula thus formed the colon was kept at rest till June 28, 1902, and during this time the patient was allowed up and about, and was kept on a full and varied diet. Dating from two weeks after operation there was a steady improvement. At the end of six weeks the colostomy wound was closed in the usual manner of closing a fæcal fistula. The last time blood appeared in the stools was July 11th, and from that time on there was an absence of mucus and blood. On July 3rd he had five liquid stools, four on July 9th, and not more than two daily at any time thereafter. He regained his normal weight and was discharged well on July 23, 1902, and entered on his duties as operating room orderly at the hospital, which post he filled until he left, the following winter, to go south, as he found the cold of our winter too severe. He had no recurrence of symptoms or loss of weight at any time during this period of five months, which was the first time he had had such freedom from his trouble since it began in 1897.

In this case I operated with the intention of giving the colon physiological rest, and did not carry out irrigation of the bowel, believing that the pathological condition would disappear on the removal of the irritation due to the passage of the fæces, and deeming that no matter what form of irrigation was used, it would defeat my aim of rest to the inflamed bowel.

For the following retrospect of the literature of this subject I am much indebted to my clinical assistant, Dr. C. K. P. Henry, of Westmount. We find that, as far back as March, 1895, Hale White (1) recommended inguinal colostomy for the treatment of mucous colitis, asserting that this was the only rational way of putting the colon at rest and of furnishing a better means for local applications than could be done by rectal irrigations. The publication of this article in the *Lancet* induced Keith (2) to write a letter in which he records a case of colitis in which this procedure was accompanied by complete success. He operated in June, 1894 (the earliest case we can find mentioned), and the fistula was closed in the following February. In May, 1896, Hale White and C. H. Golding-Bird (3) did a right sided inguinal colostomy, following this by hot water irrigations, and effected a cure, closing the bowel in six weeks. The same authors, in a later article, report four cases of colostomy on the right side, done for mucomembranous colitis, and mention two others by other operators. The original paper I have not had access to, but a synopsis is given in the *Retrospect of Medicine* (4).

Somewhat earlier, in January, 1897, Macpherson Lawrie (5), following the advice of Mr. Grieg Smith, did his first case of colostomy on the right side for mucomembranous colitis, closing the bowel seven months later, and obtained thus a complete cure. In his article a similar case done by Mr. Turney is mentioned, in which a fatal issue occurred from hypostatic pneumonia. In the same year, a case of Sklefasowski's is mentioned by Schwab (6), in which a right sided colostomy was done for a condition of multiple polypi of the colon and rectum, with a very marked improvement in two months. The condition had been present for seven years, and was characterized by diarrhœa, pain, emaciation, and weakness. Franke (7) reports a cure of a case of colitis by the same method.

About the same time a case of chronic dysentery is reported from India as having been operated upon, but resulting fatally on the third day, though I cannot obtain the original article. A colostomy was done here by Powell (8).

Ballance and Godlee, quoted in Macpherson Lawrie's article, have reported cases of colitis treated surgically. A case of the latter, in which a left sided colostomy was done, showed marked improvement, but the patient died from a recurring phlebitis, which had been present previously, and was not incident to the operation. Ballance severed the ileum from the cæcum and brought both ends up to the surface, thus establishing complete rest for the lower segment. The patient died of hypostatic pneumonia one week later, without peritonitis.

Coming to the literature of the American surgeons, we find cases of inguinal colostomy reported by several. William A. Sullivan (9) notes a case of amœbic dysentery, in which J. Henry Barbat, in April, 1900, did a right inguinal colostomy, with the result that in a few days after operation amœbæ disappeared from the stools, and he was able to close the bowel in four months.

A very interesting case of hyperplastic colitis is one in which Howard Lilienthal (10) first did a left sided colostomy, and the mucous membrane of the bowel was seen to be covered with polypi. The hæmorrhages and other symptoms disappeared and the bowel was closed. There was a relapse and colostomy on the right side was done, and with irrigation the trouble again appeared to be cured. A second relapse led to a resection of the whole colon as far as the sigmoid flexure, into which the ileum was sutured, with eventual recovery, after several unique and inexplicable complications had developed. In Germany Boas (11) reported a case in which the patient, for five years before he first saw her, had chronic dysentery, or, to use his nomenclature—colitis ulcerosa. She had four or five stools daily, and passed blood, mucus, and pus. There was tenderness over the colon and rectal examination was negative. No amœbæ or tubercle bacilli were found in the fæces. He saw her three years before Steiner operated on her—eight years' duration in all—in March, 1901, when a right sided inguinal colostomy was performed. Subsequently he used irrigations of silver nitrate solution, and iodine solutions, both by rectum and by the fistula, the iodine solutions being especially efficacious. Not till the following year was it possible to close the fistula, as blood and Charcot-Leyden crystals only then disappeared. Eventually this was done in March, 1902, and the patient was apparently cured, had gained in weight, and was free from symptoms, save for slight constipation, probably the result of the long period of rest the colon had had.

The next method of surgical treatment for mucomembranous colitis is one brought forward by C. L. Gibson (12), and described by him in the *Medical Record* of September 12, 1903. He applies the Kader method of gastrostomy to the cæcum, and through the funnel-shaped opening obtained by infolding the anterior wall of the cæcum about a catheter, applies daily irrigations to the whole colon, using silver nitrate solutions. He alleges simplicity, ease of operation, no leakage, and a spontaneous closure of the opening on cessation of the introduction of the tube when the condition has healed. Of course, absolute rest is not here aimed at, and the author of this method depends entirely on the efficacy of the local applications to the mucous membrane. We find this method of operation adopted, and cases reported, by P. R. Bolton (13) and F. H. Markoe, the latter's case in an article by Gibson (14) himself, in which he reports a case of his own, in which death occurred on the eighth day, though no leakage occurred, notwithstanding the fact that irrigation was carried out during the first twenty-four hours following operation. Markoe's case was successful, a gain in weight of thirty-three pounds from December to February being reported, with complete recovery from symptoms, and closure of the opening within a few days of discontinuance of use of tube.

While operating in a case of colitis in which the appendix vermiformis presented at the abdominal opening, R. F. Weir (15) conceived the idea of using this otherwise useless organ, and originated the operation of appendicostomy, by bringing the appendix up out of the wound, suturing it there, cutting off the distal end, and introducing a catheter through it to the cæcum, and irrigating daily. The author mentions previous cases done by the Kader-Gibson method and with success. The first appendicostomy was reported in August, 1902, and in October of the same year, Willy Meyer (16), in a female patient who had had colitis for two years and had lost sixty pounds, carried out the same procedure with a resulting cure. The opening in the appendix he states will close spontaneously as a rule, and where it fails to do so can be sealed by the actual cautery (17).

Many other cases have gone on record, but these will serve to indicate the marked advance in this special line of abdominal surgery. From left sided inguinal colostomy a step was made when the whole colon was put at rest by an operation done on the right side, and this seems to be the better operation. The colon is at rest, and at the same time an opportunity is afforded to carry out irrigation from fistula to anus if so desired. The Kader-Gibson and Weir methods are ingenious ways of affording means to irrigate without inconvenience to the patient, permitting him to continue his occupation and, judging by cases reported, promising a cure of the disease. As yet we have not enough cases on record to determine whether this will answer in all, and whether an open colostomy will not often be needed, even in cases so treated. The Weir method can readily be seen to be applicable only to those cases in which the appendix is freely movable and is long enough to be brought to the surface and utilized as a drainage tube, which an abdominal surgeon knows is not likely to be found in a very large percentage of cases. The older and oft tried method of right inguinal colostomy seems to suit well in the majority of cases, and when we consider that nearly all the patients presenting themselves are chronic invalids, the six weeks or so necessarily spent in hospitals while the fistula is open is by no means too long a period in which to obtain relief from a condition which has often existed for nearly as many years. The inconvenience of the frequent changing of dressings seems to be the only serious drawback, as the mortality from the operation itself seems to be very small. The subsequent closure of the fæcal fistula I found very simple and easy.

If I have succeeded in arousing more interest in the surgical treatment of chronic colitis by this paper, I shall feel that a point more has been scored in the advance of surgical therapeutics.

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WHAT CAN BE DONE TO CHECK THE PROGRESS OF THE AGE DEGENERATIONS? *

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It is not my purpose in this paper to endeavor to propound a theory which should aim to secure perpetual youth, for since the days of alchemy have given place to the period of scientific investigation, few indeed will be found with sufficient credulity to join in the vain search of Ponce de Leon.

However, certain facts must be apparent to all careful observers: for instance, one man shows marked signs of hardening of the arteries at thirty-five or forty years of age, and if we keep track of him we are likely to find him brought to his end at fifty or fifty-five years with apoplexy, Bright's disease, or angina pectoris, or some other of the many diseases dependent on the same or similar fundamental conditions. Another man may show little or no signs of arterial hardening at fifty years, and live on indefinitely, dying when he has simply burned out, or from some acute disease.

When I received my rudiments of medical education, and for some time after from contact with other medical men, I was led to believe that the arterial degenerations, whether beginning at thirty-five or fifty-five years, were progressive, and would go on to the end, not necessarily at a uniform rate, yet so certainly that anything we could do would have little or no effect in checking the progress: and that treatment should be mainly directed to so ordering the life as to put no extra strain on the weakened blood vessels. And from what I know of the treatment generally employed at the present time, it seems that many, though not all, of the physicians in general practice still hold to the old idea.

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* Read before the Syracuse Academy of Medicine.

Let me say here that the degenerations to which this paper refers are those changes in the arteries and smaller arterioles or capillaries incident to advancing years and imperfect elimination or the gouty habit, in which the walls become thickened, stiffened, harder than normal, and later pass through the calcareous or atheromatous degeneration. The pathology of these conditions has been well studied, and hardly needs a passing mention at this time, and its importance as a factor in determining the length of human life is well known to the medical profession. Every one is familiar with the medical axiom: " A man is as old as his arteries." And when we stop to consider, we find that apoplexy, paralysis, most of the senile conditions affecting the brain and nervous system, Bright's disease and diabetes after middle life, senile gangrene, angina pectoris, and many other conditions are dependent on this as a fundamental cause, and a considerable majority of all deaths occurring after middle life may be charged to the account of degenerated arteries.

As to prognosis, we are disposed to think, and with a considerable degree of reason, that tissue once affected can never be restored, and the process is by some authors compared to a conflagration, leaving only charred and dead and useless residue. Prognosis finds no place in the chapter on arteriosclerosis in one of our best recent textbooks, and the most favorable prognosis I have seen is in Pepper's last *Textbook of Theory and Practice of Medicine.* In it he says: " The prognosis, as far as life is concerned, is not unfavorable, for many persons live to an advanced age in whom arteriosclerosis began at a comparatively early period."

Yet he adds: " The danger of renal and cardiac disease is always present, and embolism or cerebral hæmorrhage may cause sudden death at any time." He evidently doubts the accuracy of observation of Luzet, who states that he had seen the thickening in peripheral arteries in a syphilitic disappear under specific treatment.

Following such a prognosis the plan of treatment suggested is neither very positive in character nor inspiring of confidence as to results. It is intimated that much might be done in the way of prevention in these cases if one could anticipate the conditions, but the same author remarks that " this is as a rule manifestly impracticable." The treatment advised is hygienic, dietetic, and eliminative; and when recognized early, some authorities assert that such a treatment properly carried out will " serve to limit the extension of the process."

In planning a rational treatment, the causes and pathological conditions must be borne in mind. The most recent pathology says that the condition is a chronic endarteritis. The causes of endarteritis are syphilis, the abuse of alcohol, chronic lead poisoning, autointoxication from imperfect nutrition, indigestion due to too much food and too little exercise, gout, nephritis, and old age. Tobacco, coffee, and tea are said to predispose to the condition. Old age could not reasonably be blamed for arteriosclerosis, except as it tends to that lack of balance between the fluids and solids of the body which makes it increasingly difficult for the elimination to keep pace with the ingestion of food and the destruction of tissue.

Nephritis also renders elimination more difficult or well nigh impossible, and so we see the problem of the ætiology of arteriosclerosis may be narrowed down to one of poisoning and the elimination of toxic material.

It will be evident from the statement just made that all the causes ascribed save two, nephritis and old age, are removable, and it would be logical to suppose that after a removal of the cause the disease should be stayed in its progress, and this is what is somewhat doubtfully stated by some authors and scarcely hinted at by others.

Two or three cases which will be briefly reported here would point to the fact not only that there was a limiting of the process, but from the relief of certain symptoms which had been present for some time, it would seem that, in some degree at least, an improved circulation in the parts supplied by the diseased blood vessels would indicate a certain amount of restoration in the diseased territory. This improved circulation and nourishment might result from either of two things, first, the absorption of thickenings which had narrowed the lumen of the vessels; or, second, a bettered general circulation, with more dilated arterioles and capillaries, affecting to some degree the hardened and thickened vessels with the rest, thereby allowing the passage of more blood. Two of the cases embodied in this paper were cases of disease involving the cerebral circulation, and one the recurrent cardiac circulation, and in all of them it would be difficult to frame any other hypothesis than those mentioned, and the hypothesis crediting the improvement to a bettered vasomotor condition does not seem so plausible as the other, because the relief of symptoms has continued so long.

Case I.—Mr. A. B. W., married, sixty-four years of age, was first seen on April 29, 1902. He was tall, rather thin habit, but had always been well save for constipation and a fistula in ano, which was successfully operated on in 1893, after which his constipation was much improved.

Heredity: His father had a sickness at about sixty or sixty-five years, which was thought to be softening of the brain, and on which a very dark prognosis was made. But, to the surprise of all his friends, he recovered after a three years' illness, and lived a usual life for his years, reaching the age of ninety-two. His mother died at fifty-five, from appendicitis. Two brothers and one sister died from tuberculosis.

Patient's habits have been good, but he has been a hearty, and rather rapid, eater. Except for the fistula referred to, the patient had enjoyed uniformly good health, had been a hard mental worker, but had taken frequent summer vacations in European travel.

History of present trouble dates to January, 1902, when he began to notice a failing memory, but nothing else of importance till four days previous to his visit to my office in the last of April, 1902. At that time he was taken suddenly with an inability to use his right hand, which paralysis extended rapidly over the right arm, and also the right side of the face, and his tongue became thick, as his wife expressed it. After a few moments the paralysis passed off, and he was able to speak and use his hand as before the attack. Four such attacks had occurred before this history was taken, the only difference being that they did not all extend to the face and tongue, but all began in the same place and lasted about the same time.

When seen immediately following an attack his face was pale, his pulse feeble, 80 to the minute, but so irregular that at times it was difficult to count it. He was in about his usual flesh, tongue flabby and slightly coated, skin moist, bowels regular, and urine copious, 1012 sp. gr., sharply acid, and showed slight excess of urates.

Physical examination showed liver area slightly enlarged and sensitive to percussion, heart beat very irregular, but no valvular lesion. Reflexes normal. Diagnosis was arteriosclerosis affecting certain portions of the cerebral circulation, and also probably the circulation in the heart muscle. Lithæmic habit. The fleeting character of the paralysis recurring in the same place was explained on the theory that there was disease of the arterioles supplying the motor area affected, which was sufficient to cause paralysis only when the heart action became weaker than usual and vasomotor contraction was called into play to maintain the necessary blood pressure.

Treatment consisted in definitely prescribed diet, aiming to give the system only what it could thoroughly assimilate, and limiting especially the meat. (He had never complained of indigestion). Cool bathing and moderate exercise were ordered, and strychnine, $^{1}/_{30}$ grain, and mercury protoiodide, $^{1}/_{6}$ grain, were each ordered to be given three times a day.

On May 1st, a twenty-four hours' collection of urine showed 2 quarts 1.020 sp. gr., no albumin, no sugar, acid moderate. His blood count and also the volume of red corpuscles by the hæmatocrite were at this time normal, four weeks after he began treatment. His pulse at this time was nearly regular, 80 to the minute, and better in quality. He has had none of the attacks described as affecting his right hand since August, 1902, though he had thirteen or fourteen in all previous to that time. My latest note on the case was made on June 26 1903, when his pulse was 70, very good in quality, but slightly irregular in rhythm, though there were no intermissions, and his health seemed quite good. The use of strychnine was, however, still advised. Since last June he has been about his usual occupation, and when seen a few days ago said he was feeling in the best of health.[1]

Case II.—W. G., male, aged sixty-nine years, first came under my care August 25, 1898. Heredity generally good, but arthritic. Family lived to good ages, but were prone to die from apoplexy.

Personal history: He had typhoid fever thirty years ago, two severe attacks of vertigo three years before, or in 1895, one of which was so severe that he was removed to his home in a carriage after a physician had been called to his office, and several days elapsed before he was able to return.

His occupation was that of a civil engineer and contractor. His present illness began in April, 1898, after exposure to cold and dampness while superintending a contract. Up to this time he had been well, except as noted above, a good feeder, rapid eater, and of a full or plethoric habit.

He began to be lame first in his ankles and heels. Pain was worse at night, but stiffness was greater in the morning. More recently the lameness and stiffness had extended to his hips, shoulders and arms, so that when this history was taken he could not rise from a chair alone, or put on or off a coat or hat without help, and found it difficult to feed himself. His tongue was coated, pulse 86, bowels regular, urine 1.022, acid, and crystals of calcium oxalate in the sediment. Blood examination: hæmoglobin, 93 per cent.; volume of red corpuscles, 53 per cent.; red corpuscles per c. mm., 5,280,000. His skin was clammy and relaxed, nails corrugated and brittle. The physician by whom he was referred to me considered his case one of masked malaria, but no plasmodia could be found in his blood.

Diagnosis was subacute muscular rheumatism, in a plethoric type of lithæmia.

Treatment, diet, massage, electricity, and baths, sodium phosphate each morning, and 5 grains each of sodium salicylate and sodium benzoate in a large glass of water three times a day.

Recovery was slow, but by January, 1899, he was able to take up full work, and he had done partial work from the previous November. On January 25, 1900, began a series of attacks of vertigo, with waves of apparent congestion of the brain. The first was almost as severe, if not quite, as the one he had had two years before. The vertigo was repeated with such severity and frequency that he was confined to bed, where he remained for nearly a month. After three weeks a prominent consultant who had seen him in his previous attack was called, and gave a rather sombre prognosis, saying that he regarded the case as one of advanced arterial disease, and that the patient would probably die in one of the attacks. The treatment employed was a carefully directed diet, little meat, no sweets or fresh breads, no fried things, no sharp acids, except grape fruit, keeping the stomach underfed rather than overfed, and giving the patient from 2 to 2½ quarts of water daily, but no tea or coffee. Small doses of mercury protoiodide and strychnine three times a day, and a small amount of sodium phosphate each morning, were the medicines used.

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[1] Since this was written this patient has developed mental trouble, though at the time this paper was written he was in good mental condition.

All this time the pulse was generally slow, from 50 to 60, his vertigo worse when the pulse went above 60. At one time it was as low as 40 to the minute. A detailed history would be too long for this paper, but it may be noted that he recovered slowly, getting about and going to his office in about six weeks, still having some trouble. My notes of May 22, 1900, say "seems quite well, pulse 60, gave tablet of nux vomica and capsicum." During the following August he had two or three slight touches of dizziness, but none for which he consulted me till May 29, 1901, when he had a slight attack which soon passed over. Since that time he has attended regularly to business, with the exception of a spell of neuritis of his sciatic and crural nerves, brought on through unusual chilling and dampness, and at present in his seventy-fifth year he goes regularly to his office, generally walking, a distance of about a mile, and has had none of his old trouble worth mentioning since the spring of 1901.

Case III.—P. S., male, fifty-five years, plethoric habit, 225 pounds was seen first March 21, 1900. Heredity: mother died from apoplexy, father from some stomach or liver trouble, one sister from cancer of the stomach. He has a history of attacks suggestive of gallstones, and for two years has had frequent nausea on waking in the morning, but does not vomit. He has a good appetite, but eructates gas at meals and before eating. Constipated tendency. No physical examination was made at that time, but urine was 1.030 sp. gr., uric acid excess, no albumin, no sugar. No medicine was given, but a careful diet, more water, and more exercise was advised. It is not probable that the advice given was followed, for my notes of September 23rd same year show "urine 1.029 sp. gr., acid excess, no albumin, no sugar, two or three hyaline casts, cylindroids, and a few pus cells." More good advice and the patient was not seen again for a year. On September 30, 1901, physical examination showed no positive organic disease, but pulse varied while in my office from 84 to 110, and the effort of walking across my office would raise it from ten to twelve beats to the minute. His blood showed hæmoglobin, 115 per cent.; red corpuscles, 7,700,000 per c. mm. Urine was still about 1.030 sp. gr. More advice such as had been given earlier, but more strenuously urged, and the dangers of his present course plainly pointed out. This time the patient's cooperation was secured. Five months later his blood showed, hæmoglobin, 112 per cent.; red corpuscles, 6,220,000. Urine at 10 a. m., 1.014 sp. gr., no albumin, no sediment, and a morning specimen next day 1.026 sp. gr., and a few oxalate of calcium crystals.

He was free from dyspnœa on ordinary exertion, and his pulse was much better. Further detailed history will be omitted, and it only remains to be said that his blood reached normal density in about nine months from the first examination. His heart beat has been from 70 to 76 even after moderate exercise, and he still uses tobacco to about the same extent as before. His urine maintains a sp. gr. not exceeding 1.022; and he has passed a life insurance examination before two of our good physicians, and been insured in a first class insurance company within the past year.

I do not say that any or all of the persons referred to in this paper will not die from some disease dependent on arterial degeneration, but it seems natural to suppose that the mode of living which will result in so much improvement in these cases, if persistently adhered to, should leave them for acute diseases to take off or to burn out with old age. And it would seem also, as before mentioned, that improvement which seemed so lasting as in the cases quoted must involve actual improvement in tissue.

It has been impossible in a paper of this length to give detailed diets and treatment in these cases, but if enough has been said to stimulate thought and work along the line of this most interesting class of cases the object of the paper will have been attained.

Waltham, Mass., Hospital.—Work is progressing rapidly on the new Lawrence ward for contagious diseases, now in process of construction at the Waltham Hospital. The building will be entirely of granolithic construction, including the outer and inner walls and the floor. The outer walls will be vaulted, thus insuring a dry, warm, and fire proof building. The building is to be divided into separate blocks by transverse and longitudinal corridors. A two story corridor will connect the building with the present Westland house, which will serve as the nurses' home and administration building. The building will be adequately lighted, and will have a separate heating plant. The building is provided for by the generosity of the Lawrence family, who have generously remembered the Waltham Hospital by bequests for this purpose. One special feature of the plan makes provision that patients from all wards, when discharged, pass through sterilizing rooms containing lockers for clothing and having separate exits to the street.

INFLUENZA OR ACUTE ARTICULAR RHEUMATISM? THEIR DIAGNOSIS, WITH A REPORT OF MY OWN ILLNESS.

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It frequently happens that the practitioner, especially the younger one, is puzzled at the bedside of his patient, not knowing into what category the case belongs, and unable to derive any knowledge from the standard authorities. The reason that diagnostic doubts are so seldom elucidated by our textbooks is, that the latter describe only the average types of disease. In actual practice, however, cases, as a rule, differ widely from their type, resembling other clinical entities in their most salient features, thus rendering an exact diagnosis almost impossible. Better information is often obtained from monographs, which do not describe types, but rather cases observed at the bedside in every detail. Among such monographs I am inclined to consider those most valuable in which it is possible to eliminate the unreliability of all the statements of the patients, e. g., monographs, in which physicians give exact descriptions of their own illnesses. There being but few of the kind in existence has prompted me to publish my own case.

My case resembled influenza and acute articular rheumatism. It will, therefore, be proper first to describe the cardinal symptoms of the two diseases.

Acute articular rheumatism (1), as a rule, begins suddenly with moderate fever, painful swelling and redness of the joints, great prostration, rapidly increasing pallor of face and skin and considerable sweating. It is quite characteristic, first, that several joints become involved; secondly, that they become affected, not simultaneously, but in rapid succession. The involvement of each joint lasts a few days, or even a few hours, only. In many cases endocarditis and pericarditis occur. The temperature, apparently irregular, but mostly remittent, augments with every new local inflammation. Pathognomonic of acute articular rheumatism are the spontaneous profuse sweats, the predisposition of the family, and the favorable influence of salicylic acid and its derivatives. The average duration of the disease in cases uninfluenced by specific medication is from three to four weeks.

Typical cases of influenza (2), as a rule, begin with chills, violent headache, backache, pain in the limbs, great prostration, and anorexia. These characteristic symptoms are accompanied or followed by a catarrhal inflammation of the respiratory passages. In some cases, disturbances of the nervous apparatus predominate, in others disturbances of the gastrointestinal tract. Strümpell (3) speaks of a "rheumatoid" form of influenza, characterized by pains in the back, loins, extremities, and joints, of unusual violence. The pain is situated in the muscles and their attachments. Swellings of the joints are scarcely ever seen. Cardiac complications are quite rare and have only recently been studied with care, viz., the thorough work of A. E. Sansom (4). A. E. Wood (5) gives a concise description of the cardiac complications. He divides them into two classes, the organic and the functional. In the first he includes endocarditis, pericarditis, myocarditis; the second one is characterized by palpitation, arrhythmia, and bradycardia. Oppenheimer (6) considers bradycardia of little diagnostic value, while Leichtenstern (7) has found bradycardia more frequently in influenza than in any other disease; it is associated with arrhythmia and is of nervous origin, as is proved by its sudden onset in otherwise healthy individuals, and its transitory character. Functional disturbances appear in adults as well as in children. Their occurrence in the latter has ably been demonstrated by H. B. Sheffield (8).

The average duration of influenza varies from four to five days in mild cases, to seven to ten days in severe cases.

Somewhat characteristic of influenza is the convalescent stage, which, even in mild cases, may last a long time. Great weakness, prostration, depression, and sleeplessness are present. The patient's condition is further aggravated by his disquieting cardiac sensations, which latter are augmented by the slightest mental or physical exertion. The protracted convalescent stage is sometimes graver than the short acute attack.

I have been unable to find many authors who think is necessary to distinguish acute articular rheumatism from influenza. Indeed, from the above description it will readily be seen that these two diseases are well defined, and would hardly be confounded. Yet if we consider Strümpell's so called "rheumatoid" form of influenza and the cardiac complications, we find that influenza may very well present a picture similar to, and difficult to distinguish from, acute rheumatism. In both diseases we have, as the main symptoms, fever and involvement of the joints and heart. The character of the fever and heart affection may be alike in both, but the affection of the joints affords us differential points. In rheumatism the joints are swollen, red, and hot, in influenza they are not. The seat of the pain in rheumatism is in the joints themselves, in influenza it is in the muscles and their attachments. Therefore, we have a distinguishing symptom, which I could not find mentioned anywhere in treatises on this subject, namely, even slight passive motion in the joints considerably increases the pain in rheumatism, but very little or not at all in influenza. Other differential points are the spontaneous sweats and the family predisposition in acute rheumatism, whereas in influenza of diagnostic moment is the protracted convalescence with its accompanying nervous heart disturbances.

The description of my own case is now submitted as an instructive example of the subject in question.

First Attack.—After an exposure on the 3rd of December, 1903, by which my feet became cold and wet, I awoke the following morning with a violent headache. That afternoon I felt chilly and uneasy, and the temperature rose to 102° F. These symptoms lasted three days, and were not relieved by small doses of quinine and salol. After cessation of the fever, rhinitis of four days' duration appeared, followed by laryngitis, which caused considerable hoarseness for two days. During all this time there existed some cough, indicating a bronchial affection. The usual daily occupation and mode of life were resumed on the 7th of December.

Relapse.—Nine days after the disappearance of the fever, i. e., on the 15th of December, I perceived difficulty in walking up and down stairs, caused by a sensation of weakness and pain immediately below the patellæ. The following day a temperature of 102° F. and some pain in the limbs made their appearance. The temperature remained stationary on the 17th, but the pain increased enormously. Quinine and salol afforded no relief, but phenacetin with caffeine had a good effect, causing perspiration and diminution of the pain. The relief, however, was of short duration. Except when the effect of the drug lasted the pain in the limbs and the back was so intense that I could not lie for five minutes in one position. This unbearable pain was the predominating symptom until the evening of the 18th, when a much graver symptom appeared, remaining thereafter the predominating feature in the case. It consisted of an irregularly intermitting, slow pulse, causing indiscribable distress and precordial anxiety with every intermission of the heart beat. Stimulants, like strychnine, cognac, champagne, did not alleviate the distress, but great relief was obtained by walking about in the room, whereby the regularity of the pulse was restored. To this latter remedy recourse was taken until after midnight, when weariness compelled me to lie down again and suffer. Besides, a dull pain in the left shoulder had appeared about 10 o'clock; it was slight in the beginning, but increased later to such intensity that even the pressure exerted by the bedcovers was unbearable. The pain was very superficial, limited to a small spot in the region of the ligamentum acromioclaviculare and lasted, gradually decreasing, about fifty hours. These symptoms persisted with greater severity on the 19th. Between seven and eight p. m. of this day I commenced to feel pain in both knees. The pain in the right knee was slight and lasted only a few hours, while that in the left knee was intense, radiated into the calf and lasted about thirty-six hours. In the night of the 20th, slight pain was felt in the right shoulder, it lasted about twelve hours. These four affected joints were neither swollen, red, nor hot. While, on account of intense pain, which paralyzes by reflex inhibition, active motions could not be carried out in the joints, passive motions were easy and did not increase the pain in the least.

Circulatory System.—The arrhythmia lasted six days. On the third day it became so alarming and the pulse so weak that general apathy set in, calling for the administration of a camphor-ether injection. This had the result of somewhat strengthening the pulse, but had no influence on the arrhythmia. The pulse varied between 45 and 92 beats per minute, most of the time between 55-60. It was twice 70, with a temperature of 104.4° F. The arrhythmia caused the greatest suffering in the horizontal, and the least in a sitting position. I, therefore, constantly begged to be permitted to sit in an easy chair, my request being refused even by one of our most prominent consultants. I fail to see the harm to be wrought by such a position. On the contrary, a retrospect has convinced me that a sitting position would have spared me a few sleepless nights, would surely have lessened my suffering, and, perhaps, shortened my illness. When during the sleepless nights the distress became unbearable, I sat up in bed for from five to ten minutes, whereupon I invariably felt relieved; but soon getting tired I had to lie down again and suffer agonizing pain.

Respiratory Passages.—The respiration was shallow during the presence of the arrhythmia, otherwise there was hardly anything worth mentioning.

Gastrointestinal Tract.—The disturbances consisted of slight constipation, moderate meteorism, anorexia, coated tongue, and bad taste in the mouth.

Other organs showed nothing abnormal.

The temperature was not characteristic. It was above normal for eleven days, most of the time ranging between 101-102.5° F., and reaching twice 104.4° F.

Changes of Medication.—Aspirin taken exclusively as an antipyretic and analgetic from the 19th of December on, although in small doses, which hardly influenced the temperature—aspirin, 0.5; caffeine, and sodium benzoate, 0.2—had a most favorable effect, inasmuch as in from one half to an hour after its administration, it, almost invariably, produced perspiration, which sometimes was quite profuse, followed by a diminution of the pain in the limbs and the precordial distress. Cool, gentle sponging gave some relief, while ice cold, forcible sponging increased the uneasiness and discomfort.

Convalescence.—The convalescence, beginning on the eleventh day after the onset of the relapse, was marked by the following symptoms: Great weakness, prostration, bradycardia, precordial distress appearing mostly at nights; bad taste in the mouth for the first week; nervousness, which, in the third week, increased enormously, causing sleepless nights. The pulse varied between 55 and 60. From the beginning of the third week my nights were almost sleepless, and in the daytime there obtained a state of uncontrollable excitement. The slightest exertion caused marked dyspnœa and præcordial anxiety, so that I was in constant dread of having acquired a permanent heart lesion. Not before the beginning of the fifth week did this highly increased nervous irritability abate. I then began to sleep well, with the result that all the oppressive symptoms ceased immediately, sufficient proof that the heart trouble was only due to a neurosis.

Physical Examination.—At the first exact examination, on the 19th of December, a slight enlargement of the heart dulness to the left was found, and an indistinct murmur, or rather, muffling of the heart sounds, could be distinguished in the third intercostal space on the left side. The heart dulness assumed its normal size with the cessation of the arrhythmia, while the murmur persisted longer. The lungs failed to expand properly with inspiration during the presence of the arrhythmia, and slight crepitation was heard in the region of the sixth rib in the right mamillary line. Vidal's test was negative. The other organs did not show anything worth mentioning. On the twelfth day of the convalescence the crepitation and the heart murmur were still to be heard, but there was no enlargement of the heart dulness, or accentuation of the heart sounds, so that the murmur can justly be considered to be of accessory nature.

The diagnosis made by the competent internist who treated me and whose unselfish and devoted attention I now take pleasure in acknowledging, was one of acute articular rheumatism and endocarditis.

I leave it to the reader to decide, whether or not this diagnosis was correct. The previous and family history may render the decision easier. No cases of acute articular rheumatism ever occurred in my family. I was never subject to it. My heart is normal, judging by my great endurance in physical exercises. Seven years ago I had a slight attack of bradycardia following a mild " cold," which undoubtedly was influenza. Two years later I had a similar attack. In June, 1900, I suffered for about a week from fever and some intestinal disturbances, which were later followed by a bradycardia and arrhythmia of one day and a half's duration. Considering the negative family and the previous history, in connection with the fact that in my present illness there was no local articular swelling, redness, or heat; that passive movement in the joints did not increase the pain in the least, showing that the seat of the pain was not in the joints, but rather in the muscular attachments; that there hardly was any sweating without aspirin; that the convalescent stage corresponded exactly to that observed in undeniable cases of influenza, there is no doubt in my mind that the aforesaid diagnosis was incorrect and that it was a question of " rheumatoid " influenza complicated by a functional disturbance of the heart.

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THE TREATMENT OF STATUS EPILEPTICUS, WITH REPORT OF TWO CASES.*

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The two cases I have to report may be of some interest.

Case I.—I. L., female, aged eleven years, imbecile, was admitted to the Craig Colony, June 28, 1900. Family history negative, except that one sister at the age of twenty-two months had convulsions before her death from peritonitis.

I. L. was well nourished and physically healthy. Mental deficiency marked: knew her name and could answer a very few simple questions; was wholly unable to care for herself.

Her epilepsy dated from an attack of gastritis, at the age of three years. They were both *grand mal* and *petit mal* in character, the former predominating. They occurred at first monthly, then two or three times a month, with a tendency to group themselves in series, each series lasting two or three days. The first six months at the colony she had eighty *grand mal* seizures. Of late they have been a little more frequent; during the past six months she had one hundred and two, mostly *grand mal*. In those observed she has an epigastric aura a minute or two before the onset of the convulsion. The convulsion is limited to the left side, is clonic in character, and lasts from twenty to twenty-five seconds.

On October 1st, she had five *petit mal* seizures between nine o'clock in the morning and 12.35 in the afternoon. Prior to this she was up and dressed, but did not seem quite so well as usual. It was noted that she lay down two or three times. She ate breakfast and a light dinner as usual. She had severe convulsions, clonic in character, as follows: 1.30, 1.45, 1.55, 2, 2.05, 2.12, 2.14, 2.17, 2.19 p. m., each lasting from twenty to twenty-five seconds. The left side of the body, face, arm, and leg were involved in the order named, the force of the convulsions diminishing from above downward.

A physician saw her at about 2.20 p. m. She was then comatose and in a state of collapse. Her face and neck were cyanotic. Cold perspiration covered the whole body, being especially marked on the face. The veins of the face and left arm were noticeably distended and dark. The eyes were rolled upward and to the left; pupils dilated, the left more than the right. Reaction to light and accommodation wanting. The extremities were cold; both feet being in plantar flexion, the left more than the right. The pulse was weak, small, and frequent. Clonic convulsions in rapid succession involved the left side of face, and were particularly strong in left upper eyelid. The mouth was drawn to the left; the muscles of the whole left side were involved. The left arm was partly flexed. The spasms of the left leg were not so strong as in the arm.

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* Read before the Livingston County Medical Society, October 20, 1903.

There had been involuntary urination. After a time the convulsions traveled to the right side, showing most in the right arm. The plantar reflexes were absent during the convulsions.

The patient had been given two drachms of the triple elixir of bromides, each drachm of which contains five grains each of the potassium, ammonium, and sodium bromide, before the onset of the status. On account of the state of exhaustion and feeble heart action, two drachms of spiritus frumenti were given hypodermically. Heat was applied to the extremities and cold to the head and over the præcordial region. Her temperature ten minutes after I first saw her, at 2.40 p. m., was 101.8° F.; pulse, 152; respiration, 37-39 per minute. She was given a hypodermic of apomorphine, grain $^1/_{15}$th, at about 2.25 p. m. Venesection at the arm was performed immediately, and the withdrawal of blood was kept up until the face was less livid in color. Venesection improved her condition materially. The amount of blood withdrawn was estimated at from eight to ten ounces. One quart and a half in all of normal salt solution was introduced into the circulation through the vein which had been opened for venesection, and by means of hypodermoclysis. About a quart of the same solution was also introduced per rectum. Just before this, thirty grains of potassium bromide and twenty grains of chloral hydrate were given per rectum. She also had a drachm of a 50 per cent. solution of potassium bromide, hypodermically at 2.35 p. m.

At 2.40 p. m., the pupils were widely dilated, although the patient's general condition was better. Pulse still weak and frequent, 152; temperature, 101.8° F.; respiration, 37. Strychnine sulphate, grain $^1/_{30}$, was given hypodermically. Ten to fifteen minutes after the introduction of the salt solution an appreciable change for the better was noticeable.

At 3 p. m. her pulse was 136 and stronger. The clonic spasms persisted. As the pulse grew stronger, the pupils contracted. The cyanosis disappeared coincidently with the improvement in circulation. At 2.50 p. m. it was considered safe to give her whiffs of chloroform. Fifteen minutes later the spasms began to diminish. At this time the pupils were normal, her color good. It was interesting to note that, after the convulsions had ceased in other parts, the left eyelid was held in clonic spasm for about five minutes. All convulsions ceased at 3.15 p. m., making the duration of the status epilepticus about an hour.

The patient remained in a comatose condition for four hours and in a semicomatose condition through the following night. It was noticed that she favored her left side during the rest of the day and the following night. There were some symptoms of exhaustion following during the night, which called for stimulant treatment of the heart. Cold sponge baths and enemata were used to lower the temperature, which rose steadily until at midnight, when it reached 106° F. The pulse ranged from 130 to 150; respiration from 25-30 per minute. The temperature dropped gradually to 99° F. during the next day, pulse and respiration improving in proportion. On October 3rd, all were normal. The side of the body most involved during the convulsions was weak during the following day. Reflexes diminished; urine normal. On the second day following the condition of status, the reflexes were found to be normal; on the third day the patellar reflexes were exaggerated. The patient was up and about. She was a little duller mentally than usual. The next day she showed no change from her usual condition of health.

Case II.—R. O., a high grade imbecile, aged ten years on admission to the colony, in June, 1902. Epilepsy developed at seven years and a half. Before entering the colony she had from four to seven *grand mal* seizures daily. Vertigo was the usual aura. During the first seven months at the colony she had on an average of from nineteen to twenty seizures a month, all showing a tendency to occur in groups.

On August 19, 1902, after eight diurnal *grand mal* seizures at the following periods, 11.40 a. m., 6.41, 7.20, 7.35, 7.40, 7.45, 7.50, 8 p. m., a state of continuous unconsciousness ensued, together with rapidly recurring clonic convulsions, preceded by short tonic spasms which involved the left side of the face and arms, later involving the right arm. This condition lasted an hour. During the last twenty minutes of the time both lower extremities were involved in rapidly recurring tonic and clonic convulsions, while those of the upper extremities lessened in severity and finally ceased. During the hour the temperature rose rapidly to 104° F.

Bromides and chloral hydrate were given per rectum. Chloroform inhalations were begun at first and maintained for some time, but had very little, if any, effect. The median cephalic vein of the right arm was opened, and after the bleeding about a pint of normal salt solution was introduced. In fifteen minutes a marked diminution in the severity of the spasms was noted. Another pint of salt solution was given per rectum. Finally the spasms ceased altogether. The following day the patient was duller mentally than usual and slept a good deal. She made a rapid recovery.

From my experience, I am of the opinion that in intravenous saline injections we have a valuable remedy in the treatment of status epilepticus. A point of value lies in their early use. At the same time, we must not neglect active measures of sedation that not infrequently have a heroic aspect.

Resignation at Flushing Hospital.—Dr. John Teas, who has been the house physician at the Flushing Hospital for fifteen months, will sever his connection with the local institution on October 1st. Dr. Teas says that he will coach the University of Pennsylvania football team in the fall and on or about December 15th he will resume his professional practice at Philadelphia.

IMMEDIATE REPAIR OF INJURIES OF THE PELVIC FLOOR.*

By H. C. COE, M. D.,
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In confining myself to a single class of recent lacerations, I desire to emphasize my belief that by careful attention to these lesions immediately after labor, the patient can be spared the necessity of subsequent operations for pelvic floor laceration, prolapsus, etc.

I assume that it is the practice of all my hearers after a severe instrumental, or manual, delivery, to make a careful examination of the soft parts for deep, as well as for superficial, lesions, with a view to the immediate, and especially the subsequent interests of the patient. While our present aseptic technics robs these injuries of their importance as channels of infection, it is contrary to the instincts of a surgeon to leave extensive raw surfaces to heal by granulations. The question is not "*Do* we repair such lesions?" but "*How* do we repair them?" It must be confessed that the temptation after a long, tedious labor, terminated instrumentally, which leaves the patient exhausted and perhaps in considerable shock, when the light is often bad (especially at night, or early in the morning) and the assistance not the most skilled, is to patch up the bruised tissues hastily and "trust to Nature"—whatever that may mean. Just as after a bad laparotomy, where we have slurred over important details, thinking that the patient may not live anyhow, she *does live*, and lives to be a standing reproach to us.

If we apply the ordinary rule of the modern accoucheur—to leave a woman in as good condition as we found her—we cannot afford to do superficial work. The public demands of us quite as much as the profession in these days. I need not go into the subject of injuries to the pelvic floor, as that is elementary. We understand perfectly well why it is that a woman who, after a medium forceps sustained apparently a superficial tear, repaired at the time, presents herself a month or two later with a rectocele prolapse, and all the evidences of loss of support of the pelvic organs. The fact is (as we teach our students) that she had *not* a simple laceration of the perinæum—that insignificant structure between the fourchette and the anus—but an actual laceration of the fascia and levator ani muscles *outside* of the vaginal tube. As has been clearly demonstrated by my assistant, Dr. Studdiford, by means of dissections and frozen sections, the essential point in the deeper lesion of the pelvic floor is really separation of the involuntary fibres of the levatores ani from the vagina, with or without anterior and posterior tears (of the triangular ligament and sphincter ani). Dr. Emmet long ago pointed out the clinical result of the lesion, and demonstrated the fact that the ordinary operations of colpoperineorrhaphy failed to repair this. From our experience in a considerable number of cases at Bellevue, we have found that the circular buried suture suggested by Studdiford, which penetrates the entire thickness of the vagina at the sulci, does permanently reattach the torn fascia and restore the parts to their normal condition. Hence I affirm that this suture, or a modification of it (or chromic gut or better, kangaroo tendon) should be used in the immediate operation if the surgeon expects to avoid the rectocele which is itself an indication of imperfect technics, no matter how satisfactory the immediate result may appear to be. It can be easily and quickly inserted, entirely controls the troublesome oozing which is often present, and brings the separated levatores ani into close contact with the relaxed vagina. The sooner we recognize this as the common and inevitable consequence of difficult delivery, the sooner we shall learn to look for it and repair it *at the time*, and not wait until its results have become patent. But the best test is the ultimate condition of the patient, as indicated in the following illustrative case:

Six weeks ago I had occasion to anticipate by two weeks the delivery of an old primipara, with a normal pelvis, but rigid soft parts, whose condition had caused me anxiety from the beginning of pregnancy. The fœtus was large, lay in an occipitoposterior position, and the head could not be engaged. Without going into details, suffice it to say that the membranes ruptured early, it was necessary to complete the dilatation manually, to apply high forceps (on account of fear of rupture of the uterus), and delivery of a living child was effected only after an hour of hard work, during which, in spite of the greatest care, the cervix was badly lacerated and the pelvic floor also, some of the fibres of the sphincter being involved. The uterus contracted well, but hæmorrhage was so profuse that I at once exposed and sutured the cervical tear. Having skilled assistance I spent fifteen or twenty minutes repairing the laceration of the pelvic floor, using both buried and superficial sutures, the parts being thoroughly exposed by a gloved finger introduced into the rectum. My aim was not only to strengthen the sphincter, but to pass my sutures clear through the vagina, in order to pick up the torn levator ani fibres or fascia, especially at the points where they are attached to the vagina (at the lateral sulci) and also where they blend with the sphincter ani.

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* Remarks at the symposium at a meeting of the American Gynæcological Society.

The patient rallied well after her prolonged ether anæsthesia (nearly two hours), and had an afebrile convalescence, being able to nurse her baby. The ultimate result, with which we are immediately concerned, has been most satisfactory. Anatomically and symptomatically, she is apparently in just as good condition as she was before delivery.

That it *pays* to devote such careful attention to recent lacerations has been proved so many times in my experience, that a patient must be in a serious condition indeed, when I would be content hastily to close a lacerated pelvic floor with a superficial continuous catgut suture, as I have done (and seen others do) so often in the past. In laceration through the sphincter I believe that a successful result from an immediate operation should be the rule and not the exception. Only twice has the condition of the patient been such that I have thought it wiser to operate during the first week than later.

It is true that the bruised condition of the tissues often renders immediate repair difficult, but with a little patience the parts can be brought in exact apposition. Provided that the ends of the muscle have been brought together with a nonabsorbable suture, that the after treatment is intelligent (especially as regards securing a loose movement of the bowels on the third or fourth day), and above all, the asepsis is perfect, I see no reason to look for anything but perfect success. How much future trouble and annoyance the patient is spared is self evident.

The most brilliant obstetrical operation counts for little if the patient is left with incontinence or a rectovaginal fistula. And it is just in these cases of complete laceration that I insist upon the necessity of repair of the deep pelvic floor lesion, as well as of the perinæum. One's attention is so apt to be centered on the torn sphincter that one overlooks the mischief that is done prior to the delivery of the head.

In a word, the modern accoucheur must be a thoroughly trained gynæcic surgeon, whose scientific imagination not only recognizes the true lesion at the time of its occurrence, but looks into the future and sees the patient's condition months after the injury. Our esteemed fellow, Dr. Hirst, was right when he said that "the specialist in obstetrics must be an expert in the surgical treatment of diseases of women."

A CASE PRESENTING UNUSUAL DIFFICULTIES IN DIAGNOSIS.

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The following case is presented as one which possesses certain instructive points, and also for the reason that cases are exceedingly rare in which a diagnosis between gall bladder disease and appendicular abscess is practically impossible.

Mrs. R., aged thirty years, was admitted to the Presbyterian Hospital late at night, suffering extreme pain. She had been well until two days before, when she was seized with sudden intense abdominal pain while at work in her home. She was obliged to go to bed; vomiting was frequent and continued up to the time of admission to the hospital. The pain had been partially relieved by hypodermic injections of morphine by the attending physician.

Physical examination of the patient shortly after her admission to the surgical ward revealed the following: Temperature, 103.6° F., pulse 130, small and weak. Respiration somewhat accelerated, lungs negative, heart normal. Abdomen moderately distended, rather tympanitic, the muscles—especially those of the right side—on guard and showing some rigidity.

A mass was distinctly palpable in the right side a little below the level of the umbilicus, which was exquisitely tender.

The liver extended about an inch below the costal margin. In percussing downward over the liver *the dulness passed into tympany, and the note again became dull when the tumor was reached.*

The patient was not jaundiced, never had been, and had never had any previous attack of severe pain, although on several occasions there had been slight abdominal pain which was attributed to indigestion. She had passed through two normal confinements and had been menstruating regularly up to the time of this illness. The history, symptoms, and physical examination, therefore, all pointed with practically positive evidence to a sudden and virulent attack of perforative appendicitis—the tip of the appendix apparently being turned upward toward the umbilicus—with localized peritonitis and circumscribed abscess.

The patient's general condition was not good, the prognosis without operation was absolutely unfavorable, the indications for surgical relief were urgent, and immediate operation was decided upon.

A longitudinal incision was made over the prominence of the tumor through the outer margin of the right rectus muscle, the centre of the incision being somewhat below the level of the umbilicus.

On opening the abdomen the tumor was immediately exposed and found to be a much dilated gall bladder—tense almost to the point of rupture. A gallstone could be palpated blocking the cystic duct. The appendix and pelvic organs were normal.

The incision was enlarged upwards, the fundus of the gall bladder delivered and walled off with gauze, incised, and a large quantity of pus and bile evacuated. The gallstone—of about the size, shape and translucency of a white grape—was removed from the entrance of the cystic duct, the gall bladder sutured to the peritonæum and fascia, drained, and, with a wick of gauze extending well up to the under surface of the liver, the abdomen was closed.

The patient's condition was critical during the first twenty-four hours following operation—a persistent vomiting so acid as to excoriate lips and cheek, and tending to exhaustion. This was at once and permanently checked by a single washing of the stomach.

From this point on to a complete recovery, the patient's convalescence was uneventful, the abdominal drain being removed at the end of forty-eight hours and the drainage tube from the gall bladder in fourteen days. The patient was discharged from the hospital at the expiration of five weeks.

In writing of appendicitis, Osler states: "I have not met with an instance of either renal or hepatic calculus causing any difficulty in diagnosis, but a patient was admitted to my wards a few months ago with a history of very sudden onset of severe pain, three days previously, in the right side of the abdomen, and with an ill defined tumor mass low in the right flank. Fortunately she was transferred at once to the surgical side for operation, and the condition proved to be an acutely distended and inflamed gall bladder almost on the point of perforating."

The writer believes that this present case presented difficulties in diagnosis which were insurmountable, and that the report of it is therefore not altogether uninstructive.

LARGE FIBROID OF UTERUS COMPLICATING PREGNANCY; PORRO OPERATION.

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CASE.—On August 29, 1903, I was called by Dr. W. S. Garnsey, of Gloversville, to see an Italian woman about thirty years old. She was having labor pains and had had them for several hours. I found the cervix partly dilated, but situated so far back that it could be reached only with the greatest difficulty. There was a large fibroid filling up the pelvis and the uterus lay above and behind it. Owing to the inability of the patient and her friends to speak English, we were unable to get any history of the case and do not know whether they knew of the existence of the tumor. With the aid of an interpreter they were made to understand something of the gravity of the case and to consent to an operation. She was taken to the Nathan Littauer Hospital, and, after a bath and proper preparation of the abdomen, ether was administered and she was placed on the operating table. The bag of waters ruptured during these preparations and a large amount of amniotic fluid escaped.

After the ether was given, she was carefully examined by Dr. Beach, Dr. Goodfellow, and Dr. Pannaci, who agreed with us that it would be impossible for the child to be extracted through the vagina, and that the only hope of saving either mother or child lay in an abdominal operation.

An incision was made in the median line, extending from the pubes to about two inches above the umbilicus, which exposed the gravid uterus, with a fibroid tumor about six inches in diameter in its anterior wall. This tumor was partly broken down, its contents being of a cheesy, puttylike consistence, and to its upper and anterior surface there were adherent several coils of intestine. It took about half an hour to separate the adhesions, and then the tumor and uterus were rolled out on the abdomen.

The uterus could not be opened anteriorly on account of the tumor, so I decided to remove it first. A double row of clamps was quickly placed on each broad ligament, and the ligament cut between them down to the cervix; and then, while strong traction was made on the uterus, two large broad ligament clamps were placed across the cervix and it was cut across with scissors and handed over to an assistant. The uterus was then opened and the child delivered alive, the singular anomaly being presented of a child being born in one room while its mother was in another. The child was strong and healthy and three months after the operation was living.

As soon as the uterus was removed the edges of each broad ligament were overcast with catgut and the child extracted alive, the singular anomaly with strong carbolic acid, a small drain of iodoform gauze inserted, and, except for the point of entrance of the gauze, the peritonæum was sutured over the stump. The abdominal wound was closed with a single row of silkworm gut sutures.

For twenty-four hours the patient did well, but late in the second day she suddenly developed extremely rapid and shallow breathing and a rapid pulse, although her temperature was yet only 99.6 F. Examination with the stethoscope showed that she was not getting any air in the left lung, and there was a suppressed cough. She died at the end of fifty-two hours from the time of operation, apparently from postoperative pneumonia.

Such history as we were able to obtain showed that she had a cough and difficulty of breathing before the operation, yet to my mind there was little doubt that the cause of death was pulmonary embolism.

If there had not been such extensive adhesions between the tumor and the intestines the operation would have been an extremely short one. The method of operating by rapidly clamping all possible sources of hæmorrhage and then cutting away the uterus before opening it, so that while an assistant was extracting the child the operator was able to attend to the application of ligatures and sutures, must commend itself.

There was very little blood lost, except what was in the uterus, tumor, and placenta, and if I had not failed to include a large vein in one of my clamps there would have been no loss at all; as it was, I do not believe that there were over five or six ounces.

It was, of course, a great disappointment to me that the mother did not recover, but I did have the satisfaction of preserving one life that would surely have perished if no operation had been performed, and the complication that killed the woman could have been neither foreseen nor prevented.

Therapeutical Notes.

Chronic Rheumatism.—The following prescriptions have proven useful in this intractable condition, the first being much used in St. Luke's Hospital, New York:

℞ Potassium iodide	3 drachms;
Wine of colchicum Paregoric	of each 2 ounces;
Tincture of stramonium	6 drachms;
Tincture of cimicifuga	3 ounces.

M. Teaspoonful three times daily.

Bellevue Hospital uses in the same disease:

℞ Tartrate of potassium and sodium	½ ounce;
Potassium nitrate	5 drachms;
Wine of colchicum	2 drachms;
Water, enough to make	2 ounces.

M. Teaspoonful three times daily.

Prevention of Iodism.—*Revue française de médecine et de chirurgie*, for December 21, 1903, states that the sodium carbonate in the following mixture increases toleration of the iodide:

℞ Potassium iodide	1 gramme (15 grains);
Sodium carbonate	½ gramme (7½ grains);
Syrup of orange peel	25 grammes ($^{5}/_{6}$ ounce).

M. Three teaspoonfuls daily.

Pruritus.—*Presse médicale*, for August 3, 1904, recommends:

℞ Hoffman's anodyne	10 grammes ($^{1}/_{3}$ ounce);
Eau de cologne	100 grammes ($3^{1}/_{3}$ ounces);
Menthol	40 centigrammes (6 grains).

M. Tablespoonful in a quarter glassful of water for a lotion.

Methylene Blue as a Local Application in Secondary Mucous Syphilides.—Arnal has observed in Brocq's clinics, says *Semaine médicale*, for July 27, 1904, that methylene blue acts as a simple antiseptic in secondary mucous syphilides and, on account of its lack of caustic action, may be used by the patient personally. Its application is not only painless, but seems sometimes to be positively analgetic. When used on the buccal mucosa, its taste is bitter, but not so disagreeable as to constitute a contraindication. Even when used liberally, no toxic action is manifest.

An aqueous solution of 1 part in 10 is generally indicated; but in ulcerative lesions, or in phagedenic, infected, œdematous syphilides around the genitals, the blue is best employed as a powder. The parts to be treated should first be thoroughly cleaned.

The epithelium of the mucosa on which the blue is applied becomes deeply colored; the healthy tissue quickly loses the stain, but the affected parts remain deeply imbued till a cure is effected.

Arnal observed 26 cases in which methylene blue was used along with constitutional treatment and noted that a cure was obtained in from one to two weeks.

For Pruritus Pudendi.—E. T. Blake (*Eczema and Its Congeners*, 1902) says: "Think of glycosuria, polypus, pediculus pubis, cervical catarrh, and endometritis papillosa. Give douches of liquor sodæ chlorinatæ, one drachm to one pint [the author probably means an English pint, of twenty ounces, not sixteen] of hot water, growing cooler daily. Pine wool, well dried, kept between the labia. One of the dusting powders, applied after hot sponging, will sometimes give great relief to itching."

◆

Complimentary Dinner to Dr. John B. Chapin.—During the present year Dr. John B. Chapin, superintendent and physician of the Pennsylvania Hospital for the Insane, Philadelphia, will have completed a half century's work in behalf of the insane. He was appointed assistant physician at the State Lunatic Asylum, Utica, N. Y., in 1854. Afterward he became connected with the late Dr. George Cook in the conduct of Brigham Hall, Canandaigua, N. Y., and then, first as one of the building commissioners, and subsequently as physician and superintendent, with the Willard Asylum for the Chronic Insane, an institution made famous under his organization and work. Since 1884 he has been the medical chief of the Pennsylvania Hospital for the Insane, succeeding the late Dr. Kirkbride. His friends deem the completion of this long period of work, rounding out a half century in one department of medicine, a proper occasion on which to express to Dr. Chapin their personal affection and their appreciation of the extent and value of his work. It is proposed to give Dr. Chapin a dinner some time in October next, and to have his portrait painted for presentation to him and his family in honor of the event. To accomplish this purpose a committee has been formed to solicit subscriptions and to make all other arrangements. The committee is sure that all will consider it a privilege and honor to contribute to this purpose. As the time is brief to accomplish all that is desired an early response will be appreciated.

Committee: Henry E. Allison, Matteawan State Hospital, Fishkill-on-Hudson, N. Y.; J. W. Babcock, State Hospital, Columbia, S. C.; Benjamin Blackford, Western State Hospital, Staunton, Va.; G. Alder Blumer, Butler Hospital, Providence, R. I.; Edward N. Brush, Sheppard and Enoch Pratt Hospital, Towson, Maryland; Dwight R. Burrell, Brigham Hall, Canandaigua, N. Y.; Edward Cowles, 419 Boylston Street, Boston, Mass.; Richard Dewey, Milwaukee Sanitarium, Wauwautosa, Wis.; W. A. Gordon, Northern Hospital, Winnebago, Wis.; Henry M. Hurd, Johns Hopkins Hospital, Baltimore, Md.; A. E. Macdonald, Manhattan State Hospital, New York; S. Weir Mitchell, 1524 Walnut Street, Philadelphia, Pa.; A. R. Moulton, Pennsylvania Hospital for the Insane, West Philadelphia, Pa.; William Osler, 1 West Franklin Street, Baltimore, Md.; Charles W. Pilgrim, Hudson River State Hospital, Poughkeepsie N. Y.; Theophilus O. Powell, Georgia State Sanitarium, Milledgeville, Ga. Subscriptions may be sent by check or money order payable to Edward N. Brush, Sheppard and Enoch Pratt Hospital, Station A, Baltimore, Md.

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SIMULATED INTESTINAL PERFORATION.

It is not very uncommon for grave conditions to be simulated, though as a rule the simulation is not so close as absolutely to defy detection. In recent French experience, however, there have occurred three cases of "false perforation" of the intestine in typhoid fever cases in which the classical symptoms and signs of perforation were pronounced, and yet nothing but intestinal hyperæmia was discovered on laparotomy. These cases are made the subject of comment by M. R. Romme in the *Presse médicale* for August 13th, especially one reported by M. Rochard in the *Gazette des hôpitaux*.

M. Rochard was called in haste one morning to a man in M. Debove's service who, being convalescent from typhoid fever, had been taken about three hours before with symptoms of the greatest gravity. His face had a pinched expression, his forehead was covered with cold sweat, he complained of atrocious pain in the abdomen, and he was vomiting incessantly. The temperature was below normal; the pulse was over 100, small and quick; the abdomen was but little distended, but its muscles were contracted and the pain, which was chiefly on the right side, was manifestly increased by pressure in the region of the cæcum. The diagnosis of perforation was made, and the abdomen was opened at once, but, although the cæcum, the vermiform appendix, the duodenum, the stomach, and the gall bladder were examined carefully, they were all found to be perfectly normal; the only abnormity discovered was exaggerated vascularization of the transverse colon. The abdomen was simply closed, and the patient made a good recovery. M. Rochard cites the two other cases, one observed by Delorme and the other by Alglave and Boisseau. In both of them there was the same clinical picture of perforative peritonitis. In Delorme's case only slight redness of the small intestine was found on laparotomy, and in the other case congestion with false membranes at the situation of the ileum. These two patients also recovered.

M. Rochard does not hesitate to look upon these three cases as examples of incipient peritonitis, and he imputes the gravity of the symptoms observed to the exaggerated sensibility of the peritonæum in the patients. But these questions arise: What caused the peritonitis, if such it was, and how was a simple abdominal incision curative? We know that mere abdominal section without any further procedure has often been followed by recovery in cases of tuberculous disease of the peritonæum. Are we to expect that the same operation will prove equally applicable in cases of non-perforative peritonitis occurring in patients recovering from typhoid fever?

THE PREHENSILE TONGUE.

That "unruly member" which tradition makes the scapegoat for indiscretions of speech is occasionally, so far as concerns other than vocal capabilities, so subject to its owner's will as to execute movements well calculated to cause surprise and wonder, but rarely, we venture to say, to such an extent as is described by Rodier and Capdepont in the August number of the *Revue de stomatologie,* who speak of the tongue in a case that had come under their observation as *la langue préhensive* and *la langue prenante.*

The subject was a man, forty-one years old, who applied at the dental department of the Lariboisière for some ordinary tooth trouble. His tongue was of extraordinary length, and was also of exaggerated transverse dimensions. The man could double it upon itself for a good third of its length, and so forcible was this flexion that by means of it he could seize a penholder or any similar object and hold it firmly. He could even deal in the same way with so small a thing as a thread. His tongue had always been long and bulky, so that it interfered somewhat with the clearness of his articulation. Except that he was extraordinarily tall and stout, there was nothing remarkable about his appearance.

The authors think it certain that this uncommonly extensive and powerful flexion of the tongue was accomplished by the action of the styloglossi muscles, but that the phenomenon could not take place until it was assisted at the start by pressure exerted upon the tip of the organ from below upward. In this particular instance either the upper teeth or the finger sufficed to produce such pressure. In case the teeth acted, the tongue had first to be protruded and pressed against the superior dental arch by the genioglossi before the styloglossi could come into play. We are not told whether or not the man had trained his tongue to its performance. In any event, however, its prehensile power must be looked upon as a physiological curiosity.

THE INTERNAL AND EXTERNAL TREATMENT OF WARTS.

It adds lustre to our art, and incidentally redounds to the happiness of mankind, that the clinician of eminence should occasionally bring his mind down to the contemplation of those minor afflictions that not only give rise to physical inconvenience, to say the least of them, but also bring upon their unhappy victims more or less of unwelcome pleasantry, not to say ridicule. Recollections of our childhod will not permit many of us to set down warts as beneath the notice of the therapeutist. At all events, Dr. Mantelin, formerly an assistant at the Lariboisière Maternity, does not so consider them. In the *Journal des praticiens* for August 6th he gives an almost pathetic account of the plight of one little Madeleine J., a child, eleven years old, who for three years had suffered with large and multitudinous warts at the corners of her mouth and on her hands.

On one of the largest of the little girl's warts—as big as a pea and occupying the middle of the back of the second joint of the left little finger—Dr. Mantelin tried the Paquelin cautery. He had it in mind to treat the others with the same instrument, but he reflected that such treatment would be tedious and too painful to be borne with equanimity by a child of little Madeleine's tender age, and he humanely resolved to resort to Fonssagrives's plan of administering internally about ten grains of magnesia daily. It seems that the genial and chatty Fonssagrives was convinced that this internal use of magnesia was amply sufficient for the cure of all cases of warts. But Mantelin naturally hesitated to trust to it altogether in little Madeleine's case, so he used it in conjunction with the employment of a local application prepared according to the following formula:

℞ Chloral }
Acetic acid } each .... 1 part;
Salicylic acid }
Ether } each .... 4 parts;
Collodion .... 15 parts.
M.

This was applied daily for a month, and at the end of that time all the warts had disappeared. It needed the subsequent treatment—or at least the topical part of it—to cause the complete disappearance even of the big wart that had been subjected at first to the application of the actual cautery. But M. Mantelin is in doubt as to what effected the cure—the Fonssagrives medication, which he admits was empirical, the local application, or both combined. The topical mixture certainly seems promising, and the magnesia would probably do no harm, but one's analytical propensity calls for the resolution of Dr. Mantelin's doubts, and he promises to experiment in the necessary direction.

THE THERAPEUTICS OF GEMS.

The feeling of veneration and wonder connected with rare and beautiful stones which has always been one of the characteristic phenomena of the human mind is probably coeval with the earliest agricultural operations of our common ancestor. After his expulsion from the view of the ineffable beauties of Eden, the two sets of objects presented to his senses which almost surely excited his awe and curiosity to the greatest degree were the sparkling members of the "Heavenly Host" above and the sparkling gems which he occasionally dug from the bowels of the earth beneath. Such feelings were the primordial germs of the qualities of the human mind, which resulted in the development, in one direction, of the adoration of the colossal monolith and the Lilliputian graven image, and, in another, of the glittering display of gems and jewels by which the millionaire ball room belle of the twentieth century causes the adolescent males of her vicinity to grow ruddy with the glow of admiration and love, and compels the surrounding members of her own sex to develop the green and yellow tints of jealousy and envy. And, as wonder attracts wonder, and mystery hooks on to mystery, the inexplicable machinery of the human frame and its still more enigmatical disorders came to be linked in faith and practice with the miraculous properties of rare and beautiful stones.

No reader who has carefully observed the phenomena of hypnotism need express any surprise that fond mothers believed that they protected their children from the blighting effects of fascination, witchcraft, or the "evil eye" by hanging a piece of coral from the neck of each; that fame attributed to chalcedony the virtue of making the bearer "lucky in law," quickening the power of the body —while "of force also against the illusions of the divell, and phantasticall cogitations arising of melancholy;" that carnelian "mitigateth the heat of the minde, and qualifieth malice, it stancheth bloudy fluxes, specially of women that are troubled with their flowers;" that the mephis received from even the famous Albertus Magnus the testimony that it, "being broken into powder, and drunk with water, maketh insensibility of torture;" and even that the topaz "increaseth riches, healeth the lunatique passion, and stancheth bloud." The ætites was "good for the falling sicknesse and to prevent untimely birth;" not only the amethyst "maketh a drunken man sober, and refresheth the wit," but also "the bearers shall be able to drink freely, and recover themselves soon, being drunk as Apes: the same maketh a man wise;" the agate "hath virtue against the biting of scorpions or serpents"—some going so far as to say "that it maketh a man eloquent, and procureth the favor of Princes; yea, that the fume thereof doth turn away tempests;" the heliotrope "stancheth bloud, driveth away poysons, preserveth health; yea, and some write, that it provoketh rain, and darkneth the sun, suffering not him that beareth it to be abused"—a goodly catalogue of mineral properties surely, but excelled in turn by that of the hyacinth, which "doth all that the other doth, and also preserveth from lightning." The sapphire possessed a goodly therapeutic and moral record. It was said that it "preserveth the members, and maketh them lively, and helpeth agues and gowts and suffereth not the bearer to be afraid: It hath virtue against venome, and stayeth bleeding at the nose being often put thereto;" while the wearing of a chrysoprase will "make one out of love with gold;" and "oinothera hanged about the neck, collar, or yoke of any creature, tameth it presently." Then some of the most precious were possessed of still higher moral and spiritual qualities; the ruby not only "resists poyson, and preserves from the plague," but, if the wearer "be in any danger, it changes its color and becomes dim, but being past, it recovers it again;" the emerald is not only "the greatest specific yet known in curing the bloody flux, and all other fluxes whatsoever," but it is "good for the eyesight," it also "maketh one rich and eloquent," and "will break if worn in copulation;" while the diamond was not only able "to take away fears, melancholy, and to strengthen the heart," but was an efficient guardian of feminine purity, inasmuch as we have the highest testimony to the fact that it, "laid under the pillow, will betray the incontinency of a wife."

With so many infallible remedies, the only wonder is that disease and death were allowed to even put in an occasional appearance—at least among the wealthy. Yet, even the skeptical Reginald Scot is found to express the opinion (A. D. 1584) that "it is to be concluded, that stones have in them certain proper vertues, which are given them of a special influence of the planets, and a due proportion of the elements, their substance being a very fine and pure compound, consisting of well tempered matter, wherein is no grosse mixture: as appeareth by plain proof of India and Æthiopia, where the sun being orient and meridionall, doth more effectually show his operation, procuring more precious stones there to be ingendered, than in the countries that are occident and septentrionall." And, accordingly, in those palmy days of the mystical and supernatural—when every individual and every event were under special celestial and planetary influence—the properties of all gems were continuously so regulated, and could be specially focussed by skilled management. Hence we are told that the latter "have not only the very operation of the planets, but sometimes the very images and impressions of the starres naturally ingrafted in them, and otherwise ought alwaies to have graven upon them, the similitudes of such monsters, beasts, and other devices, as they imagine to be both internally in operation, and externally in view, expressed in the planets; as for example, upon the Achate are graven serpents or venemous beasts; and sometimes a man riding on a serpent: which they know to be *Æsculapius,* which is the celestiall serpent, whereby are cured (they say) poisons and stingings of serpents and scorpions. These grow in the river of *Achates,* where the greatest scorpions are ingendred, and their noisomnesse is thereby qualified, and by the force of the scorpions, the stone's vertue is quickened and increased. Also, if they would induce love for the accomplishment of venery, they inscribe and expresse in the stones, amiable embracings and lovely countenances and gestures, words, and kissings in apt figures. For the desires of the mind are consonant with the nature of the stones, which must also be set in rings, and upon foiles of such metals as have affinity with those stones, through the operation of the planets whereunto they are addicted, whereby they may gather the greater force of their worship." Having regard to the fact that the ideas and modes of thinking represented in the foregoing quotations were carried from the old country by our earliest Anglo-Saxon ancestors, and were sown broadcast all over the then virgin soil of New England, and remembering the extreme conservatism of provincial thought in bygone years, and how little, even in the present day, such questions are carefully examined or even thought about in the everyday life of the average citizen, there is, perhaps, no just cause for surprise that we still from time to time hear of the use of "mad stones" and "amulets" and "charms" and even traces of "witchcraft" healing—in an enlightened country and in the opening years of the twentieth century.

John Knott.

THE SPITTERS OF THE ELEVATED RAILWAY.

Verily the two-legged hog is hard to repress. The notices that for many months threatened him who should spit on the floor of an elevated railway car with a fine have recently been toned down so that they now only remind him that such spitting is "illegal." Nevertheless, they seem to have accomplished something so far as the car floor is concerned, but the offender now spits into the street, either from the platform, where the guards seem to have set him an example, or from an open window, in which latter case he often has the added sport of watching the breeze make spray of his saliva and drive it through some other window upon a fellow passenger.

GERMAN ORTHOGRAPHY.

The German language as written at present is in about the state of confusion in the matter of spelling that has long characterized our own tongue. We are glad to learn, therefore, that an attempt to secure uniformity so far as medical language is concerned will be made at the next general meeting of the editors of German medical journals.

PTOSIS OF THE ABDOMINAL VISCERA.

The treatment of gastroptosis, enteroptosis, etc., by adhesive strapping, as originally described in our columns by Dr. Achilles Rose, of New York, seems to be coming into extensive use in Germany. Among others, Dr. R. Weissmann, of Lindenfels (*Aerztliche Rundschau,* July 16th), has become impressed with its efficacy. He reports having observed surprisingly good results from its employment.

A NEW JERSEY JOURNAL.

We have received the first number, for September, 1904, of the *Journal of the Medical Society of New Jersey,* a monthly of thirty-two pages of reading matter. It will undoubtedly heighten the interest in the society felt by its members. It is intended also that the new journal shall publish the society's proceedings, and the initial number contains the address delivered by the president at the last meeting.

PARTURITION IN ABSENTIA.

We think that cases similar to the one reported by Dr. William C. Wood in this issue, in which a child was born while its mother was in another room, several yards distant, are very rare in medical annals. It is a remarkable advance in science that no longer requires the presence of the mother during childbirth.

News Items.

Society Meetings for the Coming Week:

Monday, *September 12th.*—New York Academy of Medicine (Section in General Surgery); New York Academy of Medicine (Section in Chemistry and Technology); New York Medicohistorical Society (private); New York Ophthalmological Society (private); Gynæcological Society of Boston; Burlington, Vt., Medical and Surgical Club; Norwalk, Conn., Medical Society (private); Medical Association of the Greater City of New York; Society of Medical Jurisprudence; German Medical Society of the City of New York.

Tuesday, *September 13th.*—New York Academy of Medicine (Section in Genitourinary Surgery); New York Medical Union (private); Buffalo Academy of Medicine (Section in Medicine); Rome, N. Y., Medical Society; Medical Society of the County of Rensselaer, N. Y.; Newark, N. J., Medical Association (private); Trenton, N. J., Medical Association; Clinical Society of the Elizabeth, N. J., General Hospital and Dispensary; Northwestern Medical Society of Philadelphia; Practitioners' Club, Richmond, Ky.; Richmond, Va., Academy of Medicine and Surgery.

Wednesday, *September 14th.*—New York Pathological Society; American Microscopical Society of the City of New York; Society of the Alumni of the City (Charity) Hospital; Philadelphia County Medical Society; Lenox Medical and Surgical Society (private); Medical Society of the Borough of the Bronx, New York.

Thursday, *September 15th.*—New York Academy of Medicine; Brooklyn Surgical Society; New Bedford, Mass., Society for Medical Improvement (private); Medical Society of the City Hospital Alumni, St. Louis; Atlanta Society of Medicine.

Friday, *September 16th.*—New York Academy of Medicine (Section in Orthopædic Surgery); Clinical Society of the New York Postgraduate Medical School and Hospital; Manhattan Medical and Surgical Society (private); New York East Side Physicians' Association; Baltimore Clinical Society; Chicago Gynæcological Society.

NEW YORK.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending September 3, 1904:

	Week end'g Aug. 27.		Week end'g Sept. 3.	
	CASES.	DEATHS.	CASES.	DEATHS.
Measles	70	4	57	3
Diphtheria and croup	244	25	200	28
Scarlet fever	48	2	70	5
Smallpox	..	..	..	..
Chickenpox	3	..	..	..
Tuberculosis	371	147	334	162
Typhoid fever	140	27	118	13
Cerebrospinal meningitis	..	17	..	10
Totals	876	222	779	221

Change of Address.—Dr. Marcus J. Levitt, to The Oxford, 25 East One Hundred and Twenty-fourth Street.

Bequest to New Amsterdam Eye and Ear Hospital.—Dr. William H. Crawford, who died on August 28th, at No. 205 West Fifty-seventh Street, left $10,000 to the New Amsterdam Eye and Ear Hospital.

Erratum.—In last week's issue of the *Journal*, on page 464, we inadvertently stated the dose of digalene to be five grains and the maximum daily dose eighteen grains. The correct doses are one two-hundredth and one fiftieth of a grain, respectively.

Beth Israel Hospital.—Plans have been made for the enlargement of the new Beth Israel Hospital, at Jefferson and Cherry Streets, by the addition of a six story tenement house at the southwest corner of Jefferson and Monroe Streets, which is to be entirely remodelled and connected by bridges with the hospital building. It will be utilized as living quarters and dormitories for the hospital nurses and will permit the increases of the quarters for patients in the hospital proper. The cost of the improvements is estimated at $3,500.

The Babies' Hospital in Need.—The Babies' Hospital at Fifty-fifth Street and Lexington Avenue is in need of funds for continuing the work which it established in this city fifteen years ago, of caring for sick babies under three years of age. In the new fireproof hospital fifty beds are available for the free treatment of patients. A dispensary is also maintained to afford relief to the poor. Twice a week the convalescents are removed by boat from New York to Oceanic, N. J. Ten dollars will defray the necessary expenses for a sick infant; twenty-five dollars will furnish a crib. Contributions may be sent to Mrs. John B. Calvert, treasurer, No. 15 East Fifty-seventh Street.

Completion of New Building of St. Mary's Hospital, Jamaica.—The women's ward of the new building erected by St. Mary's Hospital was open for inspection on September 2nd for two hours. Friends of the hospital were invited by the executive committee of the Woman's Auxiliary to be present. The opening of the woman's ward to patients immediately succeeded the inspection of the ward. The hospital authorities are greatly pleased that the new building is ready to receive patients in even one of its wards. Ever since St. Mary's Hospital was started the management has labored under the handicap of inadequate room and facilities. The completion of the fine building at Shelton Avenue and Ray Street marks the beginning of a greater usefulness for the institution. There is ample room in the new building, which is large, roomy, and well ventilated.

A New Hospital for Brooklyn.—The establishment of a new hospital in Brooklyn was formally decided upon on August 31st at a meeting of the Board of Managers of the Fifteenth Street Hospital Association. At this meeting the association, a temporary organization, formed about a year ago, voted upon a new constitution, effected a permanent organization and adopted as its name the Brooklyn Samaritan Hospital Association. The object of the permanent organization as expressed at the meeting, was to institute and maintain a charitable hospital in the neighborhood of Fifteenth Street and Fourth Avenue. This section, it was explained, is not only a densely populated one, but it is nearly a mile from the nearest hospital and two miles from the next nearest. Prominent and influential residents of the section are interested in the enterprise and are devoting much time and energy to its proper and speedy culmination. The proposed hospital is the outgrowth of the dispensary work carried on every weekday afternoon for the past four years, at Fifteenth Street and Fourth Avenue, under the auspices of the Fifteenth Street Baptist Church. It will be a non-sectarian institution.

The Late Dr. Henry Tuck.—The New York Life Insurance Company has adopted the following minute: Dr. Henry Tuck, vice-president of the company and the oldest trustee in point of service, died at Seabright, N. J., on September 2, 1904, after a long illness, in which he was a great sufferer. Dr. Tuck spent nearly his whole professional life in the service of life insurance, and his judgment in all matters to which he gave special attention was implicitly relied upon and seldom at fault. Born in Barnstable, Mass., in 1842, he received a classical education at the Boston Latin School and at Harvard University, graduating in the class of 1863. After studying medicine for two years, he was appointed Acting Assistant Surgeon in the army, and as such saw service during the closing months of the Civil War. He completed the regular course of medical studies in the College of Physicians and Surgeons of this city, and after spending a year in a general hospital in Vienna, Austria, he began practice in Boston in 1867. After ten years' general practice, during which time he became a member of the principal medical societies of Boston, one of the physicians of the Massachusetts General Hospital, and served as medical examiner and medical referee for three life insurance companies, he was elected medical director of the New York Life Insurance Company. He became a trustee of the company in 1878, senior medical director in 1883, second vice-president in the same year, and senior vice-president on the election of Mr. Beers to the presidency in 1885. For twenty-seven years Dr. Tuck has been a directing force at the home office, and both in the board of trustees and as an executive officer, he has given to the company the best service of a trained mind, a large experience and a whole-hearted devotion to its highest interests. Personally Dr. Tuck endeared himself to his associates by his frankness of manner, sincerity of speech, and his friendliness to every one who served the company. Looking back upon such a life, upon its labors and its successes, we bid our friend and associate farewell with the feeling that he fully merits the enconium "Well done, good and faithful servant."

The Rockefeller Institute for Medical Research.—The site of this institute is to occupy a section of the old Schermerhorn farm, bounded by the East River, Avenue A, Sixty-fourth and Sixty-fifth Streets. The original Schermerhorn farm as purchased and cultivated by Peter Schermerhorn in 1814 extended from Sixty-fourth to Seventy-fifth Street, and westward and northward into the heart of Harlem. One of the Rockefeller buildings will occupy the identical site where once stood the old mansion of Governor De Witt Clinton, a one-time neighbor of the Schermerhorns. This will be the central laboratory, which will have a 361-foot frontage on Sixty-seventh Street and a depth of 230 feet, extending south. It will be five stories in height, with a façade of Vermont or Massachusetts limestone and terra cotta brick, decorated with pilasters of stone, and having a porch entrance supported by ornamental columns. Imbedded in the portico ceiling will be an arrangement of electric lights of various colors.

As the main purpose of the institution will be to experiment on animals, and as it is intended to have large numbers of animals, ranging from the domestic cat and dog to the monkey, reptile, and their kindred of the wild, special provision has been made to maintain a temperature in each case to accord with the climate to which the various species are accustomed. As the reptile tribe requires warmer weather than domesticated animals, a temperature of 65 degrees will be maintained for them the year round. The same rule will be observed with rabbits, tigers, and other herbivorous and carnivorous beasts.

On the first floor of the laboratory building will be located a large library, it being the intention to make it the most complete of its kind in the world. Flanking the library will be a study for Superintendent Simon Flexner, and a seminary room as well as a commodious assembly hall in the rear.

Weekly illustrated lectures will be a feature of the institution.

What is called the combustion room, together with the machine room, a large operating hall, and quarters for the assistant directors, will occupy most of the second floor, while the third floor will be devoted to a special study and laboratory for the directors, with minor laboratories and sterilizing rooms for special operations and experiments.

Research rooms, special laboratories, an incubator, which will be the largest and most improved in existence, and two general laboratories will be on the fourth floor.

On the fifth and top floor of the main building will be the photomicrography galleries and storages for negatives. The remainder of the upper floor will be devoted to the attendants and their families.

To the profesisonal mind special interest centres in the animal house, or hospital. This building will adjôin the main laboratory, with which it will be connected by a fire proof corridor.

The animal house will be heated to varying temperatures, in accordance with its specific animal patients as they come and go—are cured or killed. In the centre of the building will be a large pool, or tank, of graded depth, where the large animals will be bathed. Provision is made for douche, Turkish, and other baths, one of the early experiments being the water cure for all sorts of skin or eruptive affections.

In one corner of the two story building will be an inoculation room, with a drying cage and laboratory adjoining. Preparatory apartments and a sterilizing hall will lead into the main operating room, leaving the entire rear portion of the building to be occupied by the cages. From the granolithic floors to the stone and steel walls of these cages nothing will be overlooked in making them cleanly and supremely comfortable for their intended habitants. The animal hospital will be 80 feet in depth and 40 feet wide. It will have a roof garden with cages for such animals as may be in condition or accustomed to live in the open air.

Adjoining the animal hospital will be the power house, a one story terra cotta building of 38 feet frontage and 60 foot depth, which will supply steam and electricity for the entire institution.

Dr. Edward Wallace Lee has said that the possibilities of the institution are unlimited.

"Up to the present time," he states, "experiments on animals have been confined largely to individual physicians, and as some, if not many, of them are quacks using their animal demonstrations for advertising purposes, physicians of standing have been slow to accept and indorse such diagnoses. But, in this case, with the foremost medical and surgical authorities of the world identified with the research work, it will be entirely different. There is every promise of this institution being a more enduring monument for its founder than a hundred ordinary colleges would be. Its possibilities are as infinite as the stars."

Dr. Lee is one of the best known authorities in the country on the pathology of wild animals.

PHILADELPHIA.

Changes of Address.—Dr. B. Franklin Stahl, to 1727 Pine Street; Dr. J. L. Manasses, to 3110 Diamond Street; Dr. Augustus A. Eshner, to 1019 Spruce Street.

Bequest to the Episcopal Hospital.—By the will of J. Lowber Welsh, who died in this city recently, the hospital of the Protestant Episcopal Church in Philadelphia will receive a bequest of $50,000, free from all State and national tax.

Meetings of Philadelphia Medical Societies for the Week Ending September 17th.—Tuesday: Kensington Branch, Philadelphia County Medical Society; Wednesday: Philadelphia County Medical Society; Saturday: West Philadelphia Branch, Philadelphia County Medical Society.

Deaths.—Dr. Millard Fillmore Cyphers died at his home, 3330 Woodland Avenue, on August 29th. Dr. Cyphers was born in Wilkes-Barre. He graduated from the medical department of the University of Pennsylvania in 1887.

John P. Bowman, D. D. S., died suddenly at his home, 1618 Susquehanna Avenue, on August 29th.

Two New Cases of Smallpox.—A case of smallpox was reported last week. This is the second case recorded by the board of health from the same neighborhood in three weeks. The patient, who lived at 2418 Marston Street, was removed to the Municipal Hospital. The department has again instituted a house to house visitation in the vicinity for the purpose of vaccinating all those who have not been successfully vaccinated during the last five years.

Opening of the Medical Schools.—The regular session of the medical department of the University of Pennsylvania begins on Friday, September 30, 1904, at noon. The new laboratory building will be the home of this department during the coming year, virtually all the medical instruction being given in that building and the hospital of the university. Anatomy, Chemistry, and Surgery will still be taught in the old building of the department.

The twenty-second annual session of the Philadelphia Polyclinic and College for graduates in medicine begins October 3rd. The course in pathology and the clinical laboratory course, formerly given by Dr. B. M. Randolph, Jr., will be divided between Dr. Guthrie McConnell and Dr. John M. Swan. Dr. McConnell will give the former and Dr. Swan the latter course.

The announcement for the session of 1904-1905 of the Medicochirurgical College of Philadelphia has just appeared. The winter term begins September 28th, with an address by Dr. Judson Daland, professor of Clinical Medicine.

The eightieth annual announcement of the Jefferson Medical College of Philadelphia has been issued. The regular session begins on September 26th at 8 o'clock p. m.

GENERAL

Statement of Mortality in Chicago, Ill., for the Week Ending September 3, 1904, compared with the preceding week and with the corresponding week of 1903. Death rates computed on United States Census Bureau's estimated midyear populations of 1,932,315 for 1904 and of 1,873,880 for 1903:

	Sept. 3, 1904.	Aug. 27, 1904.	Sept. 5, 1903.
Total deaths, all causes..........	491	472	464
Annual death rate per 1,000......	13.27	12.76	12.91
By sexes—			
Males	292	264	260
Females	199	208	204
By ages—			
Under 1 year....................	119	115	115
Between 1 and 5 years...........	45	48	50
Over 60 years..................	75	79	54
Important causes of death—			
Acute intestinal diseases.........	86	102	83
Apoplexy	14	12	9
Bright's disease..................	28	26	25
Bronchitis	7	6	9
Consumption	61	52	54
Cancer	21	22	21
Convulsions	12	5	4
Diphtheria	6	6	14
Heart diseases....................	32	39	32
Measles	..	..	1
Nervous diseases..................	17	19	26
Pneumonia	22	32	29
Scarlet fever.....................	3	2	..
Suicide	17	9	11
Typhoid fever.....................	9	8	22
Violence (other than suicide).....	52	37	25
Whooping cough....................	3	2	..
All other causes..................	100	93	98

Typhoid Fever.—Two hundred and thirty-three cases of typhoid fever are reported from the District of Columbia.

New Appointment for Chicago Assistant City Chemist.—Dr. S. F. Acre, of 5224 Kimbark Avenue, Chicago, will resign his position as assistant city chemist to take a position at Johns Hopkins University, where he will serve as assistant to Professor Remsen.

Bequest to Johns Hopkins for the Nurses.—By the will of Mrs. Anna M. Gill, of Paradise, Baltimore county, which was probated in the Orphans' Court on August 29th, the sum of $4,000 is willed to the trustees of the Johns Hopkins Hospital, to be used for the benefit of the nurses of that institution.

Western Asylum of Kentucky.—Governor Beckham announced on August 24th the appointment of Dr. J. M. Ferguson, of Muhlenberg county, as second assistant physician at Western Asylum at Hopkinsville. He succeeds Dr. J. W.

Stephens, who was transferred to the Lakeland Asylum.

Louisiana Personals.—Dr. W. G. Owen has been appointed Surgeon-General of Louisiana, with the rank of Brigadier-General.

Dr. W. D. Haas has been appointed Major on the staff of the governor.

Dr. Arthur Nolte, surgeon of the first troop of Louisiana cavalry, is organizing a hospital corps of forty men, who will be trained and thoroughly perfected in their duties, by the next encampment of the State militia.

American Academy of Ophthalmology and Otolaryngology.—Dr. Hanau W. Loeb, of St. Louis, living at 4403 Delmar Boulevard, was elected president of the American Academy of Ophthalmology and Otolaryngology in Denver on August 26th. By virtue of his office President Loeb will be chairman of the general council of the academy. The place for the next meeting will be selected by the general council. The cities of Buffalo and Detroit are the active candidates.

For the Physical Examination of Toronto University Athletes.—In his annual report, President Loudon, of Toronto University, says: "In my report for the year 1901-2 I directed attention to the desirability of providing medical supervision for students engaging in athletic exercises, and pointed out the serious consequences which are liable to arise through the lack of such supervision. Nothing has been done in this direction, and I would again urge the desirability of appointing a medical director for this purpose."

Smallpox.—A virulent outbreak of smallpox is reported from North Adams, Mass., thirty-two cases having thus far been reported to the board of health, which has closed two streets entirely and ordered a suspension of all public gatherings. The schools are not to begin until two weeks later than usual. The two theatres have agreed to keep closed for several weeks and at the churches the ministers have stated that there will be no services, so long as the present conditions exist. Business is practically paralyzed.

Dearborn Medical College, Chicago.—On August 29th, the Dearborn Medical College opened its new home, at Michigan Avenue and Twelfth Street, in the building formerly occupied by the Chicago Manual Training School. The assembly hall was decorated with flags, ferns and flowers, and was filled with students and friends. Dr. L. Blake Baldwin, president, introduced the speakers, Dr. George F. Butler, superintendent of the Alma Springs, Mich., Sanitarium, and Dr. Homer Thomas, of Chicago. The faculty has expended $10 000 in remodeling and furnishing the building, and the school began on August 30th with an enrollment of 200 pupils. This is the second year of this night medical college, which began last season in the Illinois Pharmacy Building with 135 students.

The Annual Meeting of the Medical Society of the State of Pennsylvania.—The annual meeting of the Medical Society of the State of Pennsylvania will be held in Pittsburgh, September 27th, 28th, and 29th. The railroads in the Trunk Line Association will sell round trip tickets at one fare and one third, good to return until October 1st. The society has pledged itself to redeem at full value any ticket purchased for this meeting and afterward found in the hands of scalpers. The scientific meetings will be held in the Music Hall of the Carnegie Institute. A full programme has been prepared. The following addresses will be delivered: The President's Address, by Dr. William B. Ulrich, of Chester; The Address in Medicine, by Dr. Henry Beates, Jr., of Philadelphia; The Address in Surgery, by Dr. Winters D. Hamaker, of Meadville; The Address in Obstetrics, by Dr. X. O. Werder, of Pittsburgh; The Address in Hygiene and State Medicine, by Dr. Alexander C. Abbott, of Philadelphia; The Address in Neurology, by Dr. William K. Walker, of Dixmont; and The Address in Laryngology, by Dr. Daniel W. Mears, of Scranton.

Touro Infirmary Raising Funds Rapidly.—The Touro Infirmary, New Orleans, has at last succeeded in raising $100,000 by popular subscription, after several months of hard work. Those interested found the work necessarily slow for the reason that only small individual subscriptions were received. It will be recalled that the Touro Infirmary Association promised to contribute $125,000 to the erection of a new building for the infirmary, provided the public donated $100,000. It is very gratifying to those who have labored in this noble cause to announce that the $100,000 mark has been reached and passed, and a handsome structure is assured. There is no more meritorious hospital or resort for the sick than the Touro Infirmary. This new building will be modern in every respect and capable of meeting all the demands made upon it for many years to come. It will be one of the best equipped institutions of the kind in the South. While the larger portions of the contributions have come from citizens of New Orleans, still many large donations have been received from a number of points in Louisiana and several Southern and Northern States.

International Congress of Arts and Science to be held at the Universal Exposition, St. Louis, September 19 to 25, 1904. The organizers of this congress desire to invite the special attention of chemists and technologists to the rare opportunity which it offers them to meet and hear a great number of well known men of science. It is expected that more than three hundred eminent scholars of Europe and America will deliver discourses in the various departments and sections of the congress, and that many hundred shorter communications will be made by those present. Among the foreigners who have accepted invitations to address the technical and chemical sections of the congress are Sir William Ramsay, and Professors Moissan, Van t'Hoff, and Riedler. It is the desire of the directors of the fair and of those concerned in the organization that as many members as possible of the learned professions, including technologists, shall do honor to our distinguished visitors by attending the meetings of the congress. For this no fee is charged and no formality is necessary, except enrollment on arrival. It is, however, desirable to apprise Mr. Howard J. Rogers, Directors of Congresses, Universal Exposition, St. Louis, Mo., in advance, what departments of the congress one desires to attend. A programme of its proceedings, with such other instructions as may be necessary, will be sent by Mr. Rogers on application. It will be seen that the meetings of the congress extend through the week following the meeting of the International Electrical Congress. Nicholas Murray Butler, chairman of the administrative board; Simon Newcomb, chairman of the organizing committee.

The New Surgical Building of Johns Hopkins Hospital.—Elaborate preparations are being made for the dedication of the new surgical building of the Johns Hopkins Hospital on the morning of October 5th. The structure is now practically ready for occupancy.

The building cost about $150,000, is of brick, has four stories, and is believed to be admirably adapted for teaching. Sanitation and ventilation have been important considerations in every feature of the structure. All the floors are of tiles, every room and hallway used by patients being also wainscoted with glazed white tiles as high as a man can reach. The stairways are of marble and iron, and there are fine toilet rooms and baths on every floor. A surgical amphitheatre 40 feet high also has extensive tiling, marble work, and a hall, with wide lights, composed entirely of wired glass. There are a number of rooms for consultation. The principal feature of the building is the surgical amphitheatre, which is situated on the third and fourth floors. There the operations which are watched by the medical students will be performed. The conical incline with the seats is composed entirely of tiles and marble. The parapets in front of the seats are white enameled sheets of steel supported by narrow iron stanchions, and the seats are supported by iron bars from these plates. In order to cleanse the room all that is necessary is to turn on the hose and the incline carries the water to the bottom of the amphitheatre, where it is run into a drain. The amphitheatre is entered by the students at the fourth floor. The operating rooms, which open into the bottom of the amphitheatre, are at either side on the third floor. There are two operating rooms, in both of which a superior system of heating and ventilation is installed. The air enters the shaft from the outside and is conducted to a box in the room containing the radiators. From the radiators the air escapes gradually to the room through a metal mesh, or filter, and thus a draft of air upon the patients is prevented. On the third floor there are also waiting rooms for the patients in beds, washing rooms, dressing rooms for the surgeons, and preparing rooms. There is a room for surgical pathology and a private office for Professor Halstead, head of the surgical department. On the second floor there are a number of smaller apartments which will be used as consulting rooms on the surgical cases, each room or suite of rooms being furnished with handsome toilet rooms and baths. Here, too, is a surgical lecture room, a large, fine auditorium which will be used by Dr. Halstead and his assistants in addressing the surgical classes. On the first floor, which is entered from Monument Street, will be emergency rooms for accident cases, minor operation rooms, the orthopædic department, and the fine clinical lecture rooms, over which Dr. William Osler presides. This latter room is said to be one of the finest lecture rooms connected with any medical institution. Like the surgical amphitheatre, it is from 35 to 40 feet high, and will be lighted on the north side by long windows. It can be entered from the first and second floors. The patients brought to the operating rooms from the hospital must be carried to the third floor of the surgical building, and for this purpose a hydraulic elevator of special construction has been installed. The elevator is supported by a piston 70 feet long, which is forced up and down a cylinder by water pressure. Another feature of the building is the installation of two large vaults of brick and cement, guarded by a combination door, in which the surgical records are to be placed for storage and to secure them against fire.

Pith of Current Literature.

PRESSE MEDICALE

July 30, 1904.

1. Acute Abscesses of the Breast, By Tillaux.
2. Prophylaxis of Malarial Fever in the Isthmus of Suez, By Pressat.
3. Technics of Urethrovesical Lavage, By Melun.

1. **Acute Mammary Abscess.**—Tillaux divides acute mammary abscess (*abcès chaud*) into puerperal and non-puerperal, the former being more frequent. There are three varieties, subcutaneous, parenchymatous, and deep or submammary. The subcutaneous is not important, but should be opened. The parenchymatous is of great importance, as in making its way to the surface it follows an interlobar space and spreads out again, thus assuming the shape of a collar button. This stage should not be allowed to develop, but deep incision should be made when fluctuation is first noticeable. The deep abscess is very rare. The ætiology of these abscesses is still obscure.

2. **Malarial Fever in Suez.**—Pressat states that the fever was brought to Suez by the Greek and Italian laborers on the canal, the necessary mosquito and fresh water shortly preceding them when Ismaila was built for the early canal constructors. The fever in this town has been completely stamped out by pouring a mixture of crude and refined petroleum on every pool of stagnant water, however small, once a week, and by the free distribution of quinine and arsenical solutions for prophylactic purposes. Three grains of quinine sulphate were administered every morning to each workman, and this amount was found to be abslutely protective against an army of wicked anopheles.

August 3, 1904.

1. The Ætiology of Intermittent Hydronephrosis. By Bazy.
2. The Insufficiency of Langerhans, By Thoinot and Delamare.

1. **Intermittent Hydronephrosis.**—Bazy's article is a strong plea for the more frequent performance of ureterocystoneostomies. He cites numerous successful cases.

August 6, 1904.

1. Indications for the Cure by Dechloridization, By Javal.
2. The Necessity for the Obligatory Teaching of Otology in Medical Schools, By Politzer

1. **Dechloridization.**—Javal details two cases of nephritis in which the remarkable effects of the total withdrawal of salt from the diet and the administration of theobromine are dwelt upon. The first case, that of a boy aged sixteen years, resulted in a perfect cure, but the second in a man aged sixty-four years, improvement was only temporary and merely delayed the fatal issue. Javal speaks highly of the method of daily weighing whereby the quantity of salt to be allowed may be regulated to a nicety to the great comfort

of patients who may miss it sadly. It is no longer necessary to resort to the long and tiresome chemical analysis of the urine. In dechloridized food and theobromine we have two arms of precision, and the weighing permits us to diagnosticate præœdema, a condition otherwise likely to escape observation.

2. **The Obligatory Teaching of Otology.**—Politzer begins by recalling the disadvantages of deafness, which is only too often allowed to develop from easily curable causes which remain unrecognized by the uninstructed general practitioner. Simple catarrhs, and, *a fortiori*, suppurations demand immediate attention. Caries and necrosis of the temporal, meningitis, cerebral abscesses, phlebitis of the sinus have all an otitic origin. Mastoid abscess, which requires but a simple operation, is fatal if neglected. Politzer demands a chair of otology in every medical faculty with a rank equal to that of other chairs of practice. The course need not be as elaborate as that for specialists, but should be eminently practical.

August 10, 1904.

1. Part Played by Leucocytes in the Absorption and Elimination of Bodies Foreign to the Organism, By LABBÉ.
2. Respiratory Insufficiency; Its Treatment by Gymnastics and Respiratory Reeducation, By ROSENTHAL.

2. **Respiratory Insufficiency.**—Rosenthal, in concluding a series of articles on this subject, summarizes his conclusions as follows: 1. Full physiological action of the respiratory apparatus is necessary to health. 2. Defective respiration arrests thoracic development, and predisposes to acute and chronic respiratory disease, particularly to pulmonary tuberculosis. 3. Feeble respiratory movements react on the general systemic condition and cause infantile cachexias, slow convalescence, etc. 4. Respiratory insufficiency disappears when treated by respiratory gymnastics and reeducation. 5. The respiratory exercises are valuable only under the following conditions: (a) There must be no mechanical obstacle to respiration, adenoids, spurs on the sæptum, etc.; (b) the exercises must be conducted by the physician himself, controlled by clinical indications, auscultation, and mensuration; (c) old fashioned gymnastics can confer only muscular development which is by no means what is desired.

Besides the direct effect on respiration, the special gymnastics has an excellent influence on the nervous system, especially of young patients. The latter sometimes seem to grow more rapidly in height after a course.

SEMAINE MEDICALE.

July 27, 1904.

Applications and Technics of Jejunostomy, By LEJARS.

Jejunostomy.—Lejars thinks this operation is now a simple and useful one, allowing ample feeding and a permanent opening. As a permanent measure it is justified when other operations, e. g., gastroenterostomy, are absolutely contraindicated, but perhaps we might extend such contraindications and always perform jejunostomy in doubtful cases. Temporary jejunostomy is so useful a measure that we may look forward to a wider field of application than it has hitherto occupied.

BERLINER KLINISCHE WOCHENSCHRIFT.

July 25, 1904.

1. Inoculation from a Syphilitic Chimpanzee, By O. LASSAR.
2. A Case of Transitory Diabetes, By E. MANN.
3. Hæmolytic Action of Mercury Bichloride, By L. DETRE, and J. SELLEI.
4. Two Cases of Cystadenoma Mammæ, By E. KEIBEL.
5. Significance of Intestinal Gases in Compressed and Attenuated Air (*Concluded*), By E. ARON.

1. **Inoculation From a Syphilitic Chimpanzee.**—Lassar succeeded in inoculating a chimpanzee with syphilis. He inoculated a second chimpanzee from the first and the animal developed what Lassar deems to have been a papillary syphilide generalized over the entire body.

2. **Transitory Diabetes.**—Mann reports the case of a man who developed secondarily a true diabetes mellitus from an undoubted diabetes insipidus. Within sixteen days after he had been placed upon a diet of oatmeal, the sugar entirely disappeared from the urine. The patient eventually died of a cancer of the stomach which had invaded the pancreas.

3. **Hæmolytic Action of Sublimate.**—Detre and Sellei conclude that corrosive sublimate is a poison to the red cells evoking hæmolysis in certain strengths and fixing the red cells in strong solutions. The power of the hæmolysis is dependent upon the temperature and the length of time, but it is preceded by a period of incubation which has an inverse relation to the temperature and the concentration of the poison. Owing to the avidity of lecithin for sublimate, the authors believe, from their experiments, that some lipoid form of lecithin in the red blood cells is responsible for the hæmolytic action of sublimate on the red cells.

5. **Intestinal Gases.**—Aron finds by experiment that in compressed and attenuated atmospheres, the pressure in the pleura is changed as to the atmospheric pressure even when the intestinal gases are removed mechanically. This would tend to show that the pleura is never entirely free from air. The intestinal gases must be considered in their effect upon the animal organism with changed atmospheric conditions.

August 1, 1904.

1. Case of Family Locomotor Ataxia on a Syphilitic Basis, By M. NONNE.
2. Polymyositis and Polyneuritis in Measles, By W. JESSEN, and E. EDENS.
3. Rhinophyma and Its Treatment, By S. L. BOGROW.
4. Case of Fracture of Neck of the Femur in a Child, By R. LAMMERS.
5. Belladonna Poisoning in Ophthalmic Practice, By J. FEJER.

1. **Hereditary Locomotor Ataxia.**—Nonne reports the cases of a mother and two daughters, the latter the victims of hereditary syphilis, suffering

from locomotor ataxia. The two daughters have little ataxia, but in addition to disturbances of sensation, they both have optic atrophy. Another, born between the sisters, is perfectly well. The author reports two other cases which demonstrate the disposition of those with hereditary syphilis, to have severe organic disease.

2. **Polymyositis and Polyneuritis in Measles.**—Jessen and Edens record several such cases In one, an adult woman, a diffuse swelling of the muscles with œdema appeared ten days after the measles eruption, the course of the myositis being very prolonged. In another case of a girl of sixteen, there was a general hyperæsthesia of the skin with painful pressure points over some of the nerve trunks. These symptoms gradually disappeared. No other cause than the measles could be found for the neuritis. This is the third recorded case.

5. **Belladonna Poisoning in Ophthalmic Practice.**—Fejer narrates the case of a physician who had paralysis of accommodation following the ingestion of a powder containing extract of belladonna. In another case, blindness lasting for five days followed the administration of twenty-five grains of belladonna in the course of three weeks. In a third case, symptoms of poisoning followed the use of eye drops containing atropine.

ZENTRALBLATT FUER GYNAEKOLOGIE.

July 30, 1904.

1. Hebotomy, By T. H. van de Velde.

1. **Hebotomy.**—Van de Velde has rehabilitated Staltz's operation of sawing through the pubic bone for the permanent enlargement of contracted pelvis. He reports a third case in addition to his former two, in all of which the results to mother and child were good. In the second case, hæmorrhage from an atonic uterus had to be stopped by tamponade. The pelvic measurements before and after the operation showed an enlargement of the pelvic ring by the operation of 1.5 cm. The author considers hebotomy far superior to symphisiotomy.

August 6, 1904.

1. Treatment of Postoperative Intestinal Paresis by Physostigmine, By Pankow.

1. **Physostigmine for Intestinal Paresis.**—Pankow does not agree with the previously favorable reports of this drug in its action as a stimulant to peristalsis. He examined 210 operated cases as to the first signs of distention with gas when no eserine was given. After laparatomies and Alexander's operation, meteorism was never seen under four hours, although it was sometimes observed in vaginal cases. The abdominal cases showed distention in from four to twelve hours and the Alexander's cases usually only after twenty-four hours. When the patients had received physostigmine on the operating table, the result was about the same, clinically as well as in percentages. Pankow regards the best prophylaxis against postoperative intestinal paresis to be suitable preparation and avoidance of all undue handling of the intestines during operation.

MEDICAL NEWS.

September 3, 1904.

1. Comparative Progress of Medicine and Law, By The Honorable W. W. Goodrich.
2. High Frequency Currents; Their Physiological Action and Methods of Applications, By A. D. Mabie.
3. Arthritis Deformans and Its Treatment, By Louis Kolipinski.
4. Paratyphoid; A Case of the Hæmorrhagic Variety, By T. H. Evans.
5. Intestinal Obstruction Following Appendicitis Operations. Report of Eighty-six Cases, By Clarence A. McWilliams.
6. A Case of Ludwig's Angina, By C. M. Harris.
7. Endermol, a New Vehicle for Ointments, By Professor Virgil Coblentz.
8. A Simple and Accurate Method for Estimation of Sugar in the Urine, By Harvey C. Beck.
9. Present Day Treatment of Tuberculosis, By J. W. Kime.

2. **High Frequency Currents.**—Mabie reviews at some length the physiological action and the best methods of applying high frequency currents. He describes and illustrates the various apparatus needed. It is not possible at the present time to define the limits of usefulness of such currents nor to furnish a formula for their application. They have been employed, and have given excellent results in diseases due to lowered nutrition, in affections of the respiratory tract, in affections of the alimentary canal, in constipation, hæmorrhoids, and anal fissure, neurasthenia and neuritis, articular affections of different origin and in a great number of dermatoses. The contraindications for high frequency currents are valvular disease of the heart, and hysteria.

3. **Arthritis Deformans.**—Kolipinsky asserts that by the methods he describes arthritis deformans can often be cured and at times the results achieved will be rapid and brilliant. The gloomy prognosis of the literature is not called for if the disease is recognized early and properly treated. The following is the outline of the author's method: The indications for treatment are: (1) Relief from pain; (2) correct the stiffness and rigidity of the affected joints and muscular contractions; (3) increase the muscular strength; (4) cure the anæmia; (5) increase, where necessary, the body weight; (6) symptomatically regulate or slow the pulse. To fulfill these indications three agencies are necessary, and so indispensable is each one that no two alone will suffice to achieve good results. They are (1) for pain, anæmia, the rapid pulse and malnutrition, arsenic; (2) for stiffness, contraction and muscular atrophy, voluntary exercise; and (3) for weakness, anæmia, loss of weight and the pain, greater nutrition brought about by increasing and selecting the food supply.

4. **Paratyphoid.**—Evans's case of paratyphoid fever seems to be like a case of ordinary typhoid of about four weeks' duration. The Widal reaction was positive at the sixth week and no mention is made of any paratyphoid reaction. The hæmorrhage, which occurred about the third week, was from the uterus.

5. Intestinal Obstruction.—McWilliams draws fifteen conclusions from his study. We give them in greatly abbreviated form: (1) Intestinal obstruction following appendicitis is rare. It may occur in cases that have not been operated upon or that have been operated upon in the "interval." It is most frequent in abscess cases. (2) Mechanical obstruction may come on within a short time after the appendicitis operation Diagnosis from that due to peritonitis may present great difficulties. When in doubt, operate. (3) Obstruction may occur years after the original attack, or operation. (4) There may be several attacks of true, mechanical obstruction. (5) Of the eighty-six patients, fifty-seven, or 66.3 per cent., recovered after operations for obstructions. Twenty-nine patients, or 33.7 per cent., died. (6) The cause of the obstruction was given in fifty-three cases as follows: Constrictions by bands in twenty-eight patients; volvuli in ten; kinkings, or angulations, in eleven; and internal hernias in four cases. (7) Prophylaxis consists in operating upon appendicitis before the formation of pus, the use of as little drainage as possible, and the least possible amount of handling of the intestines. (8) Vigorous abdominal massage with elevation of the hips may avert an impending obstruction. Frequent change in patient's position is recommended. (9) Since the exciting cause is in many cases an attack of acute indigestion, patients should have their diet carefully regulated for from four to six weeks after an attack of appendicitis or after an operation.

8. Estimation of Sugar in the Urine.—Beck claims for the method, he proposes the following advantages: (1) The estimation can ordinarily be made in less than ten minutes. (2) With reasonable care the results obtained are decidedly more accurate than by Fehling's method. (3) The solution never reaching the boiling temperature, the possibility of substances appearing in the urine which reduce Fehling's solution at the boiling point, as uric acid, kreatin kreatinin, nucleoalbumin, etc., is eliminated. The method is based on the reduction of the ordinary Fehling solution by sugar.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

September 3, 1904.

1. Further Studies of the Intracellular Bacterial Toxines. By Victor C. Vaughan.
2. Primary Malignant Endotracheal Tumor. Preliminary Report. By Judson Daland, and Joseph McFarland.
3. Regenerative Changes in Cirrhosis of the Liver By W. G. MacCallum.
4. Heart Disease as an Obstetrical Complication, By C. S. Bacon.
5. Oral Infection and Sterilization, By M. L. Rhein.
6. The Surgery of the Biliary Tract. Especially the Indications for Operation and the Importance of Drainage, By Maurice H. Richardson.
7. The United States Public Health and Marine Hospital Service. Part II. The Service as It Is To-day (*Continued*).
8. Fourth of July Tetanus. The Effect of Publicity and Prophylaxis in Reducing the Mortality.
9. Travel Notes. VII. A Winter Semester, By Lewellys F. Baker.

2. Endotracheal Tumor.—Daland and McFarland report one case of primary malignant endotracheal tumor. The paper is specially full regarding the pathology of the growth. The case is interesting chiefly from ætiological and pathological standpoints.

3. Cirrhosis of the Liver.—MacCallum, after reviewing the latest studies and theories regarding cirrhosis of the liver, summarizes his own conclusions in the following definition: Cirrhosis of the liver is a chronic disease in which destructive processes, probably often repeated, result in a loss of the functional liver tissue immediately followed by the formation of a scar, the healing process, and later by an attempt at the restitution of the liver to normal by regenerative processes.

4. Heart Disease and Obstetrics.—Bacon considers not only the effect of a damaged heart on pregnancy and labor, but also the effect of childbearing on the heart. Such practical questions as the care of a pregnant patient whose heart is damaged, her diet and hygiene, are discussed at length. The indications for the production of abortion or the induction of premature labor are given with some definiteness and the methods to be preferred are indicated though not described.

6. The Biliary Tract.—Richardson concludes his paper thus: (1) Gallstones should be removed whenever they are known to exist, whether they offend or not, provided the patient's general and local conditions are favorable. (2) Drainage should be employed until the bile spontaneously ceases to flow through the wound. (3) Hernia in the scar is best prevented by a muscle splitting incision. (4) Biliary fistula means a common duct obstructed usually by a gallstone, and it requires a second operation to close it or a cholecystenterostomy.

MEDICAL RECORD.

September 3, 1904.

1. Arteriosclerosis of the Spinal Cord. By Joseph Collins, and Edwin G. Zabriskie.
2. The Treatment of Tuberculosis of the Larynx and of the Prostate Gland by the X Ray, High Frequency Currents, and the Cooper-Hewitt Light, By Sinclair Tousey.
3. Internal Urethrotomy in the Treatment of Stricture of the Membranous Urethra, By Charles C. Miller.
4. Alcoholism and Inebriety; an Ætiological Study, By T. D. Crothers.
5. Minus Cylinders By F. W. Higgins
6. Gastrostomy for Stoppage at the Cardia, By H. W. Lincoln.
7. The Stomach Reflex and Percussion of the Stomach, By Albert Abrams.

1. Arteriosclerosis of the Spinal Cord.—Collins and Zabriskie report two cases of spinal arteriosclerosis. The first of the cases died and an autopsy was obtained. The necropsy findings are given in detail and many illustrations show the condition of the cord. The symptoms the first patient presented were, in the order of their development: (1) Weakness and easily induced fatigue of the legs; (2) peculiar sensations in the lower extremities, described as "jerky," "numbness," "heavy," and occasionally sharp pain; (3) progressive incontinence of urine; (4) progressive paraplegia. The authors hold that while cerebral arteriosclerosis is a well understood and not infrequent condition its equivalent in the cord is little understood. Under myelitis are undoubtedly included many cases of spinal arteriosclerosis, disseminated sclerosis and obliterating endarteritis. The various conditions can be and should be distinguished.

2. **Tuberculosis of the Larynx and of the Prostate.**—Tousey has had some very promising results in the treatment of tuberculosis of the larynx and of the prostate by a combination of methods as set forth in the title of the paper. He reviews the literature of this plan of treatment, describes the apparatus required and finally reports in detail two cases that have been under his care.

3. **Internal Urethrotomy.**—Miller admits that most surgeons treat strictures of the membranous urethra by gradual dilatation rather than by internal division. He is in favor of internal urethrotomy, performed with the Maisonneuve urethrotome, and his paper presents his reasons for this and calls attention to the precautions which one must observe in order that the results may justify the choice.

4. **Alcoholism and Inebriety.**—Crothers insists that there is a fundamental difference between the alcoholic and the inebriate. If we apprehend his meaning correctly he asserts that alcoholism is a symptom of some physical or mental abberation and is not in itself the whole trouble. Inebriety is the state of persons who are stupid or demented from alcohol, or other narcotic drugs. The use of the alcohol or drugs in such cases may have been acquired quite accidentally. The distinction is important when it comes to prognosis and treatment. The alcoholic can be relieved temporarily by long abstinence, exact living in the best surroundings, but his restoration or cure in the sense of totally removing the causes is impossible. Abstinence from alcohol may be complete the rest of his life, owing to physiological change, but the defects of cell and brain circulation and metabolism of the body can never be fully restored. The inebriate, on the contrary, is often permanently restored, the defects of constitution, if acquired, may be remedied in a measure, and the particular conditions of exhaustion and feebleness, which preceded the drink craze, can be overcome.

AMERICAN MEDICINE.

September 3, 1904.

1. Meteorological Conditions in the Causation of Lobar Pneumonia, By J. M. Anders.
2. Latent Malaria, as Seen in the Mountains, By Lawrence E. Holmes.
3. On the Significance of a Heart Murmur, By James S. McLester.
4. Thoracic Empyema, By W. R. Jackson.
5. Hypertrophy of the Lingual Tonsil, By J. J. Richardson.
6. The Antiblennorrhagic Drugs in Gonorrhœal Urethritis: The Question of Their Value, By A. Nelken.
7. Who is Your Physician? By H. Winnett Orr.

1. **Lobar Pneumonia.**—Anders concludes a rather elaborate paper with the following inferences: (1) The seasons exert a marked effect upon the prevalence of lobar pneumonia. (2) Insular climates manifest the greatest rise in pneumonia mortality in winter; that of continental climates coincides mainly with spring. (3) The mortality of the epidemic form of the disease is, to a less extent, influenced by the seasons. (4) An apparently close relationship exists between periods of low temperature and the death rate from pneumonia. (5) Mortality rises and falls with the barometric pressure, the maximal level being reached during periods of highest pressure and vice versa. (6) The average velocity of the winds and the death rate from this disease appear to stand to one another in the relation of cause and effect. (7) The coincidence of existing low temperatures, high barometric pressure, the direction and velocity of the winds and maximum mortality from pneumonia, is so uniformly constant as to merit serious consideration. (8) The major influence exerted by the seasons, however, is probably not direct, but indirect, namely, by bringing about that effective element in the causation, concentration, and increased virulence of the specific poison in consequence of closed doors and windows and lack of free ventilation.

2. **Malaria.**—Holmes asserts that malaria which has become latent while residence in a malarious district has been continued is apt to break out again if the sufferer goes to the mountains. Three cases are reported.

3. **Heart Murmurs.**—McLester emphasizes the fact that a diagnosis in suspected heart disease must never rest on the presence or absence of murmurs alone and that loud murmurs are more apt to denote a strong heart muscle than a very severe lesion. The size of the heart, the condition of the circulation, and the constitutional signs of cardiac insufficiency must all be considered before venturing upon a prognosis.

5. **The Lingual Tonsil.**—Richardson asserts that hypertrophy of the lingual tonsil is often overlooked. Many coughs of long standing are due to this cause and the author believes that fully twenty per cent. of all singers and public speakers are subject to this morbid condition. Treatment consists in removal of the redundant tissue. The galvanocautery is used by many. The author prefers to use the Miles tonsillotome.

6. **Antiblennorrhagic Drugs.**—Nelken asserts his belief that none of the so called specific drugs for the treatment of gonorrhœa are of the slightest good. If they are given in sufficiently large doses to influence the urine they will give rise to grave constitutional and local disturbances.

BOSTON MEDICAL AND SURGICAL JOURNAL.

September 1, 1904.

1. Clinical Topography of Lymph Nodes, By F. J. Cotton.
2. Surgery on Old Men. By William H. Arthur.
3. Mental Defectives, By Bertha C. Downing.
4. Operations on the Stomach, with Report of Cases (*Concluded*), By John C. Munro.

1. **Topography of Lymph Nodes.**—Cotton asserts that most surgical affections of lymph nodes are secondary to some local focus of infection. He holds that we pay too little attention to the study of the drainage areas of lymph nodes and so frequently overlook the original source of trouble. The arrangement of the large drainage areas and their relation to the main lymph trunks and important chains of glands is constant enough to be of practical advantage. The author reports sixty-seven cases of glandular enlargement due to a variety of causes, and, by analyzing them, attempts to check and illustrate the more important and comprehensive facts relating to the topography of the lymphatics as set forth in leading textbooks. The three following practical conclusions are drawn: (1) So called scrofulous glands of the neck in children which first appear in the posterior deep and superficial chains are rarely tuberculous in character. They are mostly due to scalp irritation produced by pediculi. (2) Buboes of unknown origin, low in the groin, are usually due to a septic focus on the foot or leg. (3) Inguinal bubo, associated with gonorrhœa, is not due to the gonorrhœa, but to a septic focus under the prepuce.

2. **Surgery on Old Men.**—Arthur, at a soldiers' home, performed 22 operations on patients averaging 70.4 years of age. There was one death. The author concludes that old men stand operations better than is generally supposed.

3. **Mental Defectives.**—Downing places the number of mental defectives in the United States at about 100,000. So far little or no provision has been made for the care of these unfortunates. As they are a constant menace to society the author pleads that they should be made wards of the State. They should be segregated in youth and prevented from propagating their kind. Tuberculosis in the parents is the most frequent ætiological cause of feeble minded and imbecile children.

4. **Operations on the Stomach.**—Munro reports ninety operations on the stomach. They are not all personal cases. The surgical technics is not elaborated. The object of the paper is two fold: (1) To present the clinical histories in the form they would have been taken by the general practitioner. (2) To describe the gross pathological conditions, as revealed by operation, which gave rise to the symptoms noted. The paper is written for the internist and not for the surgeon. The author believes that a study of the cases he reports will permit of making fairly accurate anatomical diagnoses from case histories.

BRITISH MEDICAL JOURNAL.

August 20, 1904.

(*Seventy-second Annual Meeting of the British Medical Association.*)

Section of Tropical Diseases.

1. President's Address, By A. Crombie.
2. Discussion on Trypanosomiasis, By D. Bruce, J. E. Dutton, and Others.

Section of Navy, Army, and Ambulance.

3. Discussion on the Organization During Peace of Civil, Medical, and Ambulance Aid to Insure an Immediate Reserve of Trained Assistance on the Outbreak of War, By J. E. Squire, E. C. Freeman, and Others.
4. First Aid in Civil Life in the Tropics as Illustrated by Indian Experience, By T. H. Hendley.
5. The Treatment of Dental Disease in the Navy, By N. Bennett.
6. The Volunteer Brigade Medical Unit: Its Personnel, Equipment, and Transport. By P. B. Giles.
7. Reminiscences of St. John Ambulance Work During the Past 24 Years, with Special Reference to Voluntary Aid for the Navy and Army in National Emergencies, By G. A. Hutton.

1. **Indian Fevers.**—Crombie states that a large proportion of the febrile attacks of hot climates must be included in the terms febricula and simple continued fever, and that the evidence that they are all malarial is inadmissible. The parasite is rarely found in the blood, they recover after one paroxysm whether quinine be given or not, and the increase in mononuclear leucocytes cannot be looked on as pathognomonic. The existence of what he described ten years ago as a non-malarial remittent fever has been confirmed by the work of Leishman, the parasite first described by that observer giving rise to just such a type of fever. The writer speaks a word of warning against accepting the results of clinical tests as final from a diagnostic point of view. The increase of the lymphocytes in the blood in typhoid fever, and of the large mononuclears in malaria are not peculiar to those diseases. And, as regards the Widal test, he has found that in many instances the blood of healthy Indian natives contains agglutinins, and gives the Widal reaction in low dilutions.

2. **Trypanosomiasis.**—Bruce lays down the following propositions: 1. The trypanosome found in the blood of natives on the West Coast of Africa and in Uganda, and those found in cases of sleeping sickness do not differ morphologically, and behave identically when injected into animals. 2. The so called trypanosome fever is nothing but the first stage of sleeping sickness. This has been proved clinically by the fact that several natives, who suffered from the fever one year ago have since developed sleeping sickness. 3. Neither the native nor the European is immune to this disease. 4. The prognosis, instead of being favorable, is, as far as we know, hopeless—the mortality is 100 per cent. in both colored and uncolored races. The author doubts very much if the trypanosomes are ever killed off, once they have gained entrance to the circulation. 5. Up to the present no evidence has been brought forward to show that any of the lower animals play any important part in the spread of human trypanosomiasis. 6. Human trypanosomiasis is conveyed from the sick to the healthy by means of a biting fly—the *glossina palpalis*, or tzetse fly. The distribution of this fly and of sleeping sickness is identical. 7. Several other tzetse flies can carry the infection, thus constituting a danger that this disease may spread into British East Africa. 8. There is no proof that other genera of biting flies such as *Stomoxys* and *Tabanus*, carry the infection under ordinary conditions. 9. There is no proof

that *trypanosoma gambiense* passes through any metamorphosis in *glossina palpalis*, but that the transference of the parasites by this fly from one animal to another is purely mechanical. 10. All the stages of the development of the trypanosome take place in the human host. 11. The measures for the prevention of the spread of sleeping sickness should aim at preventing, as far as possible, the movements of natives from sleeping sickness areas into any part of the country where any species of tzetse fly is found.

Dutton, Todd, and Christy report the results of their study of the relation of human trypanosomiasis to Congo sleeping sickness. In nearly every case in which sleeping sickness was diagnosticated, trypanosomes were found in the blood, or cerebrospinal fluid, or both. There is an evident clinical connection between mild cases of trypanosomiasis and advanced sleeping sickness. An undoubted trypanosome disease occurs in horses. Men may have the disease for a year or more before showing any symptoms. No native who has shown definite and constant signs of ill health has ever recovered. There is not sufficient evidence, however, that death is produced by the trypanosomes alone. Secondary bacterial infections (meningitis, pleurisy, pneumonia, etc.) seem to determine the fatal issue of many cases of sleeping sickness. No definite relation could be made out between the temperature and pulse and the appearance of the parasites in the peripheral circulation.

Christy has studied the cerebrospinal fluid in sleeping sickness, and arrives at the following provisional conclusions: 1. That in many cases the trypanosomes never find their way into the cerebrospinal fluid, and in those cases in which they do they are more frequently to be found towards the termination of the disease. 2. That the commencement of the fever or other symptoms is in no way correlated to the entrance of the parasites into the cerebrospinal fluid. 3. That a large number of trypanosomes in the cerebrospinal fluid is rare, but when it does occur there is usually an access of temperature. 4. That the parasites may come and go in the cerebrospinal fluid as in the blood. 5. That enormous numbers may appear in the blood without appearing in the cerebrospinal fluid, and, to some extent, vice versa. 6. That when trypanosomes are present in the cerebrospinal fluid its white cell elements are apt to be increased. 7. That in cases where the parasites gain access to the cerebrospinal fluid early in the disease, mania and other head symptoms are more likely to be prominent.

Manson does not accept the view that trypanosomiasis is always the first stage of sleeping sickness. In the German territory at the south end of the Victoria Nyanza the entire population is stated to be infected with trypanosomes, but sleeping sickness is unknown there.

August 27, 1904.

(Seventy-second Annual Meeting of the British Medical Association.)

Section of State Medicine.

1. Discussion on the Control of the Milk Supply,
   By G. Newman, H. de Rothschild, and Others.
2. The Teaching of Hygiene in Public Elementary Schools, and the Influence on the Public Health of the Infants' Departments of Such Schools, By W. U. Barlow.
3. School Diphtheria in the Metropolis,
   By C. J. Thomas.
4. Discussion on Poverty and Public Health,
   By T. P. Whittaker, Mrs. B. Bosanquet, and Others.
5. A Plea for Oral Hygiene, By K. W. Goadby.
6. The Segregation of Tuberculous Patients Among Factory Workers, By C. W. J. Brasher.

1. **Milk Supply.**—Newman states that the reasons necessitating control of milk may be broadly divided into two: (1) The prevention of milk borne disease; and (2) the improvement and increase of the milk supply. Typhoid infection of milk may result from: (a) personal contact with typhoid patients; (b) infection from washing milk vessels with infected water; (c) infection by the addition of infected water directly to milk; (d) infection from the air from dried typhoid excreta; (e) infection from contaminated cloths or clothes; and (f) infection from water used for cooling milk vessels. Scarlet fever and diphtheria are transmitted by milk; in general the source of infection is the throat and mouth of the patient. Sore throat illnesses and epidemic diarrhœa are also transmitted by milk. The milk may conduce to diarrhœa only by reason of its contained toxines. The question as to the transmission of tuberculosis by milk is as yet unsettled. The author, however, believes that human and bovine tuberculosis are intercommunicable. The control of the milk supply should arise naturally and in part from the demand of the consumer, and this should be met by the enterprise of the trade and by legislation.

3. **School Diphtheria.**—Thomas's conclusions are as follows: 1. Diphtheria is spread by schools to a certain and considerable degree. 2. It is spread by direct personal transmission. 3. It can be checked by swabbing and excluding children carrying diphtheria organisms. 4. These children have chiefly mild, actually suffering cases. 5. Their age is usually between five and eight years. 6. Pseudodiphtheria organisms may be safely ignored. 7. School closure for diphtheria should be looked upon as a confession of impotence and defeat. 8. There is urgent need of greater recognition even on the part of medical practitioners of the rôle of slight cases and carriers. In many instances children sent home as having diphtheria bacilli in their throats, are sent back to school by the family physician as not having diphtheria. 9. All contacts with diphtheria should be vigorously swabbed before being allowed to mix with the general population. Disinfection of homes without this protection is futile. 10. Much greater facilities for bacteriological examination need to be provided. 11. The annual reports of medical officers of health dealing with such facts as these should be made a means of education on these points, and be distributed to all members of the medical profession in the sanitary district.

6. **Segregation of Tuberculosis Patients.**—Brasher reports that the segregation of tuberculosis cases has been in practice in the factories of J. S. Fry and Sons in Bristol, for the past four years. More than two thousand women are employed;

during the last four years fourteen cases of phthisis have occurred. Of these three died and nine left the employ. During the first seven months of 1904 not a single case has occurred. No phthisical patient is allowed to return to work until repeated examinations of the sputum have given uniformly negative results.

LANCET.

August 20, 1904.

1. Reflections Suggested by the New Theory of Matter, By A. J. BALFOUR.
2. The Pathology and Treatment of the Herniæ of Children and Their Relation to Conditions in the Adult, By E. M. CORNER.
3. "Electrocution" on the Railway: the Dangers of the Live Rail, By T. OLIVER.
4. On the Action of Venoms of Different Species of Poisonous Snakes on the Nervous System, By G. LAMB.
5. The Respiratory and Cardiac Reflex Induced by Peripheral Impressions on the Pudic Nerve During Anæsthesia, By A. WILSON.
6. Case of Latent Portal Cirrhosis with Sudden Onset of Hæmatemesis and Rapidly Fatal Toxæmia, By R. M. MCQUEEN.
7. The Medical Treatment of Deep Seated Hæmorrhage, By F. HARE.
8. The Rideal-Walker Method of Testing Disinfectants, with Special Reference to the Action of Formaldehyde Solution and Cyllin on the Plague Bacillus, By W. J. R. SIMPSON, and R. T. HEWLETT.
9. A Cause of Intestinal Obstruction After Gastroenterostomy, By H. M. W. GRAY.

2. **Herniæ of Children.**—Corner places the greatest importance on the gastrointestinal fermentation in the causation and production of herniæ in children, and looks upon congenital malformations of the tunica vaginalis as merely important conditions predisposing thereto. Upon this view the importance of dietetics for the prevention of gastrointestinal disturbances is still further emphasized. The popular idea is that phimosis plays an important part in the causation of the herniæ of children. Yet the author has rarely seen a case which satisfied him of the truth of this statement. In children it is the continuance or persistence of the increase of the intra-abdominal pressure, such as that arising from gastrointestinal fermentation, which gives rise to the formation of a hernia rather than the sudden and more violent increments of pressure which arise from muscular efforts and straining. In adults the conditions seem rather to be reversed.

A number of the herniæ in children are cured by the use of a truss, exception being made of those with congenital sacs, these latter being apparently incurable short of operation. Cure results in the cases with acquired sacs, either by the obliteration of the neck of the sac, or as the result of the natural growth of the child. The original cause of the hernia ceasing to exist the concurrent increase in size and capacity of the body as the child grows, will lead to the retraction of the acquired hernia sac into the abdomen. By attention to the diet much can be done toward both the cure and prevention of herniæ. With an acquired sac the administration of purgatives combined with recumbency and the use of a light truss will be the proper treatment. At the age of four years or thereabouts all herniæ of children should be submitted to operation unless there are special circumstances. Particular mention should be made of (a) those with a congenital sac; (b) those with an imperfectly descended testis; and (c) those which have been, and apparently will be, permanent in character. Little is known as to the relation between the herniæ of adults and those of children. Long continued abdominal distention during the period of growth may bring about a lax and weakly condition of the herniæ rings. The seeds of future hernia formation are often sown during infancy and childhood.

4. **Snake Venom and the Nervous System.**—Lamb and Hunter have studied the action of cobra venom on the nervous system of monkeys. They find that the longer the animal lives after the injection the more advanced are the changes in the ganglion cells. As regards the central nervous system the venom seems to act chiefly on the ganglion cells, for there are no appearances of degeneration of the myelin or axis cylinders in the cord, medulla, pons, or cortex. There is possibly a slight reaction in the connective tissue elements in the gray matter, for in most of the cases the neurophagen cells seemed more numerous than normal. Nothing definite was found as to the effect produced upon peripheral nerves. While antirenene probably modifies the action of the venom, still it does not at once stop the chromatolysis going on in the ganglion cells.

5. **Dilatation of the Sphincter Ani.**—Wilson discusses Macewen's suggestion of forcible dilatation of the sphincter ani as a remedy in chloroform accidents, the object being to stimulate respiration. Of course, in the conscious subject the expulsive effort brought about by such dilatation is preceded by a deep inspiration, but in a state of narcosis sufficiently profound to produce respiratory paralysis this would not take place. It is questionable if at any stage of the narcosis other than a very slight one this almost involuntary preliminary inspiration could be elicicted by dilatation of the sphincter ani.

7. **Medical Treatment of Hæmorrhage.**—Hare was led by physiological considerations to treat deep seated hæmorrhage (hæmoptysis, etc.) by promoting the fall of the general blood pressure by wide spread vasodilatation, the administration of amyl nitrite by inhalation being the obvious means of fulfilling this indication. Five consecutive attacks of hæmoptysis occurring in four patients were stopped instantaneously by amyl nitrite inhalation. Hare has not had so far an instance of even comparative failure.

August 27, 1904.

1. Preventive Work in the Tropics, By W. J. R. SIMPSON.
2. On the Diagnosis of Osteosarcoma of the Long Bones, By W. H. BATTLE.

3. Note on the Serum Treatment of Exophthalmic Goitre. By G. R. MURRAY.
4. The Radical Cure of Patent Urachus (Urachal Urinary Fistula), By B. C. STEVENS.
5. Notes on a Series of Operations for the Accidents and Complications of Gastric Ulcer, By G. R. ANDERSON.
6. A Case of Acute Diabetes Insipidus with Fatal Coma, By A. H. CARTER.
7. A Method of Hysterectomy, By J. O'CONOR.
8. Meningeal Infection by the Diplococcus Pneumoniæ, Simulating Infective Cerebrospinal Meningitis, By W. G. BARRAS.
9. Hæmorrhagic Smallpox: a Clinical Note of Thirty-six Cases, By C. FRASER.
10. Formaldehyde in Milk, By W. S. TEBB.
11. Two Cases of Poisoning by Mussels—One Fatal, By R. ROLFE.
12. A New Pathogenic Bacterium Causing Basal Meningitis in Infants, By W. D'E. EMERY.
13. South African Horse Sickness: a Novel Method of Treatment by Oxygen Inhalations. By H. K. SMYTH.

2. **Osteosarcoma.** — Battle reports several cases illustrative of osteosarcoma of the long bones. Such growths are most frequently found in connection with the thigh, where they offer certain difficulties in their diagnosis. As a rule there is a history of a tumor of rapid painless growth, with, or perhaps without, a history of injury. The tumor is hard, without tenderness, and has a well-defined, somewhat abrupt margin. The x ray shows an invasion of the new growth by spicules and irregular columns of new bone, radiating from the periosteum almost to the periphery of the growth. Should this arrangement of permeating bone be different and the amount of softer growth of the periphery be almost imperceptible then difficulty arises, especially if there is a clear history not only of injury, but of actual fracture of the bone. Osteitis deformans rarely affects the femur only (there are usually other bones affected, including the skull) and when it does it leads to tumor of slow growth with shortening in the length of the limb. Quiet necrosis may also very closely simulate the formation of a sarcoma of the bones. There will have been a history of the formation of a tumor attended with little or no pain, and not only with no signs of suppuration, but not even those of inflammation. Moreover, there may have been a spontaneous fracture.

3. **Exophthalmic Goître.** — Murray has thought it possible that in acute fatal cases of exophthalmic goître, where the symptoms are evidently due to a toxæmia, an antitoxic serum might be useful. A cytotoxic serum might have a specific action in inducing atrophic changes in the redundant secretory epithelium of the enlarged thyreoid gland and so diminish its over-activity; or an antitoxic serum might be prepared which would directly neutralize the action of the excess of secretion in the blood. The disease is a toxæmia, the causative toxines of which are produced by the diseased thyreoid gland, just as much as diphtheria is a toxæmia due to the production of toxines in the locally infected area. After describing the attempts of Portis and Moebius to obtain a curative serum, the author describes his own method. He fed rabbits with thyreoid extract by the mouth, until loss of weight and other symptoms showed that a sufficient amount had been given. The rabbits were then killed by bleeding, the serum decanted off, and 0.2 per cent. of carbolic acid added. He used the serum in two cases of exophthalmic goître, from seven to ten minims being given thrice daily by the mouth. In neither case, however, could any special effect be attributed to the serum. It is possible if larger animals were used and larger doses of thyreoid extract given, a serum might be obtained which could be used for hypodermic injection in acute cases, or for administration by mouth in chronic cases where prolonged treatment would be required.

5. **Gastric Ulcer.**—Anderson gives briefly the results of the operations for gastric ulcer performed by him in the past five years. The early recognition of the severity of the case is all important. In most cases a posterior gastroenterostomy holds out a prospect of renewed health and comfort, and may be offered to a patient with rapidly diminishing risks. Six cardinal points are essential in its performance: (1) The site of junction, namely, the posterior aspect of the stomach as opposed to the anterior whenever possible, and in but few cases is it impossible to effect a posterior junction; (2) shortness of the loop of bowel as measured from the duodenojejunal angle; (3) the obliquity of the incision into the stomach, namely, from below upwards; (4) approximation as near as possible to the greater curvature; (5) removal of superfluous gastric and intestinal mucous membrane; and (6) immediate suturing with fine silk by an inner and outer layer together with the use of clamps during the process of suturing. Shortening of the loop is all-important for the prevention of regurgitant vomiting. In the after-treatment it is especially important to pillow the patient up in a semirecumbent position as soon as the anæsthetic sickness has passed away, and to give early attention to judicious feeding. The author reports seven illustrative cases of acute perforation and ten cases of chronic gastric ulcer.

6. **Fatal Diabetes Insipidus.**—Carter reports the case of a girl aged eight years, who suddenly developed polyuria, the urine not containing sugar. She gradually failed, and fifteen days later symptoms of coma appeared, which proved fatal in three days. The pulse was feeble and compressible, and the respirations increased in frequency and sighing. The temperature never rose above normal. The condition was obviously closely allied to, if not identical with, the so-called Küssmaul's coma in diabetes mellitus.

7. **Hysterectomy.**—O'Conor advocates panhysterectomy for the following reasons: 1. In many patients with fibroid disease there coexists some cervical lesion, such as laceration, glandular hypertrophy, or chronic endocervicitis, and the retention of a diseased stump would be inexpedient. 2. In Bland-Sutton's fibrosis it would be puerile to remove the body and leave the neck. 3. In some cases the real nature of the tumor is unknown until after a postoperative microscopical examination has

been made. 4. The development of cancer in the derelict stump is not unknown. 5. In cases of cancer and cervical fibroids panhysterectomy has to be performed. 6. If parametric drainage should be required the stump of the cervix is not an ideal drain —*i. e.,* an aseptic one providing free and spontaneous drainage. 7. Vaginal hernia does not take place if the vaginal wound is sutured and rarely does so even when this detail is omitted.

8. **Pneumococcus Infection.**—Barras reports the case of a boy aged five years, in which there were all the symptoms of acute infective cerebrospinal meningitis, and which proved fatal in five days. At the necropsy the pia mater was found to be deeply congested and the whole convexity and base of the brain were covered with fibrinous pus. There was no trace of tubercle. Bacteriological examination of the meningeal exudate showed large numbers of typical diplococci pneumoniæ. There was no preceding lobar pneumonia, or disease of the nose or ear, nor any history of an injury to the skull, and the case could only be regarded as a primary pneumococcic infection.

9. **Hæmorrhagic Smallpox.**—Fraser records the following facts regarding hæmorrhagic smallpox. The unvaccinated seem to be more liable to this type of the disease—3.3 per cent. as against 3.1 per cent. of the vaccinated. The young tend to escape; only three out of thirty-six cases were under ten years of age. The average age was 32.4 years. Men are more frequently affected than women, in the proportion of twenty to sixteen. The patient usually has a voracious appetite and can retain and utilize nourishment.

10. **Formaldehyde in Milk.**—Tebb recommends a method for the accurate estimation of formalin in milk. It depends on the pink color which develops when fuchsin decolorized with sulphurous acid (Schiff's reagent) is added to the clear filtrate obtained after the precipitation of casein and fat from diluted milk. As a result of his observations he states that when formaldehyde is present it checks the development of lactic acid. After a lapse of time formalin in milk not only ceases to respond to chemical tests, but also loses its preservative powers, thus indicating that in all probability it undergoes some fundamental change.

11. **Mussel Poisoning.**—Rolfe reports two cases of poisoning by mussels, one of which proved fatal. The principal features were: (1) The difficulty of eliminating the poison from the system, the gut appearing paralyzed; (2) the tendency to syncope on sitting up; (3) the afebrile course; (4) the comparatively slow pulse; and (5) the markedly good effect of coffee on the pulse and general condition.

12. **Basal Meningitis.**—Emery reports three fatal cases of basal meningitis, in all of which a hitherto undescribed organism was found in the exudate—alone in two cases, and associated with the tubercle bacillus in the third. The morphology of the organism varied widely—from cocci and diplococci to bacilli with marked polar staining. There was no spore formation and the organism did not stain with Gram's method.

Proceedings of Societies.

AMERICAN SURGICAL ASSOCIATION.

Twenty-fifth Annual Meeting, held in St. Louis on June 14, 15, 16, and 17, 1904.

The President, Dr. N. P. DANDRIDGE, of Cincinnati, in the chair.

The President's Address.—Instead of bringing before the association some topic based on his own work, or attempting a discussion of some subject of active interest, the president spoke of the life and exploits of a pioneer doctor, Antoine François Saugrain de Vigni, who was born in Paris, February 17, 1763.

What Are the Minimum Requirements for Aseptic Surgical Operations?—This subject was discussed with great minuteness by Dr. GEORGE H. MONKS, of Boston.

Minimum Requirements for Aseptic Operating in a Hospital in Which the Personnel of the Operating Room is Permanent.—Dr. A. J. OCHSNER, of Chicago, pointed out the fact that with a permanent personnel a definite system could be developed, which was most satisfactory, because the observations which suggested changes as well as those which confirmed satisfactory methods could be carried through a large continuous series of cases under unchanged external conditions. The author gave a detailed account of the system followed by him and his assistants at the Augustana Hospital, where he had had an opportunity to develop uniform methods with permanent conditions during a period of fifteen years. The author also discussed drainage and irrigation. Stress was laid upon the danger which arises from tying sutures too tight, thus causing pressure necrosis, which favored the development of microorganisms accidentally introduced. The method of selecting assistants and nurses was described and a table illustrating the manner in which each assistant recorded the progress of the wounds under his care was appended.

Dr. CHARLES HARRINGTON, of Boston, read a paper, by invitation, in which he detailed his studies in asepsis, after which the three papers were discussed jointly.

Dr. DE FOREST WILLARD, of Philadelphia, said there could be no doubt that a hospital which had permanent assistants, permanent nurses, was the one that was likely to secure the best results from operative procedures on the patients under its care.

Dr. CHARLES B. NANCREDE, of Ann Arbor, Mich., emphasized two points, one of which was inhibition, and the other tissue resistance. A germ might be inhibited to the point that would render it safe in a given wound.

Dr. JOHN E. OWENS, of Chicago, stated that different results were reported by different surgeons after using the same methods, and he had often wondered whether some of them might not have been due largely to the habits of surgeons.

Dr. W. W. KEEN, of Philadelphia, spoke of his own method and the results which he had obtained by some experiments. He had adopted for several years past for the cleansing of his hands a method which was first directed to the attention of the profession by Weir—namely, the use of chlorinated lime and carbonate of sodium. Every person who took an active part in his clinic had a culture attempted from under the thumb, or at the roots of one or two finger nails, and from the free surface of the skin. During the last winter there were 213 cultures attempted from the hands of himself and his assistants in the clinic at Jefferson. Of this number, there were only three cases in which any culture was obtained. This made practically a sterility of 97 per cent., and an infectiousness of 3 per cent. There was but one person who was free at every clinic, and that was the head nurse, who was a permanent official in the operating room. All the other nurses, and all the assistants, except his principal assistant, changed every three months.

Dr. W. B. COLEY, of New York, did not believe sufficient stress had been laid upon sterilization of the skin, and although some authorities maintained it could be done properly in a few moments before an operation, his experiments showed that with careful preparation the day before, in addition to what was done on the day of the operation, sterilization of the skin even then could not be said to be perfect. In 250 cases in which he had examined portions of the skin or Reverdin grafts, taken from the field of operation immediately before, 25, or 9 per cent., had shown all kinds of cultures, some of them being staphylococcus and streptococcus. Carefully sterilizing the hands, using tincture of green soap, applied carefully, brushing, and hot water, then washing the hands thoroughly with 95 per cent. alcohol, with the use of rubber gloves, would give as good results as any of the measures which rendered the hands very hard.

With reference to primary union, an important element in aseptic surgery was to guard against the bruising of tissues.

A Clinical Review of Forty-six Operative Cases of Duodenal Ulcer.—This was the title of a joint paper by Dr. CHRISTOPHER GRAHAM and Dr. WILLIAM J. MAYO, of Rochester, Minn. The authors stated that a careful history was of prime importance. The leading symptoms in the forty-six cases reported were: 1. Pain, which might be due to peritonitis, distention from gas formation, pyloric spasm, and the irritation of acid gastric contents on an open ulcer. The pain might come on in paroxysms or last for some hours. 2. Vomiting, principally of sour, bitter liquids, or if obstruction supervened, of food after varying intervals. 3. Gastric insufficiency from interference with drainage. There were usually hyperacidity of the gastric contents, constipation, and a great desire for food, although the patient reduced the diet and ate often a small quantity, but might fail to get the relief sometimes obtained in gastric ulcer proper. In latent cases evidences of blood in the fæcal movements might be the only sign. Differential diagnosis from pyloric ulcer in some cases might be impossible. A considerable number of cases closely resembled gallstone disease, and often a distinction could not be made. But both conditions were purely surgical, and the distinction in many cases must be made on the operating table. The proneness of duodenal ulcer to perforate was greater than that of the gastric, but it was more often safely protected by adhesions. Relatively sterile contents were also favorable. In all cases the ulcer was situated in the first two inches and a half below the pylorus, and entirely above the entrance of the common duct of the liver and pancreas, with its alkaline secretion, showing the effect of the gastric juices on the duodenal wall. In all doubtful cases of distinction between duodenal ulcer, pyloric ulcer, and gallstones, the authors recommended making an incision through the right rectus muscle an inch to the right of the median line. Gastroenterostomy best met the indications, in that it diverted the gastric contents. In acute perforation suture was recommended, with suprapubic drainage, with after treatment, and exaggerated Fowler's position.

Dr. E. WYLLYS ANDREWS, of Chicago, had seen several cases in which a marked hyperplasia, patches of exudate, with thickening of the wall of the duodenum, ulceration of the first inch and a half of the duodenum connected with a similar condition of the pylorus, had produced such a degree of thickening that clinically at the time of operation it was indistinguishable from carcinoma. In one such case the operation, which was a McGraw elastic ligature gastroenterostomy, left him in a dissatisfied state of mind, as he feared he would have done a more radical operation, and yet in this particular case it was his fortune to do a second operation for obstruction a year after the first one, and he found, very much to his surprise, absolute disappearance of the thickened massive wall which had formed in the first place and simulated carcinoma.

Dr. JOHN B. MURPHY, of Chicago, said the practical lesson taught by the paper was the frequency of occurrence of ulcer of the duodenum, which was not recognized, and was not distinguished from gastric ulcer or gall bladder disease, whether it was of infective or of stone origin.

Dr. ALEXANDER HUGH FERGUSON, of Chicago, mentioned one case in which he did pylorectomy, removing the end of the pylorus and a portion of the duodenum, with an excellent result. He asked Dr. Mayo whether he had outlined for himself the class of cases in which he would do posterior gastroenterostomy, also the class of cases in which he would do gastrojejunostomy, or Finney's operation.

Dr. MAYO, replying to the remarks of Dr. Ferguson, said he did not know that they had ever tried to excise any of these ulcers, except in connection with Finney's operation. They were irregular and thick; they led to large vessels close to the common duct, and it was difficult to get a good stump. He thought the best thing to do was gastroenterostomy, which would afford at least temporary relief, but the gastroenterostomy opening was very likely to contract, so that food would after a time continue to pass down over the duodenal ulcerated surface, and sometimes these patients would return for a second operation.

Regeneration of Bone.—Dr. GEORGE BEN JOHNSTON, of Richmond, Va., reported seven cases of complete removal of the shaft of the tibia, with restoration of the bone.

Remarks Upon Certain Unavoidable Postoperative Calamities in Abdominal Surgery.—Dr. Maurice H. Richardson, of Boston, read a paper on this subject, which was based upon his experience more especially in abdominal surgery, and related exclusively to fatal cases. Four classes of calamities were considered: 1. Suppression of urine. 2. Inexplicable deaths, with symptoms of local and general sepsis, but without any detectable bacterial source. 3. Uncontrollable capillary hæmorrhage. 4. Pulmonary embolism. Suppression of urine could be regarded as an unavoidable accident only when it took place after the urine had been shown to be normal by the most searching study. The influence of ether alone in causing suppression after operations was not regarded as sufficient and as the sole cause of this calamity. It was doubtless true that failure of the kidneys to perform their function properly was due to some pathological change in the secreting substance; if not a pathological change, a tendency to glomerular irritation or real inflammation, but a change or tendency which could not be detected beforehand. Such suppression of urine, however, might be prevented by the avoidance of all but imperative operations whenever there was the least evidence of renal disease, especially an insufficiency in the elimination of urea. Renal suppression was not believed by the writer to be the result of etherization alone. In certain very rare instances death had taken place after abdominal operations without any pathological cause whatever. In one illustrative case, after an aseptic, though difficult and bloody, operation, the patient presented the typical clinical picture of fatal general peritonitis. The pathologist at the Massachusetts General Hospital could find no evidence whatever of bacterial infection at the autopsy or in the laboratory. That there was an infection the writer had no doubt, but by a germ which produced none of the usual physical signs of sepsis, which failed to grow on ordinary media, and which was not stained by the ordinary reagents. Uncontrollable capillary oozing might be regarded as unavoidable and beyond the power of prediction only when it took place after careful examination of the blood with reference to its coagulability and other possible evidences of a tendency to bleed. Capillary hæmorrhage from jaundice might be in certain instances uncontrollable. It could be regarded as uncontrollable only when an operation was performed in spite of the evidence of the tendency to hæmorrhage. The author's last fatal hæmorrhage in jaundice took place from the capillaries of the lesser curvature of the stomach, remote from the operation area, though the blood coagulation tumor was perfectly satisfactory. In another case a fatal and uncontrollable capillary oozing followed an operation upon the common duct after a year of biliary fistula. In this case no bile had entered the intestine during the existence of the biliary fistula. The most frequent of such rare calamities was sudden death from pulmonary embolism. The cause of death could be neither predicted nor prevented. It occurred with no peritonitis. The probability of embolism being the result of phlebitis was considered. In the author's experience, in a considerable number of deaths there were no premonitory symptoms whatsoever, while in cases of phlebitis, definite and unmistakable, no such accident occurred. Pulmonary embolism had been observed most frequently after pelvic operations upon women with large uterine or ovarian tumors, and especially women long exsanguinated by fibroids.

Papillary Cysts and Papillary Tumors of the Ovaries, With Considerations of Prognosis and Treatment.—Dr. Samuel Pozzi, of Paris, France, read a paper with this title, in which he summarized as follows:

"1. Papillary tumors of the ovary, cystic or solid, must not be considered as always malignant. Some of these tumors never undergo malignant degeneration, and do not relapse after removal. Some relapse after a long time, and locally without metastases.

"2. A careful distinction must be made between carcinomatous generalization, which takes place through the lymphatics and blood vessels, and simple grafts which result from contact or from the growing over the peritonæum of detached papillary vegetations of the ovary. This process is benign and can be compared to the grafting of papillomas and warts of the skin.

"3. Some of these tumors undergo a malignant degeneration which is for some time limited, but may later extend all over the mass, and at last brings on a real generalization with cancer metastases. Before this last period, and at the outset of the malignant transformation. it is quite impossible to discern it with the naked eye, and microscopical investigations are needed. The prognosis is always uncertain in operations of this kind before a thorough pathological examination. Even such examination may lead to misinterpretation, if it has not been carried all over the tumor, for the degeneration may be limited to a small part of the growth.

"4. When positive symptoms of malignancy are absent. such as cancerous cachexia or visceral metastases, operators must always treat these tumors as if they were benign, and proceed to remove the neoplasm to the largest extent possible. The disseminated growths, or even small parts of the papillary tumor detached and lost in the peritoneal cavity, may disappear. In other cases they may be the origin of local recurrence. But these relapses can be treated successfully by secondary operations.

"5. Frequency of successive invasion of both ovaries by papillary tumors furnishes an indication to remove the annexa on both sides, even if on one side they are still healthy, at least in women who are near the change of life. In young women it would be better to preserve a non-diseased ovary.

"6. In bilateral papillary tumors the operative technics can be greatly improved by performing partial or total hysterectomy, according to the case.

"7. Drainage is not necessary when the cysts have no outside vegetations, and when there is no ascites. But in case ascites has existed for some time, it would be well to drain the peritoneal cavity. Incomplete removal, or even an exploratory section, in 'inoperable' cases, is often accompanied by a real diminution of ascites, with local and general improvement."

Ankylosis Treated by Arthroplasty, Clinical and Experimental.—Dr. JOHN B. MURPHY, of Chicago, mentioned three types of ankylosis: Ankylosis from periarthritis, ankylosis from capsular lesions, and bony ankylosis. He said that bony ankylosis could be relieved. Tissue could be interposed to prevent the reestablishment of bony union, and with the recognition of the changes which occurred in fat close to the aponeurosis, a joint could be produced with a serous secreting surface. His experimental work had shown that after the removal of the hip joint in a dog, cartilage, synovial membrane, and the articular surfaces in their entirety, with replacement of tissue in the acetabulum and replacement of bone, he had produced a typical synovial membrane in the sense of a hygroma. In the production of hygroma pressure on fatty tissue had a tendency to bring about a coalescence of the small fatty capsules. These capsules produced a serous secretion, and there was developed a condition which was seen in housemaid's knee, over the trochanter of the boiler maker, and over the wrist of the stone cutter. A serous secreting surface was brought about. This could be done in a joint. The surgeon could restore joints to practically their normal condition.

The first case he reported was one of bullet wound of the abdomen. The bullet passed in a little to the right of the median line, crossed the abdomen, perforating the intestine eight times, fractured the head of the femur, lodged in a pocket, remained there for a time, worked its way out through ulceration, and was finally voided through the intestine. The wounds in the intestine were sewed up, and the patient recovered with a sinus. After this the speaker saw the patient with ankylosis of the leg at right angles. He passed around a skiagraph which showed bony union. After removing the head of the femur transperitoneally, curetting, and removing the bony débris from the ilium, the wound was allowed to heal, and a plan was devised for the restoration of the joint and the relief of deformity. He decided that it was necessary, first, to expose the joint and to secure bony tissue for the new head. Second, it was necessary to interpose between the fragments not only muscle, but fascia, covered with fatty tissue, because the fatty tissue here, subject to pressure, like the fascia lata of the trochanter, formed hygromata. A U shaped flap was made, carrying with it fascia lata and all the superficial tissue of the skin, then the joint sawed from around the trochanter major. None of the muscles was divided. A circular chisel was used to cut out the bone in all directions, and with the assistance and leverage of the femur and chisel a fracture was produced at the base of the cavity, and the head, which was new bone formation, as the original head was removed, was thrown out in connection with the neck, rounded off with bone-cutting forceps, and the curette was used to enlarge the cavity. The next step of the operation was to separate the fascia lata with its fat and a few fibres of the glutæus muscle; a flap was swung in behind the muscular attachments, and the trochanter major put in around the head of the femur and sewed to the neck. The neck was made short to prevent reunion of the fibrous portion of the capsule which remained, because if the capsule remained in its fixed position, the ankylosis would continue, and this was one of the practical points derived from this particular case. The trochanter major was sutured to the neck, the head replaced, the trochanter major rounded off, the flap turned down, and the wound drained. The result of the operation was ideal. Dr. Murphy passed around a photograph showing the patient as he stood in the erect position, and the degree of flexion obtained at the end of four months after operation. The patient now had perfect motion. He mentioned other cases in which he had operated by this method with gratifying results. The method was largely intended for the treatment of joints with ankylosis.

(To be concluded.)

Library of the University of Maryland School of Medicine.—The friends and alumni of the University of Maryland will be gratified to learn of the successful revival of this important department of the university's work. The ninety-first annual report, just presented to the faculty of Physic, shows encouraging growth and interest during the year just closed. Eight hundred and fifty-two volumes were added, besides a large number of pamphlets, journals, pictures, etc. It is impossible, as yet, to give the exact number of volumes in the library, as a large part of them is still packed away in drawers in the museum, but the number may be fairly estimated at 4,500, with 3,000 pamphlets. Twenty-five journals are regularly spread upon the tables. About 2,000 books have been entered in the new card catalogue.

The receipts for the year were $82.74 and expenses the same. The membership now includes two honorary members, and fifty-five university members. Fifty-seven books were taken out upon loan by thirty of the latter. There are no restrictions upon the use of the books and journals during the library hours; all persons are then cordially welcome. The loan of books is restricted to the period from 12 to 1 p. m.

Attention is called to the following from the Rules for the Government of the Library: "III.—Membership shall be of three classes: First—*Honorary*, including those who shall contribute not less than $5 annually; second—*University*, including students in attendance and all those connected with the school as teachers or assistants; third—*Active*, including persons not belonging to the above classes, who shall pay annually the sum of $2."

The collection is in some departments well up to date, and two of the finest private collections in the city will come to the library upon the death of their owners. The lectures on the History of Medicine will be delivered during the session of 1904-5, on Saturdays, at 9 a. m., commencing October 8th. Eugene F. Cordell, M. D., Honorary Professor of History of Medicine and Librarian.

Book Notices.

The Clinical Study of Blood Pressure. A Guide to the Use of the Sphygmomanometer in Medical, Surgical, and Obstetrical Practice, with a Summary of the Experimental and Clinical Facts relating to the Blood Pressure in Health and in Disease. By THEODORE C. JANEWAY, M. D., Lecturer on Medical Diagnosis, University and Bellevue Hospital Medical College, and Visiting Physician to City Hospital, New York city. New York and London: D. Appleton & Co., 1904. (Price, cloth, $3.00.)

It has been the aim of the author to collect and formulate our knowledge of the physiological and pathological causes for variation in blood pressure and to present his own investigations of this important subject. The use of the sphygmomanometer is likely to become much more general, because, as the author states, accuracy of observation is the first step toward a correct diagnosis, without which nothing but bold empiricism is possible.

The consideration of the subject is divided into three parts—physiological, technical, and clinical. The physiological part includes a reference to the direct measurement of blood pressure by the mercurial manometer and a description of the general features of blood pressure in the normal animal, as well as the influence of certain factors on such pressure.

The technical part refers to the fallaciousness of information obtained by palpation of the pulse, gives credit to von Basch, of Vienna, as the first to perfect a sphygmomanometer, and explains why none of the instruments introduced prior to 1896 possessed the essential requirements of reasonable accuracy, freedom from subjective errors, ease of application, and portability. The several kinds of modern sphygmomanometers are described and illustrated.

In the clinical part the normal limits and the influence in different individuals of age, sex, occupation, size and temperament on blood pressure, as well as the blood pressure variations in the same individual because of the influence of posture, sleep, meals, alcohol and tobacco, psychical states, muscular exertion, external temperature and baths, atmospheric pressure, and menstruation are first described. The author then considers high and low blood pressure, the relation of the latter to pulse rate and temperature, and its value as a guide to functional ability of the heart and the adequacy of the circulation. Attention is invited to the fact that abnormally low blood pressure must lead to an accumulation of blood in the veins, which, if progressive, will slow the arterial current, affect the capillary circulation and the nutritive and secretory processes dependent on it, and result in death.

The chapters on the blood pressure in various diseases and in surgical operations contain matter of much interest. Experimentally digitaline and strychnine were found to be the best therapeutic agents to increase the pressure; alcohol was without constant effect, though repeated small doses gradually augmented tension; saline infusion as a stimulant is worthless, though it may increase the blood volume.

From this summary it will be seen that the author has made a most interesting contribution to the literature of an important subject that must receive more general professional attention.

A Textbook of Mechanotherapy. (Massage and Medical Gymnastics) for Medical Students, Trained Nurses, and Medical Gymnasts. By AXEL V. GRAFSTROM, B. Sc., M. D., Attending Physician to the Gustavus Adolphus Orphanage, Jamestown, N. Y. Second Edition, Revised, Enlarged, and Entirely Reset. Fully Illustrated. Philadelphia, New York, London: W. B. Saunders & Co., 1904. Pp. 200. (Cloth, $1.25.)

This booklet is an excellent epitome of the more practical side of mechanotherapy, and the fact that a second edition is so soon called for shows that its usefulness is appreciated. Mechanotherapy should be a part of a nurse's training, and if only that which is essential were retained, it would impose no undue burden to acquire it. As an effort toward the simplication of a useful therapeutic means this little work is to be commended.

Kompendium der Röntgen-Therapie. Von Dr. H. E. SCHMIDT, Assistant am Universtät-Institut für Lichtbehandlung zu Berlin. Mit 22 Abbildungen. Berlin: August Hirschwald, 1904.

In this little pamphlet of sixty-two pages the author gives a most excellent account of the construction and operation of x ray apparatus. This is, of course, very far from being exhaustive, but the underlying principles are brought out in such a way as to offer suggestions of value to the most experienced as well as to the beginner.

An account is also given of the development of Röntgen therapy, x ray dermatitis, the technics adopted by various operators (differing as to strength, duration, and frequency of application), and a discussion of the conditions in which this treatment is indicated. These are stated to be favus, sycosis, trichophytosis, hypertrichosis, rodent ulcer, carcinoma, warts, eczema, psoriasis, acne of a keloid type, furunculosis nuchæ, acne vulgaris, lupus erythematosus, and sarcoma. The author's technics consists in a single application of sufficient strength to cause loss of hair upon the surface treated, but without inducing inflammation of the skin; then waiting ten days and repeating the application if necessary. This, it will be seen, differs from the method usually employed here, that of weaker applications frequently repeated.

BOOK AND MAGAZINE NOTES.

Mr. Francis L. Wellman has written for the new edition of The Art of Cross Examination, which the Macmillan Company will publish this fall, five additional chapters. One of these contains the cross examination in the Guiteau trial; and a very amusing chapter details the cross examination of Russell Sage by Chauncey M. Depew. Fallacies of Testimony is an important new chapter; but the most striking new matter is the cross examination of Miss Martinez in the famous breach of promise case. The material in Mr. Wellman's book will be nearly doubled in the new edition.

Dr. George Sigerson is probably the busiest medical man in Dublin, and he is one of the greatest of living Irish scholars as well. More than that, he is a leading writer, a powerful land reformer, a translator of the old Gaelic tongue into modern verse, and an original poet of great power and charm. Examples of his more important works are to be found in *Irish Literature*, which has just been published by John D. Morris & Co., of Philadelphia. It contains a complete representation of the work of the foremost Irish writers in prose and verse; giving examples of all that is best, brightest, most attractive, amusing, and readable in their work. The editor is the Honorable Justin McCarthy, M. P., associated with Dr. Douglas Hyde, Lady Gregory, J. J. Roche, and Professor M. F. Egan, with Mr. Charles Welsh as managing editor.

The mythology, legends, fables, folk-lore, poetry, essays, oratory, history, science, fiction, travel, drama, humor, and pathos of the Irish race, as expressed in its literature, are brought within of *Irish Literature*, which focuses the whole intellectuality of the Irish people. The use of the imagination is a characteristic and dominant element.

It is extremely interesting from a psychological point of view to note that the rich, full, and elaborate vocabulary of the Irishmen who have written and spoken in English for the last three centuries has its tap roots in the Gaelic of a far off past. This will be at once seen by reading the adjective laden description of the sea, taken from the Battle of Magh Leana, translated from the ancient Gaelic by Eugene O'Curry—almost Homeric in its form and Titanic in its forceful phrasing—and comparing it with the best of Irish-English prose and verse, or even with the literary efforts of any modern Irishmen. The same power of glowing description, the same profusion of cumulative adjectival phrase, the same simple yet bold and powerful imagery, the same rhythmic sense will be found to underlie them all.

BOOKS, PAMPHLETS, ETC., RECEIVED.

Diseases of the Stomach and Their Surgical Treatment. By A. W. Mayo Robson, F. R. C. S., and B. G. A. Moynihan, M. S., Lond., F. R. C. S. Second Edition. New York: William Wood & Co., 1904. [Cloth, $4.25.]

An Index of Symptoms, as a Clew to Diagnosis. By Ralph Winnington Leftwich, M. D., Late Assistant Physician to the East London Children's Hospital; Author of *Syphonage in the Large Intestine.* Third Edition. New York: William Wood & Co., 1904. [Cloth, $2.00.]

Erfolge Einer Einmaligen Kur in Karlsbad Beim Gallensteinleiden. Eine Studie aus dem Jahre 1903. Von Dr. Franz Fink, Primarius des Allgemeinen Krankenhauses in Karlsbad. Leipzig: F. C. W. Vogel, 1904.

The Practice of Obstetrics. Designed for the Use of Students and Practitioners of Medicine. By J. Clifton Edgar, Professor of Obstetrics and Clinical Midwifery in the Cornell University Medical College; Visiting Obstetrician to the Emergency Hospital of Bellevue Hospital, New York city, etc. Second Edition, Revised. With 1,264 Illustrations, including Five Colored Plates and 38 Figures Printed in Colors. Philadelphia: P. Blakiston's Son & Co., 1904. Pp. xiv-1153.

Miscellany.

Popular Medicine in Scotland.—C. Jarvis contributes an article on this subject to *Presse médicale* for July 28, 1904, in which he reflects that the popular medicine of the present day probably represents the acme of medical science of some bygone age. It is in the county of Fife that the writer has made his investigations and he has borrowed from an article by David Rorie in the *Edinburgh Medical Journal* for June, 1904. Superstition, it appears, is rampant, and the reason given by one peasant for his belief in a certain prescription was that he had had it from an old woman who, when young, had received it from a legless man who traveled about drawn by two black dogs. The old woman is a power in the county and woe to the young physician who ventures to suggest forceps in an obstetric case in which she is officiating as nurse. Interfere with Nature, indeed!

The beldame's knowledge is not confined to midwifery. In a case of a "poisoned arm," unsuccessfully treated by a surgeon, she obtained a rapid cure by applying the still warm flesh of three young puppies, eviscerated for the purpose, to the affected member.

A boy was discovered who took regularly a teaspoonful of water in which a mouse had been boiled; this decoction is specific in the treatment of enuresis. If the patient does not fancy the liquid, good results may be obtained by decapitating a mouse, roasting the body, and pulverizing it, the powder being administered.

Sulphur is a remedy for rheumatism. It may be sewn into the garter, placed under the pillow, or sifted into the stockings. There are other uses of sulphur. For skin eruptions in babies, sulphur in the great Scotch panacea—whiskey—is given internally. This "brings out the rash." To "cleanse the blood," sulphur and cream of tartar, preferably in molasses, are highly recommended in the spring.

Snails, in pulmonary affections, have been used everywhere. The Scotch method is to place a handful of them with an equal quantity of salt in a flannel bag. An oil is rapidly formed which is given internally.

As regards contagion, the Scotch of Fife have their own philosophy. If a disease was catching, they reason, why would the first victim still remain sick? The cowardly are particularly susceptible to contagion, fear corrupting the fluids of the brain, which rapidly flow through the organism.

Less harmless superstitions are that measles, scarlatina, and whooping cough are mere annoyances inevitable to childhood. "Measles must never be wet," is an axiom accountable for an unbelievable state of dirt in unfortunates afflicted with that disease.

Old people are believed to be immune to disease and to them is, therefore, accorded the rôle of nurses and attendants to the sick.

The widespread belief in the cure of venereal disease by communicating it to another is found in Fife. Hence a temptation to rape and seduction.

It is bad to feed a disease. There is antagonism between disease and evil and no one knows whether any given food or drug will aid the former or the latter. This belief tends to simplify the local pharmacopœia, but has grave results in such a case as a severe fever where cold water is denied the patient.

Water, as a matter of fact, is considered to be a dangerous agent. It is never allowed to the parturient woman, because it renders her liable to all the complications of the puerperium. Laborers never wash the back or the knees for fear of incapacitating themselves for hard work. Life near the water side is supposed to favor dental caries.

This hydrophobia does not tend to decrease the use of whiskey. Change of water is most dangerous and the parlous fluid can be drunk with safety only when invariably drawn from the same well; otherwise distressing consequences, particularly boils, will ensue.

It is recognized, however, that boils only attack the robust. Lice, too, prefer a hardy host and a mother will transfer these parasites to the head of an unhealthy child to strengthen him.

Official News.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the week ending August 26, 1904:

Smallpox—United States.

Place.	Date.	Cases.	Deaths.
Georgia—Macon	Aug. 13-20	1	
Illinois—Chicago	Aug. 13-20	6	
Louisiana—New Orleans	Aug. 13-20	2	
		Traced to importation.	
Michigan—Grand Rapids	Aug. 13-24	1	
Missouri—St. Louis	Aug. 13-20	2	1
Pennsylvania—Philadelphia	Aug. 13-20	1	
South Carolina—Charleston	Aug. 13-20	1	
Tennessee—Nashville	Aug. 13-20	2	

Smallpox—Insular.

Place.	Date.	Cases.	Deaths.
Philippine Islands—Manila	July 2-9	1	

Smallpox—Foreign.

Place.	Date.	Cases.	Deaths.
Africa—Cape Town	July 8-16		1
China—Shanghai	June 25-July 16		6
France—Paris	July 30-Aug. 6	12	1
Great Britain—Glasgow	Aug. 6-12	9	
Great Britain—Leeds	Aug. 6-13	2	
Great Britain—London	July 30-Aug. 6	2	1
Great Britain—Manchester	July 30-Aug. 6		1
Gt. Britain—Newcastle-on-Tyne	July 30-Aug. 6	5	
Great Britain—Nottingham	July 23-30	1	
India—Bombay	July 19-26		5
India—Calcutta	July 9-16		1
Italy—Palermo	July 23-Aug. 6	31	15
Mexico—City of Mexico	July 31-Aug. 7	3	1
Russia—Moscow	July 23-30	13	2
Russia—St. Petersburg	July 23-30	5	1
Russia—Warsaw	July 8-16		27
Spain—Barcelona	Aug. 1-10		9
Turkey—Constantinople	July 31-Aug. 7		2

Yellow Fever.

Place.	Date.	Cases.	Deaths.
Ecuador—Guayaquil	July 20-27		7
Mexico—Coatzacoalcos	Aug. 6-13	2	1
Mexico—Merida	July 31-Aug. 13	2	2
Mexico—Tehuantepec	July 31-Aug. 13	5	4
Mexico—Vera Cruz	Aug. 6-13	5	1

Cholera.

Place.	Date.	Cases.	Deaths.
India—Bombay	July 19-26		1
India—Calcutta	July 9-16		7

Plague—Insular.

Place.	Date.	Cases.	Deaths.
Hawaii—Hilo	Aug. 19		1
Philippine Islands—Manila	July 2-9	1	1

Plague—Foreign.

Place.	Date.	Cases.	Deaths.
Africa—Cape Colony	July 9-16	1	
Brazil—Bahia	June 16-July 24	24	10
Egypt	July 16-23	16	8
India—Bombay	July 19-26		57
India—Calcutta	July 9-16		5
Mauritius	May 6-June 16	8	7
Peru—Lima	July 16-30	15	7

The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the week ending September 2, 1904:

Smallpox—United States.

Place.	Date.	Cases.	Deaths.
Dist. of Columbia—Washington	Aug. 20-27	1	
Illinois—Chicago	Aug. 20-27	6	
Louisiana—New Orleans	Aug. 20-27	12	
Massachusetts—North Adams	Aug. 20-27	10	
Missouri—St. Louis	Aug. 20-27	3	
Ohio—Cincinnati	Aug. 19-26	1	

Smallpox—Insular.

Place.	Date.	Cases.	Deaths.
Philippine Islands—Manila	July 9-16	1	1

Smallpox—Foreign.

Place.	Date.	Cases.	Deaths.
Brazil—Rio de Janeiro	July 17-24	196	100
France—Paris	Aug. 6-13	7	1
Great Britain—Dublin	Aug. 11-18	3	
Great Britain—Glasgow	Aug. 12-19	6	
Great Britain—Liverpool	Aug. 6-13	1	
Great Britain—London	Aug. 6-13		1
Great Britain—Nottingham	July 31-Aug. 6	2	
India—Bombay	July 25-Aug. 2		8
Italy—Palermo	Aug. 6-13	8	3
Japan—Nagasaki	July 21-31	1	
Mexico—City of Mexico	Aug. 7-14		1
Russia—Moscow	July 31-Aug. 6	18	6
Russia—Odessa	Aug. 6-13	2	1
Russia—St. Petersburg	July 31-Aug. 6	12	4
Turkey—Alexandretta	July 31-Aug. 6		6

Yellow Fever.

Place.	Date.	Cases.	Deaths.
Brazil—Rio de Janeiro	July 17-24	3	1
Ecuador—Guayaquil	July 13-20		2
Mexico—Merida	Aug. 14-20	2	
Mexico—Tehuantepec	Aug. 14-20	1	

Cholera.

Place.	Date.	Cases.	Deaths.
China—Hongkong	July 16-23	2	2
India—Bombay	July 25-Aug. 2		23
India—Calcutta	July 16-30		15
Persia—Teheran	July 16-23	600 deaths daily.	
Turkey—Bagdad and vicinity	July 7		320
Turkey—Muttra	July 12	Present.	
Turkey—Oman	July 12	Present.	

Plague—Insular.

Place.	Date.	Cases.	Deaths.
Hawaii—Honolulu	Aug. 22		1
		1 death on S. S. *Coptic.*	
Hawaii—Honolulu	Aug. 23		1

Plague—Insular.

Place.	Date.	Cases.	Deaths.
Brazil—Bahia	June 16-Aug. 5	30	11
Brazil—Rio de Janeiro	July 7-24	1	1
China—Amoy	June 25-July 16	Estimated	45
China—Hongkong	July 16-23	25	25
Egypt	July 23-30	17	8
India—Bombay	July 25-Aug. 2		55
India—Calcutta	July 16-30		12
Japan—Formosa	July 16-30		55
Peru—Lima	July 9-16	7	2

Public Health and Marine Hospital Service:

Official List of Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the Public Health and Marine Hospital Service for the six days ending August 31, 1904:

Anderson, J. F., Passed Assistant Surgeon. Directed to proceed to Philadelphia, Marietta, Conewago, and Swiftwater, Pa., for the purpose of inspecting certain manufacturing vaccine virus and diphtheria antitoxine establishments. August 30, 1904.

Clark, Taliaferro, Passed Assistant Surgeon. Bureau letter of August 5th, granting leave of absence for one month from September 15, 1904, amended to read "one month from August 23, 1904."

Cofer, L. E., Passed Assistant Surgeon. Directed to proceed to Hilo, T. H., for special temporary duty. August 24, 1904.

Cook, B. J., Acting Assistant Surgeon. Department letter of August 6, 1904, granting Acting Assistant Surgeon Cook leave of absence for ten days from August 3, 1904, amended so that said leave shall be for seven days only.

Gibson, R. H., Pharmacist. Granted leave of absence for thirty days from September 7, 1904.

Greene, Joseph B., Passed Assistant Surgeon. To report to Surgeon P. M. Carrington, Fort Stanton, N. M., for duty and assignment to quarters. August 27, 1904.

Herty, F. J., Pharmacist. Relieved from duty at Boston, Mass., and directed to proceed to Washington, D. C., for duty in the Hygienic Laboratory. August 26, 1904.

Hunter, S. B., Acting Assistant Surgeon. Granted leave of absence for seven days from August 29, 1904.

Keen, W. H., Pharmacist. Directed to proceed to Boston, Mass., and report to the Medical Officer in Command for duty and assignment to quarters. August 26, 1904.

Marr, Harrington, Acting Assistant Surgeon. Granted leave of absence for fourteen days from August 22, 1904.

Miller, Charles, Pharmacist. Granted leave of absence for three days. August 29, 1904.

McMullen, John, Passed Assistant Surgeon. Granted extension of leave of absence for fifteen days from September 5, 1904.

Neves, George, Pharmacist. Relieved from duty at Chicago, Ill., and directed to proceed to Ellis Island, N. Y., and report to Surgeon G. W. Stoner for duty and assignment to quarters. August 27, 1904.

O'Reilly, W. J., Acting Assistant Surgeon. Granted leave of absence for four days from August 23, 1904.

Owen, H., Acting Assistant Surgeon. Granted leave of absence for twenty-one days from August 16, 1904.

Pettus, W. J., Assistant Surgeon-General. Granted leave of absence for twenty days from September 12, 1904.

Richardson, T. F., Passed Assistant Surgeon. Directed to proceed to Brownsville, Texas, for special duty. August 26, 1904.

Richardson, S. W., Pharmacist. Upon arrival of Passed Assistant Surgeon R. H. von Ezdorf at St. Louis, Mo., relieved from further charge of the Service exhibit at the Louisiana Purchase Exposition and directed to report to Passed Assistant Surgeon von Ezdorf for duty in connection with Service exhibit. August 30, 1904.

Roberts, Norman, Assistant Surgeon. Upon return of Passed Assistant Surgeon B. W. Brown, relieved from temporary duty at Evansville, Ind., and directed to proceed to Fort Stanton, N. M., and report to Medical Officer in Command for duty and assignment to quarters. August 26, 1904.

Rodman, J. C., Acting Assistant Surgeon. Granted extension of leave of absence, on account of sickness, for seven days from August 5, 1904.

Southard, F. A., Pharmacist. Bureau order of August 17, 1904, amended so as to relieve Pharmacist Southard from duty in the Hygienic Laboratory upon arrival of Pharmacist F. J. Herty.

Spohn, A. E., Acting Assistant Surgeon. Granted leave of absence for thirty days from August 20, 1904.

Thomas, A. M., Pharmacist. Directed to proceed to Fort Stanton. N. M., and report to Medical Officer in Command for duty and assignment to quarters. August 26, 1904.

Von Ezdorf, R. H., Passed Assistant Surgeon. Relieved from duty in the Hygienic Laboratory Washington, D. C., and directed to proceed to St. Louis, Mo., and assume charge of Service exhibit at the Louisiana Purchase Exposition. August 29, 1904.

Walkley, W. S., Acting Assistant Surgeon. Granted leave of absence for one day.

Williams, L. L., Assistant Surgeon-General. Leave of absence granted by Department letter of August 15, 1904, for fifteen days from August 18th, on account of sickness, amended to read "leave of absence."

Board Convened.

Board convened to meet at Boston, Mass., for the physical examination of First Lieutenant P. H. Brereton, R. C. S. Detail for the board—Assistant Surgeon W. C. Rucker, chairman; Acting Assistant Surgeon F. H. Cleaves, recorder.

Appointments.

Samuel D. W. Light, appointed Acting Assistant Surgeon for duty at Key West Quarantine Station. August 13, 1904.

Arthur M. Thomas, appointed Pharmacist of the Third Class. August 24, 1904.

Walter H. Keen, appointed Pharmacist of the Third Class. August 24, 1904.

Resignation.

Pharmacist George O. Ferdinand, resigned August 15, 1904.

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending September 3, 1904:

Appel, A. H., Major and Surgeon. Ordered to report in person to Colonel Charles Morris, Artillery Corps, president of the Army Retiring Board, San Francisco, Cal., for examination by the Board.

Ashburn, P. M., First Lieutenant and Assistant Surgeon. Granted thirty days' leave of absence, to take effect about October 1, 1904, with permission to apply for thirty days' extension.

Davis, William T., First Lieutenant and Assistant Surgeon. Ordered to accompany detachment of recruits from Angel Island, Cal., to Vancouver Barracks, Washington, and return to station as surgeon on the transport *Sheridan*, San Francisco, Cal.

Edwards, James P., First Lieutenant and Assistant Surgeon. Assignment to duty at Army Manœuvres, Manassas, Va., revoked.

Havard, Valery, Colonel and Assistant Surgeon-General. Ordered to report to Department Commander, Gainesville, Va.

Patton, I. W., First Lieutenant and Assistant Surgeon. Resignation as first lieutenant and assistant surgeon in the United States Army accepted, to take effect August 25, 1904.

Raymond, Thomas U., Major and Surgeon. Granted leave of absence for twenty days.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending September 3, 1904:

Breck, F. W., Pharmacist. Appointed pharmacist from May 20, 1904.

Flint, J., Assistant Surgeon. Detached from the Naval Hospital, Boston, Mass., and ordered home. Resignation as an assistant surgeon in the United States Navy accepted, to take effect September 6, 1904.

McLean, N. T., Assistant Surgeon. Detached from the Naval Recruiting Station, Buffalo, N. Y., and ordered to the Naval Hospital, New York, N. Y.

Nelson, H. T., Jr., Acting Assistant Surgeon. Ordered to duty at the Naval Hospital, Washington, D. C.

Page, J. E., Passed Assistant Surgeon. Detached from the *Montgomery* and ordered to the *Puritan*, then home, and granted leave for one month.

Snyder, J. J., Passed Assistant Surgeon. Detached from the *Maine* and ordered to the *Kearsarge*.

Births, Marriages, and Deaths.

Born.

Persons.—In Fort Flagler, Washington, on Wednesday, August 24th, to Dr. E. E. Persons, U. S. A., and Mrs. Persons, a son.

Married.

Cochran—Simmons.—In Lake, Indiana, on Wednesday, August 31st, Dr. F. Bruce Cochran and Miss Mary Simmons.

Doyle—Kenny.—In Manistee, Michigan, on Wednesday, August 17th, Dr. C. P. Doyle and Miss Clare Kenny.

Hawkes—Hawley.—In Minneapolis, Minnesota, on Monday, August 29th, Dr. Edward M. Z. Hawkes, of Newark, N. J., and Miss Mary E. Hawley.

Hibbs—Cutting.—In Lenox, Massachusetts, on Thursday, September 1st, Dr. Russell A. Hibbs, of New York, and Miss Madeline Cutting.

Moore—Vredenburgh.—In Freehold, New Jersey, on Wednesday, August 31st, Dr. Albertus Adair Moore, of New York, and Miss Agnes Remsen Vredenburgh.

Parker—Sallee.—In St. Louis, Missouri, on Wednesday, August 24th, Dr. Frederick P. Parker and Miss Alma May Sallee.

Sutcliffe—Thompson.—In San Francisco, California, on Saturday, August 20th, Dr. Henri Harcourt Sutcliffe and Miss Marion Elizabeth Thompson.

White—Bowen.—In Plainfield, New Jersey, on Thursday, September 1st, Dr. Franklin Warren White, of Boston, and Miss Ethel Bowen.

Died.

Clough.—In Kansas City, Missouri, on Tuesday, August 23rd, Dr. George Clough, in the eighty-fourth year of his age.

Cyphers.—In Philadelphia, Pennsylvania, on Sunday, August 28th, Dr. Millard Fillmore Cyphers, in the forty-sixth year of his age.

Elliott.—In Chicago, Illinois, on Wednesday, August 24th, Dr. Levi Westfall Elliott, in the seventieth year of his age.

Enslee.—In Chicago, Illinois, on Tuesday, August 23rd, Dr. Charles L. Enslee, in the forty-fifth year of his age.

Helmer.—In Theresa, N. Y., on Friday, August 19th, Dr. Josiah H. Helmer, in the eighty-fourth year of his age.

Lemly.—In Jackson, Mississippi, on Monday, August 29th, Dr. Byron Lemly.

Lodge.—In Baltimore, Maryland, on Sunday, August 21st, Dr. William J. Lodge, in the seventy-third year of his age.

Simons.—In Glenville, Ohio, on Thursday, September 1st, Dr. E. G. Simons, of Ripley, N. Y.

Sisson.—In Rochester, N. Y., on Tuesday, August 23rd, Dr. Frank M. Sisson, in the fiftieth year of his age.

Tuck.—In Seabright, New Jersey, on Friday, September 2nd, Dr. Henry Tuck, in the sixty-third year of his age.

Wiley.—In Salem, Virginia, on Thursday, August 25th, Dr. Oscar Wiley, in the seventy-fifth year of his age.

Willgohs.—In Akron, Ohio, on Friday, August 26th, Dr. Charles F. H. Willgohs, in the one hundred and first year of his age.

New York Medical Journal
AND
Philadelphia Medical Journal.

A Weekly Review of Medicine

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Lectures and Addresses.

SUGGESTIONS UPON THE MEDICAL COLLEGE LIBRARY.*

By EUGENE F. CORDELL, M. D.,

BALTIMORE,

PROFESSOR OF THE HISTORY OF MEDICINE AND LIBRARIAN, UNIVERSITY OF MARYLAND SCHOOL OF MEDICINE; PRESIDENT, JOHNS HOPKINS HOSPITAL HISTORICAL CLUB; EX-PRESIDENT, MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND, ETC.

Ernst ist das Leben; möchte ich es fühlen.

It may seem paradoxical to assert that the librarian is more important than the library, yet certainly in the conditions to which this brief paper has reference it is often true. For upon him depends, not only its growth, but sometimes even its very existence. Let us suppose that the faculty of a medical college, either from a genuine desire to increase the opportunities of instruction of its students, or for the sake of appearances and the credit to be got from it, decides to found a library, or suppose the idea has entered independently into the mind of some zealous alumnus of the school, it is probable that some 50 or 100 volumes will already be found in the dean's office as a nucleus. The faculty must first be induced to grant the use of some good room or rooms—the best available—and to erect shelving for at least 500 volumes. The next thing for the librarian to do, will be to send out a stirring appeal to all his fellow alumni within a reasonable radius, calling attention to the project and asking assistance by gifts of books, journals, pictures, and money. The immediate response will not be great, but at least nothing will have been lost, and there will be profit in the future by having brought the matter to the attention of those naturally interested. The librarian must hold on to the support of the faculty and stir that body up all he can to a realization of the importance of the work upon which he has entered. Usually one at least of the members of every such body will be found heartily responsive to such an appeal, and his help and influence will be of the greatest value. A set of rules should be drawn up, and, after being submitted to the faculty for its formal sanction, printed and hung up in the library. This gives them more credit in the eyes of the students and renders their enforcement rather easier. These rules should be copied in a blank book and every person using the library should be required to sign his name to them. Such formality will exert a good influence by impressing upon the mind the advantages gained, and will be helpful in enforcing discipline. Occasional notices may be inserted in the journals or newspapers, and annual reports should be issued regularly, in order to keep up the interest. It is the duty of every librarian to keep ever before him, and to carry out to its fullest possible limit, the principle of self help. Hence, in the present instance, he must be alert and work diligently to increase in every way the value of his collection to those who are to use it. Above all, he should endeavor to lay in a store of textbooks for his chief patrons, the students, for this is what they most need. One can always obtain them from members of the faculty and older alumni discarding the older editions. A table of current journals can be made up from periodicals received by the dean through advertisement. There are many ways of adding to the collection of books. Most physicians will readily, with a little persuasion, weed out their libraries, gladly getting rid of what is to them an incumbrance, but to a library a necessity. The Government readily furnishes its publications. Society reports and transactions are available. The libraries have quantities of duplicates, and will be glad to help weaker brethren. The publishers, if appealed to, will often respond with gifts of volumes for the sake of the advertisement. Later, when the collection has grown sufficiently to permit it, application should be made for membership in this association. There is no way, to my knowledge, in which a small sum of money can be used to such advantage, for membership here confers at once dignity and standing, and secures the valuable help of our exchange. Therefore, this should be an aim from the very inception. In some cases a college journal can be added, which serves as a medium of communication and helps to increase the accumulation of books and journals. As sources of revenue should be mentioned the sale of duplicates, books and journals, and of old paper, fines, and membership fees. Membership should be of two classes: honorary, consisting of those who contribute, say, $5 annually; and active. The latter may be further divided into alumni, or other physicians, and students. The alumni members should pay $2 per annum, and the student members $1. It should be made known and understood that all membership fees go exclusively to the purchase of new books. Both classes will much more readily contribute in this way if assured of this disposition of their fees. In regard to the student fee, it is a perfectly just and proper charge. They receive a full quid pro quo for it, and it is enforced in many colleges. Everything should be done to render the rooms attractive, and to reserve them strictly for readers. A quiet situation, southern exposure, abundance of light, and plenty of white paint are all highly desirable, if not essential. An effort should be made to secure pictures of celebrated physicians of the past, of eminent members of the faculty, and of alumni for the adornment of the walls. Photographs of the classes or of their clubs are desirable. Cleanliness is all important, and should be secured by weekly scouring of floors, etc. There should be a thorough annual dusting of shelves and books, which should, of course, be reserved for the dull season—say, August.

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* Read before the meeting of the Association of American Medical Librarians, at Atlantic City, N. J.

I have not yet spoken of the important subject of the catalogue. This is of extreme importance. The utility of any library is in direct proportion to the completeness and perfection of its catalogue. There should be no delay, therefore, in commencing it, and it should be kept up with the growth of the collection. A good modern case and stiff white cards are needed. I do not believe in refining too much in this direction. Such refinement may be confusing, rather than helpful. Simplicity is best. There should be a single catalogue of both author and subject. Every book, pamphlet, and journal, should be entered separately, and by as many cards as are necessary to give full information regarding its contents.

Of course, such a work as this must be very largely a labor of love. It is not likely that it will be pecuniarily a profitable investment of time and effort to the librarian, either at the beginning or later. Therefore, the question of salary is always a subordinate one. One must be willing to take the consciousness of being useful in this world as part recompense. Then there is the delight of the work, for is not our realm

> A substantial world both fresh and good,
> Round which with tendrils strong as flesh and blood,
> Our pastime and happiness may grow.[1]

One must, however, live in this world, and it is probable that, with all his zeal and disinterestedness, the librarian will feel that he cannot give more than one, or at most two, hours a day to his books. It is possible that with the aid of the dean he may be able to secure some assistance from some impecunious student who will be glad to supplement his small resources by a two or three hour daily service in the library. Or, as has recently been suggested to me, members of the classes may be willing to take the duty in turn.

Finally, an idea has occurred to me which I believe will overcome some of the difficulties of salary, and will still further increase the usefulness of the librarian. That is, that to him be given charge of the department of instruction in the history of medicine in the college. He may not be, like St. Jerome, " one of those intellectual natures to which reading and study are as indispensable as daily bread." [2]

But, if he is, as he ought to be, scholarly, studious, inspiring, who better than he can impart instruction in this department, which is destined soon to be appreciated in the medical schools and by the medical profesison as it has not been heretofore?

855 NORTH EUTAW STREET.

New Swedish Hospital for Chicago.—A new hospital has been formally opened on the South Side of Chicago. It is called the Washington Park Hospital, and was erected by the Swedish Lutherans. It is located at Sixtieth Street and Vincennes Avenue, and is a three story brick structure. The dedication ceremonies were held in the open air under the direction of the Sophia Aid Society. The Reverend J. W. Swanbeck gave the dedication address. Assistant State's Attorney Harry Olson and G. B. Anderson addressed the meeting on the afternoon of September 5th. The operating room on the third floor is fitted out with all the needed appliances for modern surgery, and five undergraduate nurses have been taken for a three years' course of training. Miss Hilma Johnson, the head nurse, has had several years' experience as a hospital manager. Dr. O. C. Young, of the Augustana Hospital, is the head physician, and the staff is as follows: Dr. J. B. Murphy, Dr. Frank Billings, Dr. Archibald Church, Dr. William A. Evans, Dr. A. Hakanson.

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[1] Wordsworth.

[2] Schaaf.

Original Communications.

POST MORTEM EXAMINATIONS FOR MEDICOLEGAL PURPOSES.*

By I. L. POLOZKER, M. D.,

DETROIT, MICH.,

LECTURER ON POST MORTEMS AND ASSISTANT TO THE CHAIR OF PRACTICE OF MEDICINE AND DISEASES OF CHILDREN, DETROIT COLLEGE OF MEDICINE.

Post mortems are held for many purposes, ordinarily:

1st. To study pathological lesions in well known diseases, when the diagnosis is known, and we desire to study the different pathological changes that occur at certain stages of the disease.

2nd. When diagnosis is doubtful, and to make a post mortem diagnosis.

3rd. When there is dispute in diagnosis between two or more attending physicians or surgeons.

4th. In cases where it is necessary to protect the family against loss of insurance through disputes that are likely to arise later.

5th. In sudden deaths, to ascertain the cause of death.

6th. In criminal cases to find the cause of death, and, if possible, to place the blame and responsibility.

So a medicolegal post mortem is an examination made for the purpose of ascertaining the cause and kind of death, whether a crime has been committed, and if so, to find a possible motive and the exact method employed by causing death.

As Wayne County physician, the object of my paper is to give you some idea of the work done by us.

For the purpose of showing you how near we come to proper conduct of post mortem examinations, and of explaining why we cannot, in some cases, be as thorough as we should like to be, I will first describe how a post mortem examination for medicolegal purposes should be conducted.

A medicolegal post mortem differs from the pathological, only in that greater precaution is necessary, and that it has to be more thorough. Every organ should be carefully examined, and, if in doubt as to the cause of death, after a thorough examination, a careful chemical and bacteriological examination should be made.

Two cases, illustrated by Cattell in his latest work on post mortems, verify the importance of a complete examination in medicolegal work. In both the cases he cites a fracture of cervical verterbræ, without any external signs of violence, was found, and in each case there was a lesion of the heart which would have been assigned as the cause of death, had not the real cause of death been demonstrated.

Another case in illustration:

A man was arrested and held responsible for the death of his child, due, it was thought, to a beating he had given it. Investigation, however, brought out the fact that the child, through fear of punishment from its father, because of some act of disobedience, had taken arsenic. The whipping was administered later, and when death occurred it was the natural supposition that the child had died from the effects of it. But the post mortem showed that death was due to arsenic, which was found in the stomach.

A post mortem of this kind consists of two distinct examinations:

1st. Examination of scene where the victim was found.

2nd. *(a)* Examination of body externally; *(b)* internal examination, which must be very complete, of all organs and structures of the body.

The coroner should be a physician, and, if he is not, he should never order the body to be removed until the coroner's physician has made an examination and a thorough inspection of the body and its surroundings.

In examining a body at the scene of murder, the position in which it lies should be observed, as well as its relation to surrounding objects; the expression of the face, position of the hands should be noted, and also whether any substance is held in its grasp. Such articles, e. g., hair, cloth, etc., very often correspond with some one suspected, and lead to a clue.

To illustrate the great importance of this, I will cite the case of a young girl, whose dead, raped body was found near a mill. Certain seeds of grain were found on the underclothing of the girl. The miller was known to have been on intimate terms with the girl, and he was arrested. Seeds similar to those on the clothes of the girl were found on his clothing. When confronted with this evidence he broke down and confessed to his guilt.

Notice if the hands are marked with blood, cuts, bruises, or other injuries; the condition of the dress before removing the clothing; the relation of the body to the furniture in the room; glass, medicine, blood, condition of room, carpets, clothing. Take a photograph of the room or place before removing the body from the position in which it was found. Examine the clothing for holes made by weapons, and see if the suspected weapon corresponds with the holes in the clothing. Examine for stains and discharges, and, if such are found, mark the spots with thread, so that they can later be examined by a chemist or microscopist.

Before the second examination is made the physician should:

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* Read before the Wayne County Medical Society, at Detroit, December 3, 1903.

1st. See that the body is dead.

2nd. Identify the body.

3rd. Obtain the history of the case.

4th. Ascertain the name, and aliases, if any.

5th. Photograph the body nude.

6th. Make a thorough examination of all wounds, marks of violence or natural, old scars, tattoo marks, etc.

7th. Compare the instruments supposed to have caused the injuries with the wounds, but without probing.

In the case of Jones, convicted of the murder of Heywood, the wound upon the victim's forehead corresponded in shape and dimensions with the sharp end of the hammer, covered with blood, found in Jones's tool box. In a recent murder, before I had seen the body, I was notified by a reporter that he had already probed the wounds, and it was unnecessary for me to do so!

8th. Not allow embalming.

9th. Note the age, sex, nationality, weight, height, build, color of hair, complexion, etc.

10th. Conduct an internal examination at the morgue.

All authors on legal medicine agree that the examination of a body should be made by daylight; as artificial light is likely to give a different shade to tissues, and so to mask the pathological changes. It should also always be made in the presence of two or more medical men. The defense should be represented by a physician and counsel. All findings (not results) should be recorded by one physician, as dictated by another, so that when such notes are given to a body of medical experts, they will be able to read the pathological findings and make their diagnosis. After the necropsy is finished it should be read over and signed by all medical men present.

Let us see what occurs in Detroit when a murder is discovered. First, a coroner is called, who views the body, and knows no more after examining it than he did before. The body is immediately ordered to his favorite undertaker, and it is moved before a physician or the police have seen it. Then, after considerable handling by different lav people, reporters, undertakers, and sometimes relatives, the coroner's physician is sent for, and the police are notified.

The police, again, instead of going over the scene with a jurist and a medical man when they expect to elucidate the medical questions of the case, and to help them to come to some conclusion as to the way the crime was committed, its purpose and plan, and later to give expert testimony, dispatch the whole detective force to the locality, and what happens? They are in one another's way, and every officer has a different opinion; the detectives are jealous of one another, instead of working in harmony, and try to break every reasonable conclusion arrived at by one side, because of this jealousy.

Every piece of valuable evidence, such as blood, footprints, etc., by which some conclusion or theory could be drawn, is destroyed by the police themselves after their search. What would footprints mean after a dozen or more police officers and reporters had been over the ground? Just take, for example, the case of Alphonse Wilmes, the little four year and a half old boy, whose body was found butchered, with a red handkerchief stuffed in his mouth (which was taken out before I saw him), among moulding boxes in the rear of the Michigan Stove Works, not long ago. The body, after the coroner was called, was sent by him to an undertaker, and handled and looked over by many people before I was called. His clothing and other articles were taken to another place. I did not see his clothing until some time later, and not until it had been considerably handled. Thus I was prevented from being able to give as my opinion whether the different cuts were made while the boy was dressed or not, a material point in that case.

After getting all the particulars, with which you are familiar, I went to the undertaker's morgue, where I was first called, and on examination found a broken neck, a long irregular incision from below the sternum to the pelvis and through the genital organs, very little blood in and around the body, two incisions in both hips, the left wrist cut, an abrasion below the chin and on the neck, as if he had been choked.

After this examination I came to the conclusion that the boy was first choked with the handkerchief and then thrown on to the moulding boxes so violently that the fall broke his neck; that the cuts were made after the boy was dead, and that that was why there was so little bleeding outside—it was all internal hæmorrhage.

In my report I said that I thought the murder was committed at the place where the body was found. My statement at the time was ridiculed. It was said that it could not have been done there, and the only reason given was that it was too small a place for such work to be done in. Careful search and investigation on the part of the police and the newspaper reporters proved later that I was right.

Newspaper men very often do more good work in finding clues and elucidating important points in such cases than do the police, and many times give great aid.

Another case was the Knapman murder, which you all remember. A young man was found in a well known resort, with a bullet wound three inches above the left nipple. He was in bed, covered with bed clothing, and unconscious. On the floor, near the bed, lay a revolver. A few feet away from him, with a bullet wound in her left ear, lay the partly dressed body of a woman, shot while in the act of robing.

In this case the police were called first. Detectives and police officers came in a wagon, so many of them that they fell over each other in the dark hallway of the house. One officer grabbed the revolver and ran away, not paying any attention to the position in which it lay when found (which proved later to be a material point in the case). The officers stumbled over the dead woman, all asking questions at the same time. One fired questions at the women in the house, others trying to get an ante mortem statement from the young man, who told them "that the woman shot him and then shot herself." This information I got from the police officers who were later assigned to the case, and it was corroborated by inmates of the house. When I went to the place the next day with the prosecuting officer to view the room where the murder was committed, what did I find? Every partition broken, room destroyed and furniture taken out, not a thing left to show how the room looked when the crime was committed. From questions put to the inmates of the house as to the position of articles in the room, and especially the weapon, we got as many different answers as there were people in the house. And, to add to the difficulty, there was Knapman, at St. Mary's Hospital, sticking to his statement that the woman shot him. What opinion could you express? From all the evidence we could collect, and the nature of wounds, the prosecutor and myself were convinced that he was telling the truth. And, had it not been for the confession Knapman made later, while under examination by the prosecutor, he could never have been convicted of the crime on the evidence in the possession of the police authorities. Instead of now serving a life sentence in the State penitentiary, he would have been a free man.

I could enumerate many murder cases where, had it not been for confessions or indirect tips from others, the criminals would never have been convicted.

How can we expect anything different from the detective force, so long as it is under the present system? The average detective has no more special ability in his line than any other man. He is not trained by long experience to his work. A citizen is appointed on the police force. After serving a certain time and sleeping on his beat, or talking to servant girls and drinking beer at the back doors of saloons, he is, through his political influence, promoted to the detective force. Here we have a sample of the great sleuth that is expected to ferret out and bring to justice the perpetrators of crimes such as I have just mentioned.

A worse condition of affairs exists in the sheriff's office. The deputy sheriffs, who in the country act in much the same capacity as the city detectives, are a class of civil citizens, who, after election, because of services rendered in a political way, are appointed by the sheriff. It takes them a couple of years to get a little experience. Then a new sheriff is elected, and out they go, to make room for a new batch of would-be crime detectors.

There are, of course, exceptions in both instances. But it is the exception rather than the rule to find men with natural talent for the work in which they are engaged.

There is another phase of this question I wish to touch on. Take abortion cases. "Why are there no convictions in abortion cases?" This question has been asked me very often by members of this society. I will tell you why. It is because we stick to our professional abortionists. Some members of the medical profession will go on the witness stand and testify to anything; make statements that are ridiculous in medicine and surgery, and save these abortionists from prison.

I had a case where a woman died of peritonitis as a result of an abortion, and any number of medical men went on the stand and testified, without seeing the post mortem or the notes. Some of them told the jury that the woman did not die of peritonitis; that the county physician did not know what he was talking about.

And what happens when you try to tell the truth and be honest? Such men will go on the witness stand and absolutely deny and contradict anything you can say, and by their appearances and hypothetical questions, and the citing of the experience they never had, prejudice some members of the jury and get a disagreement or an acquittal. This is why we do not get convictions in such cases.

It is this ridiculous difference of opinion by men who style themselves experts, and testify to just the opposite, that makes medical expert testimony so cheap.

Why should we allow men in our profession who will go on the witness stand and pose as experts on subjects that are foreign to them? Such an authority as a recent writer of New York, in his latest work on legal medicine, says:

"The domain of scientific medicine has expanded so widely of late years, that no single mind can now compass the details of all branches of medical science. The literature of neurology and toxicology, as relative to law have in themselves become voluminous and beyond the grasp of any practitioner of medicine, or any single medicolegal expert."

Gentlemen, I repeat again, why do some men go on the witness stand and pose as experts, when the subject is foreign to them, and make the judge and jury ridicule them?

This is what kills medical expert testimony. If physicians, when on the stand, would tell only what they know, medical experts would be held in higher repute.

Just think how absurd it must be to a broad minded judge, and an up-to-date, well versed jury (something, of course, seldom seen), to have a medical expert testify in some cases of insanity, who has, a short time previously, before the same judge, exhibited his knowledge as an expert in some surgical case!

Why should we differ in court on questions that are known, established facts, and can be answered in only one way?

Another cause for this evil is that some members of the legal profession are always looking for dishonest medical testimony; such as will suit their cases. They don't want men of high standing, known to be honest. No, they are looking for men whom they can tell what to testify, and men who can make grand stand plays to a jury. These same men only laugh at such testimony later.

Another bad habit we medical men have is the giving of opinions off hand. Every day in the week I am asked the cause of a person's sudden death by external examination of the body, and occasion surprise when I say that I don't know; I can't tell without a post mortem. It seems to be a matter for surprise to people that a medical man cannot tell what a person died from by just looking at him. Let me tell you, that it is very seldom that a physician can make any accurate guess.

Now the question is, what can be done to remedy the existing condition?

This society should take the initiative step, go before the legislature, and demand better laws governing medical testimony.

1st. Have a board of medical experts, appointed by the court, on the recommendation of the Wayne County Medical Society.

2nd. Abolish the coroner's court. It is only a drain on the county. Instead, the prosecuting attornev, on recommendation of the medical society, should appoint a physician to investigate sudden deaths.

3rd. Have the board of supervisors make an appropriation for the erection of a suitable building for a county morgue, where satisfactory work could be done by county physicians, instead of as at present doing it as best we can in some badly lighted room in the rear of undertakers' shops.

As I understand it, there has been an appropriation for a county morgue to be fitted up in the basement of the county building. To build a morgue in such a dark place would, in my opinion, be a waste of money. What I should like to see is a separate building, similar to our crematory, built on the outskirts of the city, with a well equipped morgue, like the Ayres Clinical Laboratory in Pennsvlvania—good light, a refrigerator plant, post mortem room, with an up-to-date table, well drained; scales, instruments, photographic outfit, sterilized jars always ready for removal of organs; a chemical laboratory, where all chemical examinations could be made at once; also a microscopical department. Last, but not least, a keeper for the building, who should be an officer, and be held responsible for the proper care of bodies consigned to his keeping, admitting no one to the building but those properly authorized by the prosecuting attorney.

Who watches over our suspected bodies now? Left over night in some undertaker's establishment, what means have we of guarding a suspected poisoning case now from some interested party, who might wish to destroy evidence of the real cause of death? None whatever, and this question alone is one worthy of very serious consideration.

Another evil the county physicians have to contend with in their post mortem work is embalming. Just as sure as there is anything suspicious about a death and the county physicians are ordered to investigate, we invariably find the embalmer has been there ahead of us, whether intentionally or not I cannot say. In cases that are brought into court, this always helps out the defense. It is easy for a lawyer, with the aid of the medical expert, to make a jury believe that a doctor cannot tell the exact cause of death, after embalming has taken place. And it is often so; though fortunately the old arsenical fluids are not used so much now. All embalming fluids contain formalin, which does not interfere with the microscopical study of tissues.

There has been a great deal said in public and in private about the work of the county physicians. I am not here to deny or to defend, but simply to show why better work cannot be done. To you, gentlemen, medical men, and citizens of our county, I appeal and ask you to help us make the post mortem work of Wayne County scientific. We have a board of auditors in our county with whom politics is a second consideration. They want to improve things. I have never yet asked for anything to better our work but they have always lent a willing ear and been ready to do it if possible.

In connection with my office, I can say the same of our prosecuting attorney, a man who is always willing to listen to any suggestions made, who is thoroughly honest, and reliable.

Let me say, in conclusion, that it is absolutely necessary to teach this subject, post mortem work, in our medical colleges, and the only satisfactory way is demonstrating in the dead house. All colleges and universities should have well equipped morgues. A few colleges are realizing that they cannot with credit send out students who have never seen a post mortem, and are taking steps to add this branch of work to their studies.

270 WOODWARD AVENUE.

THE PRESENT CONDITION OF TENONTOPLASTY.

BY PROFESSOR VULPIUS, M. D.,

HEIDELBERG, GERMANY.

(*Continued from page 489.*)

In what way shall we now treat the paralyzed tendons? We may cut them entirely and turn them upward to the power-giver; or we may divide them and only attach a tendon slip to the healthy muscle; or, finally, we may leave them absolutely intact and unite them in some way or other to the healthy tendon. Thus we have, in looking over the different methods, to distinguish three in all: One descending, also called active—passive, or intraparalytic; one ascending, which is also denominated as passive-active, or intrafunctional; and, finally, a reciprocal method.

If we wish to compare the methods critically, we have to do it from both a technical and a physiological standpoint. It is shown that the reciprocal method presents the least favorable condition for sutures, that the ascending one, on the other hand, is little to be recommended with regard to function. What we strive at is the functional new creation of the lost muscle, and we can naturally achieve that only if we transplant the respective tendon, together with part of the muscle which belongs to it. If, however, we simply attach a paralyzed tendon upward to a healthy tendon in the neighborhood, we well may move the paralyzed tendon at the same time with the healthy one. We never shall be able, however, to give to the first an independent motion. Only an exact descending transplantation can produce an independent action. We choose, to this end, as much as possible a functionally kindred muscle, which naturally can understand more easily and perfectly the new work detailed to it, than an antagonist; that, however, under certain conditions very good results can be attained with the latter we shall see later on. In order to make possible a transplantation of functionally kindred muscles, I have occasionally made use of a method called by myself transplantation by *étapes*, which is easiest explained by an example. I do not transplant the flexor digitorum directly into the extensor digitorum, but into a peroneus, and a part of the peroneal muscle into the extensor digitorum. After what we have said before it is clear that we have to carry the split of the tendon well up into the body of the muscle in case of a total transplantation, dividing the latter, if possible, with a blunt instrument, in order not to injure the muscle.

Now we have to transpose the tendons. We do this by probing a canal through the fascia, which enables us to carry our tendon in a direct line to its place of destination. An angular bend in the continuity of the tendon naturally would materially interfere with its power of traction. Occasionally the transposition of tendons has been carried out in the forearm and the leg through the membrana interossea, by dividing the latter; or, better yet, by fenestrating it. The power-giving and the power-receiving tendons having thus been brought into connection, we now have to sew them together, and this suture has to be done under a medium degree of tension, so that after the operation is completed the respective joint is retained in a somewhat median position. Too little tension interferes with the success, and too much tension injures the muscle—facts which have been proved by experimental investigations of Capuro. We can best entwine the tendons by carrying the power-giving tendon through a slit of the power-receiving tendon, which, outside of this, has been left intact, and making this position secure by a number of sutures. Between the ordinary interrupted suture one or the other cross stitch may be inserted, so as to surround part of the tendon, and through this means prevent a tearing. As suture material, the most diverse substances have been recommended. The different preparations of catgut do not seem reliable enough, for in case of too early absorption the suture naturally would have to give. Aluminum bronze and like metallic threads might easily produce a slackening of the tendons, and might act as foreign bodies in the same way as we know to be the case with metallic sutures in bone, which are often thrown out later on. The same is true of silk, to which I have always returned again. It cannot be denied that in a certain percentage of cases the silk is eliminated, however carefully it may have been sterilized. We boil the silk loosely rolled on spools in sublimate 1 : 1000 solution. Some time ago I tried to get an idea of the frequency of elimination of the materials of sutures, but in the calculation I think I have been rather too pessimistic. When I got the answer to my inquiry, that in some cases moisture had been noticed in the line of suture, I without hesitation regarded those cases as cases of pus formation in the sutures. Many, however, informed me, after repeated inquiry of late, that there had only been chafing of the suture, but that no silk thread had been eliminated. Among the last fifty cases only three cases of thread elimination have come to my notice. Hence 20 per cent., a percentage given by me some time ago, does not seem to be right; a definite number, however, I cannot state, yet I think I am able to say with certainty, that Lange would have to correct the percentage of 2 per cent. which he has adopted, if he had occasion to examine his patients carefully after some years. Such a low percentage could not be made to agree with the general surgical experience. That this elimination is by no means necessarily connected with an infection, which might be avoided by a more careful asepsis, is clearly shown, since the silk threads sometimes only appear after the lapse of years and years. In most cases they naturally heal in without reaction. Occasionally they are found on secondary operations as small knots imbedded in clear, transparent, connective tissue.

We turn now to consider some modifications of the technics; first of all, to the periosteal method, which was originally employed by Drobnite, and which has been perfected by Lange. The operation consists in sewing the healthy tendon to the periosteum, not tendon to tendon. This proceeding has two advantages in Lange's estimation. He does not trust the paralyzed tendon to have resistance enough to withstand the traction of the transplanted muscle; he fears a subsequent stretching and with it insufficient tension and a failure as the result. I cannot share this hesitation of Lange's. I have hundreds of times exercised a very strong traction upon paralyzed tendons, in order to get the necessary tension for transplantation, but I have never been able to observe a stretching as I have already stated. I can rather refer the subsequent stretching of a paralytic muscle only to the relaxation of the degenerated body of the muscle. If Lange, with omission of the paralytic tendon, which he values little, stitches the power-giver directly to the periosteum, the question is raised in my mind, whether this suture is as solid as the one from tendon to tendon; especially since, in the latter case, the places of contact can be made so much more extensive than with the periosteal suture. Lange, however, as he states, has made experiments on the body of a child, and has found that the suture from tendon to tendon tears sooner with a decidedly lower weight than the periosteal. Such experiments, however, only bear weight if both kinds of sutures have been carried out with the same careful technics and in an absolutely analogous way. I cannot acknowledge at all the technical superiority of Lange's suture. A second advantage, according to Lange, is that we have an absolutely free choice of the point of insertion for our tendon. I cannot see any advantage in this, since it does not seem likely that we might find by deliberation a better point of insertion for the lost muscle functon than Nature has given. We might take, for example, the compensation of function of the paralyzed extensor digitorum. Lange in this case is satisfied to fasten the tendon of the power-giving muscle to the outside border of the foot. He may well achieve with it the abduction and raising of the outer border of the foot, but he neglects to restore the power of extension of the toes. This I am not able to recognize as an advantage, even in this respect, but must urgently advise in all cases where it is feasible the employment of the old method, " tendon to tendon; " the more so, since the periosteal transplantation necessitates further proceedings, of which we shall speak later on. I shall mention another development of the periosteal method, which has been recommended by Wolff before. He places the tendon below the periosteum into a bone canal; and Müller has of late even conducted the tendon entirely through bone, so that the bone is held by a tendon noose. Under the term " indirect " method, Mainzer has lately described an operation, which is so much covered by my " étape method " mentioned above, that a more detailed description of it is unnecessary.

We return to Lange and see that the tendency to transplant a tendon directly into the periosteum necessitates a lengthening of too short tendons, and Lange has done this by means of the extensive use of silk tendons, which have been some time ago recommended and successfully used by Glück.

A strong silk thread is attached to the peripheral end of the power-giving tendon and the other end of the silk thread is fastened tightly to the periosteum by means of deeply inserted sutures, which might if possible include ligaments and cartilage. We shall refer again later on to the fate of the silk tendons in the organism. Only this need be said here that, as a matter of fact, a healing in of these artificial tendons without reaction is possible. Yet the insertion of an artificial tendon represents a complication to which we should not have recourse without necessity. It means the insertion of a foreign body, which sooner or later in a certain percentage of cases is thrown out. Hence, I regard this artificial elongation by means of a silk tendon as a very interesting experiment, to which we might turn in case of need, but I should like to warn absolutely against it as a principal measure, as Lange has advised. The employment of the silk tendon as a means of transplantation stands and falls with the recognition or denial of the advantage of the periosteal suture, and since we have decided to its disadvantage, our negative position to the regular insertion of silk tendons is clear. In his enthusiasm for silk tendons Lange has gone a step further and has not only employed them to lengthen tendons, but has also attached silk threads to the side of the healthy tendon and has fastened them to a new point of insertion freely chosen by him. He produces by this means a picture similar to the ascending transplantation, only that the paralyzed tendon is replaced by an artificial one. The proceeding thus has the disadvantage of the ascending method of transplantation described above.

When I take up a position against Lange's technics of transplantation in the manner described and from the given causes, I do not wish to say that I do not employ the periosteal suture and the insertion of artificial tendons in exceptional cases. I shall come back to this later on. We have finished the tendon suture and now have to take care of the wound. I close the skin wound completely and do not consider a drainage rational. If Lange thinks by it to insure an aseptic course of healing, he is, in my opinion, decidedly in the wrong. As a fact, I have succeeded, with quite isolated exceptions, in getting a primary union under the first bandage. I put on a plaster of Paris bandage, which remains *in situ* at least six weeks. I am not yet satisfied with this position of the extremity, but ask the patient to keep quiet during the whole healing period, and to avoid every premature exertion of the tendon scar. After the bandage has been taken off, the after-treatment begins, and this consists in baths, electricity, massage, and exercises. The latter have the aim not only of strengthening the muscles, but unite with it the necessary exercise of the central nervous system and its adaptation to the changed condiions of the periphery. More of this later. It is also my practice to guard the young tendon scars for some time against overstretching, by means of suitable apparatus, steel braces, night braces, and the like.

What are the indications for tendon transplantations, and what are their results? The first condition for an operation is the presence of a disturbance of muscular function, a loss of active mobility (paralysis), or a disturbance of the equilibrium of the muscles of a joint (spasm) and the second condition is, that we possess sufficent useful muscle-tendon material attainable by operation in the vicinity of the paralyzed muscles. Concerning the results in general, we can speak of an immediate result in so far as the joint remains in a median position after the operation. From this momentary result the permanent result develops through the continued healing process. About the latter we are in possession of knowledge derived from, first, experiments upon animals, which have been made by Hoffa, Borst, Seggl, Bydygier, and myself; and, secondly, from supplementary operations, which have been executed by me in quite a number of cases after the lapse of months and years, in order to improve the primary results. It has been shown that, microscopically the healing process is the same as that we have described in the tenotomies, viz.: Besides extensive signs of processes of regeneration and degeneration, modification of the tendinous new formation through bleeding and irritation, through inflammation an exceedingly long duration of the healing process, and no return to a fully normal condition. It seems that the tendon sheath is not regenerated, a fact which calls upon us to spare it as much as possible in operating. The tendon preserves a more grayish-white color, a sign of a more scarlike constitution. We thus have on the whole to admit that, in so far as our knowledge goes, the anatomical restitution does not keep pace with the favorable functional results. Especially interesting to us is the behavior of the inserted artificial tendon. Glück, as well as myself, has succeeded in obtaining healing in pieces of tendon in such a perfect way that, later on, hardly the slightest change of resistance of the tendon tissue indicates the site of operation.

Concerning the transplantation of heterological material, investigations about its behavior are on hand by Glück, Kümmell, Seggl, and myself. Seggl states that all his silk tendons, with one exception, tore in his animal experiments, and in my case the same has happened more frequently. The conditions in animal experiments are not so favorable as in man, because there the enforcement of absolute rest is to be achieved so much more easily. We, however, possess animal as well as human specimens (Glück, Kümmell, Seggl), which show the healing process very clearly. The young tendon tissue creeps along the silk threads as along a lattice. Lange even has shown us, that in sufficiently old artificial tendons the tissue penetrates into the inside of the silk threads.

Thus, the latter are in time fully surrounded and permeated by tendon tissue, and finally lie imbedded in the newly formed tendon. Yet there has also been observed a different behavior, such that only a connective tissue regeneration takes place, which leads to the formation of a kind of tendon sheath in which the silk glides as the working tendon. In my opinion the artificial tendon, however, serves as a guiding line to the young tendon none the less that, according to the experiments of Seggl, tendon regeneration also takes place without the insertion of an artificial tendon, at least where it is a question of closing a defect. I rather think that the most important duty which falls to the silk tendon is to retain the body of the transplanted muscle in a proper tension, to prevent its retraction and shrinkage, until the young tendon has gained sufficient firmness to undertake this work itself. Hence the silk tendon serves to preserve the normal tension of the muscle-tendon. The final result naturally is dependent, in the first place, on the condition in which we find the musicle at operation. If there is a condition which represents an almost complete paralysis of the muscles of the joint, the transplantation can only come in competition with arthrodesis, and we can arrive at a result only of tendinous fixation, the faulty position of the joint will be corrected and it will gain a certain spring-like hold. The more defined the paralysis has been, and the more completely the other muscles have been preserved, the more perfect will naturally be the functional result, which may become ideal if the question has been one of paralysis of an isolated muscle. Further, result is the better, and is seen sooner, and the more kindred in function is the transplanted muscle that can be chosen. The lapse of time after which results are seen is very varied, and we enter here upon the physiological side of the question of transplantation.

(To be continued.)

Changes at Johns Hopkins.—New members of the staff of Johns Hopkins Hospital are the following recent graduates of the medical school: Dr. John Robert Carr, Dr. Josephine Hemenway, Dr. Julius Alexander Caldwell, Jr., Dr. Jewett Villeroy Reed, Dr. Ernest Sachs, Dr. Walter Vernon Brem, Jr., Dr. Wilfred Hamilton Manwaring, Dr. Herbert Ziegler Giffin, Dr. Orville Hickok Schell, Dr. Harry Seliger Greenbaum, Dr. Robert Glendenning Washburn, Dr. Herman Weston Marshall, Dr. Benjamin Taylor Terry, Dr. Robert Bennett Bean, Dr. George Lane Taneyhill, Jr., Dr. William Gray Ricker, Dr. Charles Mallory Remsen, Dr. Maurice Buford Bonta, Dr. De Witt Bellinger Casler, and Dr. James Francis Morrison.

TRACHOMA AND SOME DISEASES RESEMBLING IT.

By JAMES A. NYDEGGER, M. D.,

UNITED STATES PUBLIC HEALTH AND MARINE HOSPITAL SERVICE.

In the past year and a half or so the daily press and medical journals have been somewhat persistent in calling the attention of the public and profession to the existence of trachoma in this country, but more especially in our eastern section, through articles and publications appearing from time to time. This has been brought about, no doubt (1), by its reported prevalence and increase in some of our large cities having a large alien population, and (2) by the ever increasing tide of immigration to the United States from European countries where it prevails. That there need be no apprehension on the latter score is evidenced by the rigid government medical inspection to which aliens are subjected before being permitted to land.

It is held by most authorities that trachoma exhibits a predilection for certain races, as the Finns, Russian Jews, Greeks, Armenians, and Arabs. Some even hold that on the grounds of a fixed predisposition of the respective person the picture of trachoma can be produced. This may be more due to their habits of life than to any selective cause or predisposition. It is true that the disease is seen chiefly in those living in uncleanly and overcrowded conditions. Rarely do we see it in native born Americans. The Negro is said to be particularly exempt from it, though this statement lacks substantiation. In a somewhat extensive experience I have not observed a single case in the colored.

Trachoma is doubtless infectious and is transmitted from person to person through the intermediary of handkerchiefs used about the eyes of the afflicted, through the use of towels in common, and by the fingers, rubbing infected eyes, the secretion being transmitted by contact with some article in common use, as the handles of drinking cups, door knobs, etc. But, also, trachoma is doubtless not so infectious as is sometimes asserted and as we may be led to believe. Many cases are seen in our hospital clinics and elsewhere in which one eye shows the existence of this condition for a period extending over a not inconsiderable time, as is shown by the stage of progress of the disease, while the other eye presents absolutely no evidences of it, as on examination the conjunctiva is seen to be quite clear and normal in appearance. From what will be stated further on, we can reasonably infer that trachoma has a strong tendency to self limitation, in that it runs a course through various stages, and subsiding leaves behind its traces in thickened and scarred conjunctivæ. Thus, given good hygienic surroundings and tissue of normal resisting power, the disease has a strong tendency to self recovery without medical interference and without leaving behind any marked permanent traces. On the other hand, given poor hygienic surroundings and tissue of lower vitality, the disease is liable to be of long duration. Good hygienic surroundings play an important rôle in the prompt termination of the disease. Should it become chronic, recovery is doubtful, as relapses are liable to recur. I think but a very small percentage of all cases reach this stage whether treated or left untreated.

Broadly speaking, we are very apt to mistake other diseased conditions of the conjunctiva for trachoma, and vice versa; but especially the former, unless we have had the advantages of special experience and training in their recognition.

A condition of the conjunctiva frequently seen and one which is less frequently mistaken for trachoma, is papillary conjunctivitis, or what is more properly speaking a condition of enlargement of the papillæ of the conjunctiva. As usually observed, these enlarged papillæ—for in their normal size they are not visible—may show over the whole, or only a part, of the tarsal conjunctiva of the upper lid. They appear to be situated directly on the surface of the conjunctiva and consist of minute, fine, pin-point-like elevations. On eversion of a lid these hypertrophied papillæ may be seen to be so closely set together as to give to the conjunctiva the appearance of fine grained sand paper. The conjunctiva may present, in conjunction with their presence, a pale red, congested appearance, depending on the vascular supply of the part. This condition is usually observed in eyes having high refractive errors or muscular insufficiencies, and is not to be associated with trachoma.

Differences of opinion are maintained concerning follicular conjunctivitis and granular conjunctivitis, or trachoma. The histology has not been definitely worked out in both. One view held is that they are one and the same disease. The other view is that they are separate and distinct conditions, due to different causes. Thus we have an unitarian and a dual view of the diseases.

In a normal conjunctiva the follicles are not visible—that is, they do not show. In following conjunctivitis we see the enlarged follicles mainly on the conjunctiva of the lower lid. They are arranged somewhat in rows, and are small and pinkish in color. They are not thickly placed, being generally scattering. They show more above the surface than trachoma follicles. In fact, they appear to be set on the conjunctiva, while the trachoma follicles are in the conjunctiva and are larger. There is little, if any, or no thickening of the conjunctiva in follicular conjunctivitis herein differing from trachoma. No permanent traces of follicular conjunctivitis are left behind after recovery. These follicles are not persistent, and unlike trachoma, have a tendency to disappear in a short time. Still, we are compelled to admit that in the incipient stage of the two diseases it is most difficult, yes, impossible, in the majority of cases, to distinguish the one from the other. Only subsequent observation of the changes following the progress of the diseases will remove the inability to decide.

According to the observations of the writer there appears to be no relation between the two diseases; nor does follicular conjunctivitis appear to be the forerunner of trachoma as is asserted by some.

Trachoma follicles are to be regarded as new tissue. The appearance of trachoma follicles which make more or less large nodes is indeed very different, on account of their size and state, and according to the grade of the diseased processes. The follicles, granules, granulations, or nodes—these terms being used interchangeably—form the characteristic picture of trachoma. They are the result of inflammation, and show first as a net of capillaries with fine partitions. These granulations lie in the adenoid structure of the conjunctiva and extend or arch the epithelium before them. The conjunctiva presents a thickened, soft velvety appearance. The follicles are more intensely colored than the surrounding reddened parts, and in acute cases exhibit a peculiar glassy lustre. The trachoma granule begins as a quite small, cell-like, heaped up, round, limited form. Such a little node at first sits deeply in the adenoid structure of the conjunctiva and later extends forward.

Trachoma follicles develop first principally on the lower lid, for the reason that according to the laws of gravity the diseased material first finds its way here. In other words, they develop here, first, because they find it easier here to find a place to spread out. For this reason, in inspecting an eye for trachoma it is important to include the lower cul-de-sac of the conjunctiva in the examination, as here we shall occasionally find the granulations developing, while no evidences of the disease are to be found on the upper lid. After an existence for a time on the lower lid, the disease extends upward, inclined to the inner angle, for the reason that the tear drop goes toward the puncta at the inner angle and carries the infected material in the current in that direction. We also find granulations at times on and near the caruncles. The formation goes on in the upper lid just as in the lower lid. In recent cases it is first observed in the small depression between the edge of the lid and the lower edge of the tarsus. The follicles are developed rather late over the tarsus. They appear quite different here. Instead of the large sago-like granular formations, we at times see only whitish points, which scarcely elevate themselves above the surface and are not very sharply defined. Their smallness and limited elevation have their explanation in a purely mechanical origin, from the fact that the mucous membrane is stretched tightly over the tarsus like a piece of paper over a drawing board. The mucous membrane does not possess elasticity over this area, and for this reason the formation can take root and develop only with much difficulty. Here the granulations are always under the pressure of a tightly stretched conjunctiva which will not permit of any considerable elevation before it is perforated. When we see tarsal granulations they show a considerably advanced stage of trachoma, and, furthermore, they are absolutely characteristic of trachoma. On the upper lid the granulations find the greatest relaxation of the conjunctiva on the upper part of the tarsus, parallel to the anterior margin of the retrotarsal fold. Here the most luxurious growths of the follicles appeal. At this point we sometimes see the large frog spawn-like follicles, so called from their fancied resemblance in form, color, and consistence to frog spawn. The explanation of the large size of the follicles here is again due to the fact that here they have more room to expand.

If one turns back the upper lid it is observable that the granulations almost always cease with a sharp horizontal line over the upper border of the tarsal cartilage, in the region of the anterior margin of the retrotarsal fold. This sharp limit lies in individual cases somewhat differently, and as the character of the epithelium changes here, it is asserted that the granulations do not extend further backward. In the examination of a large number of cases, aggregating many thousands, I can recall having seen but two cases to the contrary. We must not confound the slight elevations or roughenings of the conjunctival surface which are normal and extend parallel to and directly behind the upper border of the tarsus. These slight elevations appear to be the points of union of vessels. They are more deeply colored than the surrounding tissues. When the lid is everted these points are dragged slightly forward and appear to rest just on or behind the upper border of the tarsus.

The outcome of trachoma granulations can be twofold: First, the discharge of the contents; second, the resorption of the contents. In both ways the cicatrices close. It appears that, with a certain large size, a certain degeneration of the granulations takes place. After a long existence there begins in the centre of the granulation a degeneration. There is a cirrhosis, with shrinking of the granulation and a resulting scar. A trachoma granulation can be resorbed and leave behind inconsiderable scar tissue, but traces of the disease will always be present. One sees that the mucous membrane has a more or less milky, white, stringy color, according to the degree of the exhausted trachoma.

In trachoma there is always found an inflammation of the mucous membrane which surrounds the follicles, be they numerous or single. It always produces a reaction. Sometimes the thickened and contracted conjunctiva produces a wrinkled appearance of the skin of the eyelid. We sometimes hear this spoken of as the characteristic "trachoma lid." But this occurs so infrequently as not to be of any diagnostic value, and thickening of the conjunctiva may result from other causes. A severe case of trachoma may present externally no signs of its presence. To the observer the eye may appear entirely normal. It is only by everting the lids that we come to discover its presence or absence.

The epithelium of the conjunctiva suffers numerous changes from the trachomatous process. Epithelial hypertrophy and degeneration are found on the apices of the elevations. We sometimes see in advanced cases, after the trachoma has exhausted itself, that the epithelium of the mucous membrane becomes epidermic like, with glassy hyaline-like changes. We also notice that the thickening of the mucous membrane is not regular. There is also an increase in the natural folds of the conjunctiva. The contraction and shrinkage of this tissue produces an entropion of the lids, which frequently leads to trichiasis. Sometimes, on everting the lid, we observe that the contracted conjunctiva springs the retrotarsal folds forward in thick, tight, hencomb-like flutes.

The late and serious complications of trachoma are pannus and atrophy of the cornea. The latter is a condition resulting from mechanical pressure of the contracted lids on the anterior surface of the eye ball. As we now know, pannus results from a direct transmission of the infected material from the conjunctiva to the superficial layers of the cornea. Following this is an inflammation, cell proliferation, and subsequent opacity of varying degree, with impairment of vision or total blindness. Only a very limited number of trachoma cases will reach this stage and then only after long periods. Trachoma runs its course usually without any appearance of corneal involvement. The second condition, atrophy of the cornea, is far more frequently seen as a sequel of trachoma than pannus. The constant pressure exerted on the anterior part of the eye by the thickened and contracted conjunctiva interferes with the nutrition of the cornea, and degenerative changes follow. The cornea shrinks in size and impairment or loss of vision follows.

If taken in hand in time, before the degenerative changes have progressed far, much benefit will result from relieving the pressure by the extension of one or both angles of the eye by surgical means.

Trachoma is without doubt due to a specific organism. The cause has not yet been convincingly demonstrated. Cocci are believed mostly to be the cause—those which show in the form of diplococci. The introduction of the Gram method of decolorizing the coccus which produces specific urethritis has eliminated this organism as a possible cause.

References.

Fuchs, *Textbook of Ophthalmology.*
Orth, *Histology of Trachoma.*

Rochester State Hospital.—Bids for the construction of several buildings at the Rochester State Hospital and for additions to several buildings were opened on September 7th at the office of the State Commission in Lunacy in the capitol, Albany. The additions are to be part of the general scheme of enlargement of the Rochester Hospital for the Insane, made necessary by the large increase in the number of patients undergoing treatment. They include the construction of a storehouse and conduit, bakery, extension to laundry, and the equipment of the present buildings with additional fire escapes. Three fire escapes will be put up on the old buildings, in accordance with the recommendation by the Grand Jury made shortly after the Baltimore fire and approved by the fire department. The storehouse will be attached to a corner of the boiler house. The conduit will run from the boiler house to the various buildings which will be heated from it. The addition to the laundry will be made at the rear of the building and will greatly increase its facilities. Work on the buildings will probably begin in a few weeks, and should be finished before winter.

NOTES ON URÆMIA, UREA, AND THE UREA TESTS.*

By F. L. WACHENHEIM, M. D.,

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There seems to be quite a little confusion on the subject of uræmia, its relation to the excretion of urea, and the relative prognostic value of the tests for albumin and urea. A few remarks on these topics may therefore be of some interest.

Osler[1] defines uræmia as a series of manifestations, chiefly nervous, developing in the course of Bright's disease, and due to the retention within the blood of poisonous materials which should be eliminated in the urine. He then modifies this definition by adding that, while usually seen in nephritis, it may also occur as the result of mechanical obstruction of the ureters, impairment of the renal circulation, and certain profound alterations of the blood. The last reservation emphasizes the impression gained from the definition as first stated, namely, that the condition is a toxæmia, not produced by any renal lesion, but under normal conditions prevented by the excretory function of the kidneys. In other words, it is the duty of these organs to obviate the development of the uræmic state, and, regardless of their histological condition, so long as they perform that duty fairly well, uræmia will not develop.

There is a corollary to the above proposition. Assuming the presence of severe renal disability, the development of the toxæmia may still be warded off by the vicarious action of other excretory organs, namely, the intestine, lungs, and skin; indeed, the corollary is possibly of greater consequence than the main proposition, for all that confronts us is the problem of excretion; the manner and site of the removal of the toxic matters are of no special importance, provided the object of preventing uræmia is attained.

No clinical fact is commoner than the want of correlation between nephritis and uræmia. Patients with extensively degenerated kidneys often present no uræmic symptoms whatever; on the other hand, we frequently, as, for instance, in pregnancy, witness typical manifestations where no anatomical renal lesion can be demonstrated. In advanced stages of nephritis we can often ward off uræmia or cause it to disappear, by calling into action the vicarious organs or stimulating the remaining renal cells to increased activity. Still more striking is the almost immediate cessation of the uræmia of pregnancy upon the discharge or removal of the fœtus; here there is surely no treatment of any sort directed to the kidneys, but merely the evacuation of a parasitic organism, which has poisoned its host with the deleterious products of its tissue changes; the poisons being perhaps too abundant to be disposed of even by normal organs. All these circumstances point to the source of uræmia either in the absorption or retention of noxious metabolic products, or in the formation of such bodies by a pathological tissue chemism, possibly both processes acting concurrently.

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* Read before the Metropolitan Medical Society.

[1] *Practice of Medicine*, second edition.

It is, therefore, plain that uræmia is not directly traceable to any renal lesion and is not proportionate to its intensity and extent when present. The affection of the kidney structures can only involve the suspension of one of the safeguards of the organism against the uræmic autointoxication; it is as if the safety valve of a steam boiler ceased to work from an accumulation of rust.

It is also evident that treatment of the uræmic state would be greatly aided by accurate knowledge of its true cause; a definition of the poison or poisons producing uræmia is at present the greatest desideratum, the realization of which would put our therapeutic measures on that comparatively high level attained in the treatment of diabetes, where the errors of metabolism and toxæmic eventualities are quite well understood.

The oldest theory of uræmia is that of Wilson,[2] who attributed it to the retention of urea, or, more accurately, to the presence of an excess of urea in the blood. This view is sufficiently refuted by the following facts: first, the blood in uræmia may contain subnormal quantities of urea (Bartels[3]); secondly, the urine in uræmia may contain an excess of urea (Babington[4]), an interesting circumstance to be utilized again later on; thirdly, the injection of urea into the circulating blood is innocuous (Stannius[5]).

Next comes the creatinin theory of Schottin,[6] disposed of by the demonstration of Meissner,[7] that creatinin is non-poisonous; then we have the ammonium carbonate theory of Frerichs,[8] disposed by the fact that ammoniæmia, a very different type of autointoxication, is usually not present (Kühne and Strauch[9]). The most modern view along these lines is that certain undesignated and undemonstrated ptomaines fail of excretion. I shall recur to this matter presently, but the idea of a failure to excrete a normally formed ptomaine may be at once dismissed, for Frerichs (*loc. cit.*) showed that the injection into the blood of filtered urine was an almost harmless procedure.

It would therefore appear that, under normal conditions, no substance is present in the blood or excreted by the kidneys, capable of causing uræmic symptoms; it is clear that we must look further and assume that, with the failure of the renal function, also under certain other conditions, pathological chemical changes take place within the body. It has been supposed that the ordinary urinary constituents themselves undergo alteration or set up a secondary metabolism; on the other hand, it seems even more likely that we have to deal with an autointoxication with albumin derivatives which, for some reason, do not undergo the normal conversion into urea. The latter view better accounts for the uræmia of pregnancy, for here we know the maternal organism to be deluged with bodies of this very class; it also offers an explanation of the frequent marked reduction in the excretion of urea in these cases, a sign often utilized for prognostic purposes, the value of which will be discussed below.

The second theory enunciated would refer the origin of uræmia to an impairment or insufficiency of the hepatic function, for, since the researches of Nencki, Pawlow, and Zaleski,[10] we know that the liver is the organ chiefly responsible for the conversion of the nitrogenous detritus of the body into urea. Bouchard[11] was the first to express the pathological application of this view; since then clinical facts have been adduced in corroboration. Schreiber,[12] for instance, reports a case of puerperal eclampsia without renal lesions, but with extensive parenchymatous degeneration of the liver. Dienst's[13] investigations divide the responsibility for eclampsia pretty equally between the liver and the kidneys, the former being the primary cause of disturbance, the peculiar conditions during pregnancy not requiring an anatomical lesion in the latter to produce insufficiency. Of these last conditions I need only mention the increased intraabdominal pressure, as one of the most important.

The above statements are often met by the reply based on the opinion of Stroganoff[14] and others, that puerperal eclampsia and uræmia are not the same thing. These opinions rest entirely on the circumstance that in the uræmia of nephritis the kidneys are diseased, while in the identical clinical picture in the puerperium this is not necessarily the case. Of course, we may limit uræmia strictly to nephritis; it is merely a matter of nomenclature; most of us prefer to consider a symptom group in all its relations, even at the risk of sacrificing preconceived ideas of pathology. It is not difficult to go even further, and show that there is no clinical dividing line between cholæmia and uræmia; the difficulty of deciding in a particular case whether hepatic or renal insufficiency is at fault is admitted by such experienced clinicians as Quincke[15] and Osler (*loc. cit.*). Omitting the features of cholæmia due to bile intoxication, which are of doubtful importance and frequently absent, the similarity of the two pictures is suggestive and striking.

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[2] *London Med. Gazette*, 1833.

[3] Ziemssen's *Handbuch*, Vol. 9.

[4] *Guy's Hosp. Reports*, 1836.

[5] Vierordt's *Zeitschr.* 1849.

[6] *Arch. für phys. Heilkunde*, 1853.

[7] *Berl. klin. Wochenschr.*, 1868.

[8] *Die Bright'sche Nierenkrankheit*, 1851.

[9] *Centralbl. für die med. Wissenschaften*, 1864.

[10] *Arch. für exper. Pathol.*, Vol. xxxvii & xxxviii.

[11] *Leçons sur les Autointoxications*, 1887.

[12] *Monatsschr. für Geburtsh. and Gynäkol.*, 1895.

[13] *Centralbl. f. Gynäkol.*, May 11, 1901.

[14] *Monatsschr. f. Geburtsh. u. Gynäkol.*, October, 1900.

Inasmuch as the vast majority of cases of puerperal eclampsia is attended with serious renal lesions, the few exceptions will not justify us in dissociating this complication of pregnancy from the ordinary uræmic state. The question of the value of the urea test, now to be taken up, has, curiously enough, been studied entirely in connection with the former condition; its relation to the latter is, however, so obvious, that no apology should be necessary for introducing it here.

Ignored save in the English speaking world, the association of eclampsia with a diminished excretion of urea has attracted especial attention in this country since the publication of a paper by Davis.[16] Davis lays the greatest possible stress on the routine examination of pregnant women with reference to the relative failure of this excretion, and sets the danger line at about 1.5 per cent., that is, from 15 to 20 grammes of urea per day. There is no difficulty in demonstrating the first fallacy of his method; for, even if the whole twenty-four hours' urine is tested for several days in succession, the results are scientifically worthless, unless account is kept of the ingested nitrogenous food, an estimate made of the wear and tear due to muscular exercise, and the activity of the vicarious organs considered. I refer but briefly to Davis's statement that the poisons producing eclampsia are formed from the excess of retained urea; this excess does not usually exist to begin with, and the decomposition spoken of is almost certainly a chemical impossibility. I have already discussed sufficiently the absence of any correlation between urea and uræmia, and shall merely refer to the fact that the excretion of urea may be normal or even increased shortly before an eclamptic or uræmic seizure. Northing seems more natural to me than the cool and calm disregard of Davis's results manifested by all foreign observers, or the feeble interest of the internal clinicians, who have contributed not so much as one little line to the literature on the subject. These two classes of physicians, while admitting inadequacy in a small proportion of cases, still regard the kidneys as the organs to be watched most carefully, and continue to examine for albumin and casts as the most reliable danger signals.

A colleague whose true scientific spirit is beyond question remarked on one occasion that, but for the Doremus apparatus, no ordinary practitioner would think of making routine tests for urea. It is this dainty little instrument, I almost said toy, which has endeared Davis's suggestion to his fellow clinicians. It is intended, of course, to be a convenient mode of applying the hypobromite test; so handy, indeed, that the safeguards necessary in its employment are, I regret to say, habitually disregarded. The tube is filled, the solution added, the bubbles rise or fail to rise, after a few minutes the figures are read off the scale, and everything has been done to safeguard the patient.

Let me begin with the corrections required in using the Doremus tube. To begin with, about 8 per cent. of the gas fails to be liberated, sometimes more, sometimes less; secondly, correction must be made for barometric pressure and temperature, the apparatus being adjusted to the average pressure at sea level and the freezing point. The error on a sultry summer day amounts to 15 per cent., and at an elevation such as Colorado Springs may be 35 per cent. Thus, every observation must be calculated according to a somewhat complicated formula, a few experiences with which will tend to discourage the ordinary physician who has no head for mathematics and cannot stand the fumes of bromine.

I mention the bromine fumes merely in passing; their disagreeable and destructive effects may be somewhat mitigated by using a solution of Br in NaBr. There is, in addition, the difficulty of keeping the 40 per cent. NaOH solution anywhere near that strength, since it attacks the glass of the bottle and has an intense affinity for CO_2 and water. I shall not refer to the excellent Kjeldahl test at all, it is utterly unsuited to any place except a fully equipped chemical laboratory.

It would seem almost absurd to mention it, but it is not so generally known as it should be, that the hypobromite reaction is not at all a test for urea exclusively, but one for nitrogen in general, responding, therefore, equally well to albumin, uric acid, hippuric acid, creatinin, and ammonium compounds. Joslin[17] noted a reaction to acetone and diacetic (oxybutyric) acid; as acetonuria may occur in pregnancy without diabetes, indeed, is to a certain degree physiological (Stolz[18]), and alimentary acetonuria may be regarded as an established fact (Waldvogel u. Hagenberg[19]), and as, furthermore.

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[15] *Krankh. der Leber, Notnagel's Spec. Path. u. Ther.*, Vol. xviii.

[16] *Amer. Journ. of Obstet.*, January, 1898.

[17] *Brit. Med. Journ.*, December, 1902.

[18] *Arch. f. Gynäkol.*, 1902.

[19] *Zeits. f. klin. Medizin*, Vol. xlii.

our quantitative tests for acetone and diacetic acids are both troublesome and unreliable, so that subtraction from the total is not feasible, we see the maze of confusion presented by this test. The diminution of nitrogen in the urine, as estimated with the Doremus apparatus, if carefully corrected, may possibly have a certain prognostic value; normal and plus readings are as misleading as can be imagined, for example, in the presence of combined nephritis and diabetes.

105 EAST EIGHTIETH STREET.

THE NON-SUSCEPTIBILITY OF THE NEW-BORN TO MEASLES.

By EDWIN E. GRAHAM, M. D.,
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The writer believes that the following case showing the non-susceptibility of the infant at full term to measles is of sufficient rarity and interest to warrant its being reported.

Mrs. S——, aged twenty-four years, was seen on the morning of February 28th; her temperature was 102.4°; there was marked coryza, cough almost constant, with well developed bronchitis, and the face and upper part of the neck were quite largely covered with a well marked rash of measles; the body showed a few isolated spots and the voice was distinctly hoarse.

The following morning, at 3 o'clock, after a normal labor at the end of a full period of uterogestation, a full term male infant was born, being absolutely normal in every respect. By this time the rash had spread over the mother's entire body. The child was well developed, healthy, free from rash, of normal temperature, and, in fact, presented no abnormal conditions or symptoms. At no time was the child isolated from its mother; it was kept in the same bed, nursed at intervals of every two hours, and treated exactly the same as if it were not exposed to the contagion of measles. The attack in the mother ran a moderately severe course; the cough persisted for ten days; the hoarseness, a result of a severe laryngitis, continued for two weeks, but at no time were the symptoms alarming.

When the infant was nine days old, the other child of the family, a male of eighteen months, showed a typical case of measles. The child recovered rapidly with no disagreeable symptoms. At the present writing, six weeks after its birth, the infant has presented no evidences of having contracted the disease.

Measles may occur at any age, although the two extremes of life, infancy and old age, show the fewest cases. Mayr reports ten nurslings exposed, and only one child contracting the disease. Boutillier, in a report of an epidemic in the foundling hospital at Bordeaux, writes of thirty-three children, between one year and seven years of age, twenty-four of whom were attacked; of forty children under one year, seven only were attacked. This would make it appear that the susceptibility to contract the disease is certainly very marked after the age of one year. Thomas reports, however, six instances in which the rash of measles was present at birth, and von Jürgensen reports several cases where, the mothers contracting the disease just before delivery, the rash appeared on the children a few days after birth. He believes the contagion is in these instances carried by the placental circulation. An interesting case is reported by Thomas. The mother had measles at the fifth month of pregnancy; the child at the age of nine years had measles, other children in the family having the disease at the same time.

The mortality in hospital practice is, according to the reports of Marfan and Bernard, greatest in children under one year of age. They report four hundred and eighty-three cases in children, with one hundred and four deaths, or 21.15 per cent. The exact percentage of deaths in children under one year of age is not given in figures. The danger of the disease in hospital practice is recognized by all.

A. Bartsch reports a case of intrauterine infection. The child was born on the day the rash of measles appeared on the body of the mother. The infant at birth had conjunctivitis, nasal catarrh, and cough, and when it was three days old the typical rash of rubeola appeared. The disease ran a rather mild course.

In an epidemic of one hundred and seven cases of measles in the Infants' and Children's Hospital, Randall's Island, reported by Carr, twenty-five of the patients, or 23.36 per cent., were one year of age or less. Of these twenty-five patients, four were six months of age or less. This would tend to prove that six months seems to be the age at which distinct susceptibility to the disease begins, and that after one year, as noted earlier, the susceptibility is very marked. In a recent epidemic of measles under my care in the Children's Hospital department of the Philadelphia Hospital, in eleven cases, the youngest child was aged seven months, and, being a strong, well developed, breast fed baby, made a rapid recovery. One child, two months of age, was, by mistake, transferred to the measles pavilion, remained four days, and did not contract the disease. Of these eleven patients, four died, three of those who died having diphtheria as a complication.

New Hospital for Thomasville, Ga.—The contract for the erection of the $6,000 city hospital building has been let and work will commence at once. The building is to be erected on the lot recently purchased by the hospital association on Gordon Avenue.

INSUFFICIENT MOTILITY OF THE STOMACH AND ITS TREATMENT*

By DUDLEY FULTON, M. D.,

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The importance to digestion and health of the normal motor functions of the stomach, and the part which the disturbances of these functions play in producing disorders of digestion and nutrition, are worthy of more attention and study than is ordinarily given to them. We believe that at this day no physician hopes effectually to treat stomach disorders of long standing without first analyzing the gastric juice, to determine its abnormities. Less attention has been given to the motor functions of the stomach, notwithstanding that its study is comparatively simple and easy. It is a fact which everyone has observed, who has studied the ailments of digestion, that imperfect motility of the stomach is much more productive of loss of health than is imperfect gastric secretion.

Good health is not incompatible with grave disorders of the gastric juice, or even with entire absence of it, so long as the stomach propels the food into the intestine within normal time limits, where, as is well known, stomach digestion can be vicariously performed by the pancreatic juice.

On the other hand, the retention of food in the stomach longer than is normal invariably soon disturbs the general health, and the digestive power of the gastric juice as well, by the inflammatory reactions in the mucosa induced by the decomposition of the retained food mass.

The size of a stomach, it should be clearly understood, need have no bearing upon its ability to propel food into the intestine, notwithstanding the fact that enlargement of the viscus and lowered motility are usually coexistent. A very large stomach may have normal motility, and a small stomach poor motor powers. Ptosis, or downward displacement, of the stomach as a whole, also, has no influence upon the passage of food into the duodenum, unless complicated by poor muscular powers or by pyloric obstruction.

Ætiology.—Any one of three factors may cause insufficient motility of the stomach:

1. An excessive amount of food may not be emptied into the duodenum within normal time limits.
2. Insufficient motor power due to atonic state of the muscles or nerves of the stomach.
3. Pyloric obstruction.

Abnormal retention of food, resulting from an excessive quantity or bulk of food, is usually an acute condition, and has no bearing upon chronic retention unless frequently repeated, in which case weakness and impairment of the musculature result from overwork. Acute distention is by no means an uncommon condition, especially in children.

Atonic insufficiency occasionally follows acute exhaustive fevers, such as typhoid and, we believe, influenza. Two cases are now under observation which have low motility, following severe attacks of grippe. Atonic insufficiency is common in neurasthenia and gastric myasthenia, where the relaxed and exhausted state of muscles and nerves permits distention and dilitation and the retention of food to pathological limits.

Atonic insufficiency may or may not be complicated by dilatation of the stomach. If the atony is of long standing and acute distentions are frequent, permanent enlargement results.

In obstruction from whatever cause, motility may be at first only relatively reduced, the normal muscular efforts being insufficient to propel the stomach contents through the obstructed pylorus. As in stenosis of a mitral or an aortic orifice of the heart, so in pyloric stenosis, hypertrophy of those muscles behind the obstruction occurs.

Pyloric obstruction may be benign or malignant in character. Of the benign, hypertrophic stenosis is one of the most interesting. Normally the pyloric sphincter reflexly obeys impulses from the duodenum, intermittingly relaxing to allow the acid chyme to pass into the gut. If excessive acidity of the gastric juice exists, the sphincter muscle hypertrophies from irritation and overuse, thereby producing a relative stenosis of the pylorus. Cicatrices of healed gastric ulcers may produce constriction of the pyloric opening, also pressure from without by tumors, fibrous bands, and adhesions to other organs. Many obscure disturbances of digestion, abdominal pain, and distress are caused by inflammatory adhesions of the stomach to appendices and gall bladders and to the omentum, which, if the diagnosis were made, could be relieved by surgical measures.

In searching for causes of food retention, obstruction of the duodenum should not be overlooked. I just now have a patient with marked dilatation and food retention; the constant presence of bile in the lavage water makes the diagnosis of obstruction below the orifice of the common bile duct likely.

Cancer of the pyloric region usually, sooner or later, offers an effectual barrier to the passage of food into the duodenum.

In mechanical obstruction of the pylorus, dilatation follows. It is as likely to occur as dilatation of the heart, and for the same reasons—stenosis of the orifices and overwork.

Pathology.—Of the pathology little need be said. The walls of the stomach, in advanced cases, are thin and relaxed. The muscle fibres may be hypertrophied, but later they are found atrophied and separated by connective tissue. If dilatation exists, the stomach may be greatly enlarged, reaching to the symphysis. In simple atonic insufficiency of recent duration no characteristic changes are seen. In old cases and those secondary to previous disease of the stomach, changes in the mucous membrane, atrophy of glands, overgrowth of connective tissue, and cicatrices exist. The pathology of these cannot rightly be discussed here.

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* Read at the Indiana State meeting at Richmond, Ind., June, 1903.

Symptoms.—The one symptom common to, and peculiar to, insufficient motility of the stomach—whatever may be the cause—is retention of food within the stomach longer than normally. In health, if the stomach is washed out six or seven hours after a meal, no food is found. When the motor function is disturbed, food in greater or lesser quantity is found several hours, and even days, longer than normally—depending entirely upon the degree of disability of the motor function.

In complete stenosis of the pylorus, the stomach is simply a reservoir without an outlet.

In severe cases of insufficient motility the signs and symptoms are pathognomonic. In motility of lesser degree a diagnosis cannot be made from nervous and secretory disorders of digestion, from the clinical signs and symptoms alone.

In order intelligently to understand such a case, the motor functions of the stomach must be studied. This is doubly important when it is recalled that disturbed motor functions cannot long remain uncomplicated by changes in the mucous and glandular layers of the stomach, causing nausea, vomiting, pressure, pain and distress, loss of appetite, and general deterioration of health. The normal empty stomach secretes no gastric juice. Food stimulates the flow of gastric juice which is maintained as long as food is present. In insufficient motility food may be present in the stomach all the time. This means that there is a continuous flow of gastric juice, which, if long continued, exhausts the overworked gastric glands, with a resulting atrophy of the mucous layers of the stomach. The state of the secretions—the amount of free HCl, combined HCl, the total acidity, the presence or absence of the digestive ferments—is not constantly the same, but varies within wide limits according to the secondary or accompanying disturbances in the secretory, vascular, and nervous mechanism of the stomach which the retained food mass has induced. Pain may or may not be present. Fermentation, gases, and distention are common symptoms; autoinfection—headache, languor, nervous inability, anæmia, disturbances of nutrition, and weakness—are present in varied degree.

Two or three symptoms are suggestive of insufficient motility. The stomach absorbs practically no water. If obstruction to its passage into the bowel exists, the tissues suffer from water deprivation; therefore a peculiar dryness of the skin and tissues exists. The amount of urine is scant, from 1,000 to 500 c. c. a day being the total amount passed. The amount of urine and the degree of constipation, and the amount of fæces, are of diagnostic value, as they are in proportion to the degree of insufficiency present.

Vomiting is perhaps the most characteristic symptom. In gastritis, ulcer, carcinoma, and the acute dyspepsias, vomiting occurs immediately after eating or at the height of digestion, and consists mainly of food just eaten. In motor insufficiency, vomiting results when the stomach fills and an overflow occurs. Usually, hours after eating, and often at night, the patient is wakened by nausea and desire to vomit. The vomitus consists of an immense quantity of coarse particles and undigested food that was eaten some two or three days before. The symptoms of fulness, pressure, lassitude, and headache, which have been accumulating with the retention of the food, disappear with the vomitus, to return again as the stomach refills.

Diagnosis.—Vomiting occurs only in well advanced cases, and, consequently, is of no great service in determining an early diagnosis. This must be made by examining the motor functions of the stomach. One of the simplest and best methods is lavage six or seven hours after eating, as advised by Leube thirty years ago. If food is present, insufficiency exists, the amount indicating the degree of insufficiency.

The method of Riegel, of washing the stomach before supper, and then in the morning before breakfast, is useful. If food is then found, marked insufficiency is suspected. A method advised by Hemmeter is often used by the writer. At the morning meal—breakfast—rice and eggs are given. Six hours later the Ewald test meal, consisting of two pieces of toast and a glass of water, is given. At the end of an hour the food is siphoned from the stomach and subjected to analysis. The presence of portions of the breakfast meal indicates insufficiency of the motor powers.

In ordinary test meals (1½ to 2 ounces of dry bread or toast and 9 ounces of water) the amount taken should in all cases be compared with the amount withdrawn at the end of an hour. Normally, the filtrate varies from 20 to 50 c. c. A filtrate of 5 to 10 c. c. indicates a rapid motility, while 70-100, or more, c. c. means slow motility and retention. The salol test of Boas and Sievers—15 grains of salol administered in capsules—is valuable. Salol is not broken into phenol and salicylic acid until it comes in contact with the alkaline intestinal secretions. Its absorption and appearance in the urine require about an hour. The addition of ferric chloride gives a violet color to the specimen of urine. The specimens of urine are collected every half-hour. The appearance of the reaction indicates fairly accurately, therefore, the time at which the stomach begins to empty its contents into the duodenum. Huber has modified the test. Normally the reaction ceases after twenty-six or twenty-seven hours. If the urine gives the violet color a longer time, the inference is to be drawn that the stomach empties more slowly than is normal.

The form of insufficiency is more difficult to determine—whether due to atony or obstruction, and whether dilatation is present or not.

Absence of HCl, in the presence of a tumor, together with cachexia, etc., strongly suggests cancer.

The presence of HCl and ferments in the presence of a growth indicates a benign obstruction—a cicatrix, bands of adhesion, or hypertrophic stenosis of the pylorus.

Atonic insufficiency can oftentimes be inferred only from the state of the secretions, general nervous conditions, and the absence of organic changes.

Palpation, succussion sounds, and ascultatory percussion are of value in locating the lower border, as in ptosis of the stomach, but are valueless in determining dilatation. To do the latter, the upper and lateral borders must also be accurately determined. Illumination of the stomach by Einhorn's diaphane seems less accurate to me than distending the stomach by gases, which is accurate, and the method simple.

Treatment.—The indications for treatment are plain—the diagnosis of insufficiency due to atony or to obstruction having been determined.

In both, stagnation of the stomach contents is to be prevented.

In both, a diet must be given that spares the motor powers of the stomach. Aside from these common indications, different procedures must obtain in the atonic and in the obstructive forms.

In the atonic, to improve the muscle tone and motor powers of the stomach is the indication.

In obstruction, to do this would be worse than useless and an irrational procedure, as it would add to the difficulties. In this form the one indication is to remove the obstruction as early as a diagnosis permits. Anything short of this is wasted effort.

1. In selecting a diet for patients with reduced motor powers, we make it a working basis that, the more feeble the motility, the more liquid the diet we prescribe; especially is this true when we have a case with obstruction of the pylorus. Milk preparations, soft eggs, gruels, soups, and the various articles of concentrated food are to be chosen. A common error is to allow the patient too much liquid food at a feeding. Liquids are both heavy and bulky, and if taken in this way add to the distention and discomfort. The feedings should be small and frequent. In cases of but slight motor insufficiency, if an analysis reveals a fairly normal gastric juice, solid foods, meats, purée of vegetables, toasts, etc., may be allowed. In these cases I have often had the best results by giving the patient but two meals a day. But in weak, emaciated patients, the stomach is usually unable to dispose of enough nourishment for the day on the two meal plan; such patients do better on five or six smaller meals.

2. *Medicinal Treatment.*—Not much in a curative way can be done by medicinal treatment, but much, often, in relieving the distress of the patient. In atonic insufficiency, strychnine, $^1/_{24}$ of a grain three times a day, should be tried. I believe I have often had good results with a pill containing from half a grain to a grain of creosote, with one grain each of pulverized rhubarb and soap, in improving the peristalsis and fermentation after meals. The same may be said of salicylic acid or the salicylate of bismuth. Medicinal measures are also of value in correcting symptoms arising from abnormities of the gastric juice. In all cases of this sort, careful analysis of the state of the secretions is to be made, and the medicinal and dietetic efforts must be governed thereby. In the absence of HCl, the dilute HCl given, freely diluted, in 20 or 30 drop doses, through a glass tube, after meals, and repeated two or three times, is of decided value in some cases. While it is probably impossible fully to satisfy conditions when the HCl is entirely absent, observers, with very few exceptions, believe it to be one of the best stomachics and stimulants to pancreatic activity that we have. Where excessive acidity exists, teaspoonful doses of burnt magnesia and sodium bicarbonate one or two hours after eating, and repeated if need be, relieve the cardialgia.

3. Of the mechanical measures, well fitted abdominal bandages very often give great relief.

Lavage is indispensable in all cases in which there is abnormal retention of food. After food has lain in the stomach several hours longer than normal, and becomes thereby a decomposing, fermenting mass, its further retention and passage through the twenty feet of intestines can result only in further harm to the patient, by the absorption of toxines and the disturbance of intestinal digestion.

I make it a rule in those patients in whom food is found in the stomach before eating in the morning, to wash the stomach daily night or morning.

In cases of less severity, lavage once or twice a week may suffice. The bitter tonics or antifermentatives can often be added to the wash water with advantage.

The relief afforded by lavage, where it is indicated, is most gratifying. It undoubtedly improves the tone of both the secretory and motor mechanisms of the stomach by the rest which its use affords. Lavage should be entirely controlled by the physician, as it, like any other useful procedure, may be abused.

I have used internal faradaization of the stomach in 14 atonic cases, for a period of from two to six months: nearly all these cases have undoubtedly improved. How much the internal faradaization has benefited them, and how far their improvement is due to systematic lavage and careful dieting, I am unable to estimate. My impression is, however, that benefit will result from its use.

In treating motor insufficiency due to obstruction, if the time is not already here, the future will surely decree that the internist shall call in the surgeon. No relief need be hoped for by any other than operative measures. And these patients should be operated on before the general health has deteriorated—in other words, as early as a diagnosis of obstruction can be made.

Furthermore, I believe that those *atonic* cases, with marked food retention, which do not improve by dietetic, mechanical, and medicinal methods should be relieved by operative procedure before the health and strength of the patient are entirely spent. I do not believe that the health and life of these patients should be jeopardized by measures which after earnest effort have proved ineffectual, especially so since we have a surgical procedure of comparative simplicity and safety which will relieve the patient of abnormal food retention within his stomach.

GONORRHŒA (?) IN THE MALE.

By JOHN FLANAGAN, M. D.,

NEW YORK.

The treatment of gonorrhœa is a matter of much interest and of grave importance at the present time; but how many cases of urethral inflammation met with in private and hospital practice really are specific, that is, contain the gonococci? I know, from personal knowledge gained at home and abroad, that very many patients present themselves to the private practitioner and the hospital clinic with the usual symptoms, viz., urethral discharge, pain on micturition, and chordee—symptoms common both to the specific and non-specific inflammations. I know that the majority of those patients are at once and without further inquiry treated for gonorrhœa, the presence or absence of the gonococci remaining a mystery.

I point out these facts believing that the treatment of the specific disease and the simple urethritis should vary. The non-specific variety can be cured undoubtedly by alkaline internal medication with restricted diet and saline purgatives, whereas the specific variety must have a bolder and stronger treatment; that is, for example, the injection that is an almost absolute necessity for the specific disease should be dispensed with in the treatment of the simple urethritis.

Undoubtedly it is sometimes very difficult to detect the presence of the gonococci, but the difficulty does not, in my opinion, warrant a physician's starting in at once on the strenuous and trying treatment necessary to the eradication of the specific ailment.

In treating a case of urethral inflammation a physician, for his own sake and in the interest of the patient, should know exactly the nature of the trouble that presents itself, and use the strenuous or milder method of treatment as the exigencies of the case demand.

216 EAST ONE HUNDRED AND FIFTEENTH STREET.

ELEVATION OF THE HIPS IN THE TREATMENT OF PLACENTA PRÆVIA.

By ALFRED KING, M. D.,

PORTLAND, ME.,

SURGEON TO THE MAINE GENERAL HOSPITAL.

A surgeon was called to a not distant city to see in consultation a lady suffering with placenta prævia. The loss of an only child a few years before made both father and mother anxious to save this one, even if Cæsarean section was required. There had been some slight hæmorrhage and pains for several hours. The vagina had been cleansed and a large iodoform gauze pack inserted. This was now saturated with blood. Examination, on removal of the pack, showed a marginal attachment of the placenta, the os patulous and beginning to dilate, and the head presenting. The patient was quickly etherized and placed in the lithotomy position at the edge of the bed, her legs being held by Kelley's leg holder. The castors were then removed from the bedstead. The side, to which the patient had been brought, was elevated and held so by means of two wooden bottomed chairs placed under the legs of that side. The plane of the patient's body now made an angle of forty-five degrees with the floor and the axes of the pelvic planes were more nearly horizontal. The canal of the pelvis was easily accessible to manipulation. Gravity, by preventing the loss of blood and the escape of amniotic fluid, and by causing the fœtus to settle to the fundus, facilitated turning as well as a speedy and safe delivery. The body of the patient was now steadied and supported by one of the physicians present. The vagina and external parts, as well as the anterior abdominal wall, were soon sterilized, the vagina and cervix carefully dilated, the head pushed to one side by a stroke of the fingers, and the membranes ruptured over one foot, which was seized and brought down. The other followed, then the body and arms and finally, with the forefinger in the mouth, the head was rotated from the pelvic canal. The time occupied in the entire delivery was not over five minutes. The uterus contracted and a hand was kept firmly upon it. The cord was soon severed and, shortly afterwards, the placenta was expressed during a pain. The loss of blood during the whole operation was very slight, not an ounce. A very hot bichloride (1 to 5000) douche still further stimulated the contractions of the uterus. After a short time the side of the bed was lowered and the mother and child were left as comfortable as after any natural labor.

The simplicity of the method, the ease and facility with which the operation was performed, and the slight loss of blood were a cause of surprise, gratification, and pleasure to the physicians assisting, who had not seen the method mentioned or employed.

A short time afterwards the surgeon met a fellow practitioner, who told him with great glee how he had just treated a case of placenta prævia in the same manner and with the same happy result. When asked if he had seen the method spoken of in any textbook, he answered: "No." When asked where he got the idea, he said: "From a friend." This friend was present at the operation described.

It is a matter of surprise that our excellent textbooks on obstetrics make no mention of this method, but it is not surprising that this surgeon, accustomed to pelvic surgery, should naturally adopt it, for he knew the great saving of blood, which comes from elevation of the hips, especially when veins are severed and that, in placenta prævia, most of the bleeding comes from the venous sinuses. He valued it highly in excisions of the rectum. He no longer closed the abdominal wound, when making use of Trendelenburg's position in doing an abdominal hysterectomy, without lowering the patient first to make sure that no hæmorrhage would follow the change of position, for he had again and again been rewarded for his pains by seeing blood well up from some vein which allowed no drop of blood to escape when the hips were in the elevated position. In short, the principle of gravity as a blood saver was firmly fixed in his mind.

This method is so commendable and so little employed that it seemed best to write this brief article as a hint to writers on obstetrics and especially as a suggestion of great value to the many engaged in obstetrical operations.

OUR RELATION TO ONE ANOTHER.

By JOHN M. KENNEDY, M. D.,

KNOXVILLE, TENN.

The practice of medicine, being the application of knowledge to the prevention, cure, and alleviation of disease, is easily the first of all callings. Its successful application lengthens human existence, diminishes human suffering, and increases human happiness. The past is dead and gone forever; the future is something we know naught of; so let us do to-day, in the ever present now, our duty to humanity and to one another.

The members of the medical profession seem to be a class set apart. They have the distinctive title of doctor, although it is applied sometimes to those who have achieved distinction in other work. It is, however, in the vernacular, the title of the physician. We are colleagues, confrères, engaged in the world's greatest work; and it is well to understand our relation to one another. The Golden Rule, given by the first of all teachers, the Great Physician, would seem to cover the ethics of the situation,—"Therefore, all things, whatsoever ye would that men should do to you, do ye even so to them!" or, as the next great teacher, second only to the Divine One, has it,—"This, above all, to thine own self be true, and it must follow, as the night the day, thou canst not then be false to any man."

It is peculiarly graceful and proper for those younger in the profession to ask and receive counsel and assistance from those older and more experienced. On the other hand, it is eminently proper for those fresh from the centres of medical learning, who have had the advantage of witnessing the technics, and seeing the work of the great leaders of the profession, to give of their more recent and up to date knowledge, both in private and in a medical society, to those who have not had this advantage, avoiding, however, the egoism of young Doctor Know-It-All, and the presumption of the immature specialist.

It is certainly an important duty we owe to one another, to meet in the medical society, there to give and take as opportunity offers.

I would commend for careful consideration the principles of medical ethics adopted by the American Medical Association in lieu of its former code of ethics. I think it would be to our advantage and would assist to keep up good fellowship and the solidarity of the profession, if every one would read carefully these principles at least once a year, and, particularly, Chapter II.

It is a common thing for outsiders, the laity so called, to speak to one physician disparagingly of another, evidently thinking that such remarks are pleasing to the one addressed. This, I think, we may in a great measure suppress by showing that such remarks are displeasing and that we do not consider it complimentary to be elevated by the pulling down of another. Always speak well of a worthy colleague, when it can be done with a proper regard for truth and honor, avoiding, however, that most contemptible of all ways of speaking of another, damning with faint praise.

There is a certain etiquette of consultations, a knowledge of which facilitates business and brings out more fully a free expression of opinion. When three or more physicians are in consultation (and here let me emphasize, that it is exceedingly discourteous to fail to be prompt at the time appointed for the consultation) the attending physician is in the attitude of chairman. He should arrange for a full and complete examination of the patient by the others. He should give the history, diagnosis, prognosis, and treatment of the case up to that time. He, the attending physician, or chairman of the consultation, as he may appropriately be called, after learning that all have finished investigation of the case to their entire satisfaction, should now call on the youngest member of the consultants to give his opinion, and then call on the other members in succession according to priority in the profession. All having expressed themselves, including the chairman, and a general discussion having been indulged in to the fullest and freest extent, it is in the province of the chairman to announce the diagnosis accepted by the consultation, and to outline or state specifically the treatment agreed upon; and also to state the prognosis. All this is evidently necessary in the interest of harmony and for the good of the patient. If this is done to the expressed satisfaction of all present, the consultation is dissolved, and the consultants have no further connection with the case. If, however, the consultants do not agree and a mutually satisfactory compromise in the interest of the patient cannot be reached, it is the privilege and duty of the dissenting member or members to withdraw from the consultation.

There is one word which covers this whole matter, a guide which points unerringly the correct way under all circumstances; which stands out bright and beautiful as the morning star. That word is *ethics;* a word loved by all true members of our profession.

Ethics is duty! Ethics is moral conduct! Ethics is that force which smooths the rough places of life; it is the oil of gladness; the perfume of social intercourse. Ethics is harmony; by ethics is the universe upheld, and suns and stars are guided in their course. Ethics is power and honor, justice, goodness, and truth. Ethics is the mailed hand that rights every wrong, that brings order out of disorder, that conquers chaos. Ethics is the voice of the Lord God Omnipotent calling the wayward sons and daughters of earth back to the Father's house. Ethics, properly applied, is paradise regained. Ethics is Peace, good will to men. Ethics is God incarnate, saying to the waves of trouble and sorrow that threaten to engulf helpless humanity, Peace, be still! Without ethics life would be a burden and the question, Is life worth living? would indeed be pertinent.

Therefore, O ye sons of Hippocrates! Be good! Be pure! Be kind and gentle! Be honest and fearless! And it must follow, as the day the night; as sure as right is better than wrong; as sure as strength is better than weakness; as sure as health is better than sickness; as sure as joy is better than sorrow; so sure will you be *ethical.*

Therapeutical Notes.

Birch Leaves as a Diuretic and Solvent of Renal Calculi.—Jaenicke finds that a decoction of birch leaves, in the proportion of a heaped teaspoonful to 250 c. c. of boiling water, boiled together for five to ten minutes, and taken in doses of two cupfuls *per diem,* to be an effective remedy for renal calculi. At first calculi the size of a pea were discharged, later the concretion was passed in the form of coarse sand.

Theobromine as a Hypnotic.—Theobromine is generally prescribed as a diuretic. The fact that it has decided hypnotic effects, which render it valuable in the treatment of certain cases of insomnia in cardiac affections, has, according to Gallavardin and Pehu, been overlooked. Even in relatively small doses, of 8 to 32 grains, it gives the patient a quiet and refreshing sleep. It is best given in 8 grain cachets, one to four of which are taken during the afternoon or evening.

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University Medical College, Kansas City, Mo.—The opening exercises of the University Medical College were held at the college building at Tenth and Campbell Streets, Kansas City, on September 6th. An interesting programme was rendered under the direction of Dr. S. C. James, dean of the college. After the close of the programme an informal reception was given in honor of the students and their friends.

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A POSTERIOR INCISION TO REACH THE VERMIFORM APPENDIX.

We are inclined to think that in many cases of operative intervention on account of appendicular disease it may be advantageous to approach the seat of trouble through Petit's triangle, as is recommended by Dr. John G. Sheldon, of Telluride, Colorado, in the September number of the *Annals of Surgery*. Petit's triangle, it will be remembered, is bounded by the anterior border of the latissimus dorsi, the posterior border of the obliquus abdominis externus, and the crest of the ilium. Dr. Sheldon would make a vertical superficial incision and a transverse deep incision. The first, extending upward from the crest of the ilium along the border of the latissimus dorsi, would lay bare the outer border of the quadratus lumborum, the lumbar fascia, and the aponeurosis of the transversalis. The second, hugging the iliac crest, would divide the lumbar fascia and the transversalis, exposing the parietal peritonæum directly over the cæcum and the ascending colon. In the majority of cases, Dr. Sheldon remarks, the appendix is found behind the cæcum, with its free extremity pointing upward. "When the patient is lying in a straight position," he adds, "the appendix is below the line of incision; but I have found that when the patient is placed in the lateroprone position, with a large pad under the loin, the cæcum protrudes into the angle between the crest of the ilium and the outer border of the quadratus lumborum muscle."

The main arguments in favor of the lumbar incision are the facility with which drainage of the wound may be carried out with the patient lying on his back and the diminished danger of a subsequent hernial protrusion through the divided structures. As to the freer drainage, we imagine there can be no doubt, provided the dorsal decubitus predominates, as it generally does in an acute illness. Concerning the decreased liability to hernia we are not so sure. But the drainage is very important in many cases, and Dr. Sheldon's plan for promoting it seems likely to prove efficient. In cases in which drainage is not necessary the lips of the wound are sutured in layers. Dr. Sheldon has found the posterior operation more rapid than the anterior and followed by less shock and abdominal distress.

SALUTARY PLEURISY.

It has often been observed that an attack of acute pleurisy hastens to a remarkable degree the process of recovery in curable cases of tuberculous disease of the lungs. The observations on record have recently been collated in a Paris thesis by M. E. de Cisternes, and in the *Journal des praticiens* for August 27th M. Sabourin, who refers to de Cisternes's work, adds six cases of his own and discusses the rationale of the cure.

The enforced rest incident to an acute illness counts for a good deal, M. Sabourin admits, but he thinks it is not in itself sufficient to explain the remarkably rapid results observed, five or six times as rapid as those that take place in cases of a similar character in which no pleurisy occurs. It might, he says, cure the contingent pulmonary lesions, but not the actual tuberculous process itself, at least not so quickly. He therefore invokes in explanation the action of derivation of the kind referred to in the old doctrine that two morbid processes cannot go on actively in the organism at the same time. But we must remember that this theory has been reduced almost to the vanishing point by modern observation, and we cannot say that M. Sabourin's advocacy of it in explanation of the curative effect of intercurrent pleurisy in tuberculous disease is quite convincing. In his argument he relies to a considerable degree on observed facts of the subsidence of tuberculous disease in one part of the body as an apparent consequence of its outbreak in another part. In such cases, it may well be objected, the *post hoc ergo propter hoc* style of deduction hardly holds good; moreover, it may be doubted if the occurrence in question is anywhere near as common as the failure of tuberculous disease to cease in one part on its appearance in another. But the explanation is perhaps of little importance compared with the practical value of insistence on the fact of the occasional salutary effect of pleurisy.

SOME STRANGE ARTICLES OF FOOD.

Far from being unique in the matter of their comestibles, the Digger Indians seem to be outdone by certain peoples rated far above them in the approach to civilization, to judge from a recent article by M. G. Durand, published in the Marseilles *Réveil agricole* and summarized in the *Echo médical du Nord* for August 7th. The writer deals principally with the use of insects as articles of food in various parts of the world, and the number of kinds so employed is great enough to lead him to exclaim that one may say that everything is eaten.

Among the *Coleoptera,* there is a beetle which, though greatly dreaded by European agriculturists, is turned to account as an article of food in various ways, sometimes in the same manner as the shrimp, at other times in the form of a soup, the latter being much esteemed in Germany. Fifty fine beetles are deprived of their wings, reduced to a paste, and fried, and from this mass an excellent soup is made. The larvæ of the capricorn beetle and of the horn beetle, plump and white, found in worm-eaten wood, were eaten by the ancient Romans, and in the West Indies the larvæ of the stag beetle are thought very palatable.

Of orthopterous insects, there is the cockroach, broiled and eaten by the Creoles of Bourbon, also the locust, on which John the Baptist subsisted in the desert, now consumed by the Arabs in " couscoussou." In certain cities of Asia and Africa, says our author, the locust is a regular article of commerce; the natives dry it, salt it, and sell it strung in the form of chaplets, to be eaten raw, roasted, boiled, or preserved, all that is necessary being to remove the head and wings.

Of the *Hymenoptera,* certain bees and ants are used as food, the bees being eaten in Ceylon. By reason of the formic acid contained in the ant, that insect is said to impart a very agreeable and altogether peculiar flavor to dishes into which it enters as a component. In Africa ants are cooked in butter, in Brazil they are prepared with a resinous sauce, and in Siam their eggs are highly esteemed. The *Hemiptera* furnish the grasshopper, considered a dainty among the Greeks, and a species of bug of the ova of which the Mexicans make excellent cakes.

The silk worm, of the *Lepidoptera,* is accounted strengthening by the Chinese. The chrysalis, deprived of its envelope, is fried in lard, butter, or oil; when it has been thus cooked sufficiently, it is mixed with yolk of egg, and thus is prepared a creamy product very pretty to look upon and of exquisite taste. The poor simply broil the chrysalis and season it with salt and pepper.

The *Neuroptera* include the destructive termite, or white ant, a dish of which, it is said, was once set before Livingstone by a Hottentot chief as the greatest of delicacies. In India this insect is roasted like coffee, mixed with flour, and made into excellent pastry. The termite is also eaten quite raw.

We do not know whether or not it is after having tried these dishes that M. Durand commends some of them, but we may venture to admit, that even vermin may not be unacceptable from all points of view; though this hardly reconciles one to the insect that gains surreptitious access to a culinary product.

DO WE PROGRESS?

When the writer graduated in medicine and entered the medical profession there was an abundance of patent medicines on the market, and there were fully enough quack doctors, with large claims and pretensions as to their ability to cure, to satisfy even those who patronize quacks. I remember to have made these prophecies about that time: With our facilities for education, which facilities are being constantly increased, in thirty-three years patent medicines will be a thing of the past, and the quack doctor will be known and heard of no more forever.

What is the record? There are a hundredfold more patent medicines on the market to-day than there were a third of a century ago, and the quack doctors have increased with the growth of population, and both have augmented their pretentions to cure with the great increase in the newspaper facilities for reaching a gullible public. The professions of the patient medicine nostrum vendor and the quack doctor were not half so pretentious then as they are to-day.

This is not all. There have sprung up in the last third of a century numerous new religionists, and the claims of superiority of nearly all these new devotees of religion lie largely in their pretentions to cure disease, and that, too, always without the administration of remedies. As evidence, look at some of our Spiritist friends, the Church of Christ Scientists, the Dowieites, and others. Add to them the "Animal Magnetists," so called; the Osteopaths, and others, then look at the advertising columns of our newspapers and magazines, and we are bound to say that the situation is appalling.

Efforts have been made in all, or nearly all, of the States to procure adequate legislation to deal with the evils growing out of the sale and use of so much worthless patent medicines, and of quacks; but, strange to say, with very few exceptions, such efforts have been marked with failure. Now, is there any return whatever for the millions of dollars spent for patent nostrums and paid to ignorant quack doctors? I should answer, as to patent medicines, No; as to the pretentions of quacks of every description, I should, in the main, say No; in isolated cases, Yes.

There is a class of invalids, who seem to be sick and to suffer, in whose cases there is no pathological entity. I have chosen to call such conditions "the memory of a pain." For instance, a highly nervous and delicately organized woman has an oophoritis or a metritis—a disease of one or more of those organs which dominate her being for thirty years of her existence. After a while, with or without treatment, the pathological condition ceases, and she is well; but she still suffers as she did when the pathological condition existed. The subjective mind, which is endowed with a prodigious memory, refuses to give up the pain. This mind existed, no doubt, before there was a brain, or an objective mind, and has little control over its own actions; hence the pain is just as real to the patient as it was when a cause for pain existed. While it is true that the objective, or brain mind, usually dominates and controls the subjective, or spinal cord, mind, yet, for some reason, in instances of this kind it does not do so. Treatment—ordinary treatment—is utterly useless in such cases. Such persons continue to suffer for years, and often become bed-ridden for life.

Now comes the Spiritist, the Hypnotist, the Christian Scientist, the Animal Magnetist, the Dowieite, or the Osteopathist. The Christian Scientist tells the patient to shut her eyes, to "become perfectly passive," to repeat certain words, and to deny the existence of pain, and especially her own pain—in short, to permit her objective mind to take charge and control of the faulty subjective—the one thing that has been needed all the time. The Spiritist does practically the same thing, the Hypnotist suspends the operation of the objective mind and himself dominates and controls the subjective, the Animal Magnetist rubs and blusters, talks to the patient, and tells her she is getting well—takes charge of her objective mind, in short, and controls the weak, vacillating "cord mind," and, no matter which treats the case, the woman gets well—this to the scandal and shame of the profession of medicine, which should study and understand such things and should never permit such a case to go into the hands of such people. If those pretenders would stop here, if they understood the limitations of their powers and would stop at such limitations, no one could complain, but they will treat pneumonia, fibroid and ovarian tumors, tuberculosis, and hip joint and other diseases, and the harm they do in their failures in the ninety-nine cases where there is a pathological entity nullifies the good they do in the one case where there is none.

Mind you, I have fought every form of fraud and pretense in the matter of the treatment and cure of disease too long ever to yield one foot of ground to them which does not legitimately belong to them; but we should recognize the truth, and every physician should understand how to treat and relieve such cases, and never permit them to go into the hands of those who are frauds and pretenders in ninety-nine cases out of every hundred they pretend to treat.

WILLIS P. KING.

THE SYNTHESIS OF ATOMS.

Those of us who learned our chemistry from the textbooks of a few years ago would have been quite at sea in following the address delivered by Sir William Ramsay, the retiring president of the Society of Chemical Industry, at the meeting of that body held recently in New York, for Sir William assumed, as he was warranted in doing, so far as the majority of his auditors were concerned, a familiarity on their part with the recent advances in chemistry and physics which few physicians of several years' standing could lay claim to, unless indeed they happened to be specially interested as teachers of chemistry. The older definitions of an element as a substance which could not be decomposed into other substances, and of an atom as the smallest portion of matter capable of retaining its identity, have been practically abandoned, and we now speak of "corpuscles" which combine to form atoms.

Sir William informed his auditors that we were probably on the brink of the discovery of a synthesis of atoms, which atoms in turn might disintegrate into the ordinary elements. This disintegration seems indeed to take place with radium, the newly discovered element, which upon standing gives off radiations, emanations, or what not, which change into helium. It would seem therefore that the dreams of the alchemist concerning the transmutation of metals were about to be realized, though possibly not in the precise direction which had been looked for by those workers of the Middle Ages. While Professor Ramsay did not make reference to the therapeutic applications of radium in his address, he did refer to that phase of its possible application in one of the many interviews with him published during his stay here.

Although the immediate application of the higher chemistry to medicine is a matter of the future, physicians cannot but be interested in the advances which have made possible the synthesis of the sugars and which now promise us, so Professor Ramsay tells us, the synthesis of albumin, for Professor Fischer has practically accomplished this important step toward the synthetic preparation of food stuffs.

THE "DIFFERENTIAL" DIAGNOSIS.

In our issue for September 10th we published an article by Dr. Max Talmey from the title of which the word differential was omitted. The omission, in Dr. Talmey's opinion, makes the title misleading. Without committing ourselves to such an opinion, we cheerfully make mention of the matter at Dr. Talmey's request.

SUGGESTIVE THERAPY.

An article in *Journal des praticiens* for August 13, 1904, in suggesting the alternation of hypodermic injections of lecithin and the glycerophosphates with those of sodium cacodylate in the treatment of tuberculous peritonitis, states that in all chronic diseases such alternations are valuable, not only in maintaining the action of a given drug without causing overtolerance, but on account of the moral effect on the patient's relatives. The writer thinks that it is beneficial for the latter to have their routine varied from day to day to lessen the desire for a change of medicine or even a change of attending physician. Does not this convey a useful hint that suggestion is valuable, not only to the patient directly, but indirectly through the anxious attendants? Anything that creates an atmosphere of hope and confidence around the sick bed cannot be alien to the physician.

Obituary.

FRANZ RIEGEL, M. D.,

OF GIESSEN.

One of the latest branches of medical science has sustained a severe loss in the death of one of its founders. There was a trefoil, the root of which was the old master Kussmaul, and three leaves originated from this root. These three investigators created the diagnostic lavage of the stomach and provided a home for it in scientific medicine. They are von Ziemssen, Riegel, and Leube. To the latter two is due the credit of having independently of each other introduced the stomach tube for diagnostic purposes. The first of these two has the credit for his studies of the treatment of gastric ulcer. From this root two leaves now have gone, von Ziemssen and Riegel, but great is the number of those who have risen around them. Their teachings live in their pupils in work and in deed. Ewald and Fleiner, Pentzold and Boas, von Noorden and Reichmann, Grüneberg, Schüle, and Honigmann herald to succeeding generations the works of the master. But a period in the history of medicine has come to a close with the sinking of that clover leaf which sprouted from the fruitful mind of the German Hippocrates in the second half of the nineteenth century.

Franz Riegel, on August 26th, after long suffering, followed the last call, which even the most active and most obstinate have to obey. It is a rigid life of work which presents itself to our eyes in the retrospect, the life of the profound investigator, the experienced practitioner, the able physician, the man without prejudice, the faithful friend, and unselfish husband and father. On February 9, 1843, Franz Riegel was born, the son of a physician in Würzburg. His education, from the gymnasium to the finish at the university, he received in his native town. He passed an excellent examination, which gave him a stipend by means of which he could visit Vienna, and he became assistant to the Julius Hospital and to Bamberger. In 1872 he began his career as an academic teacher with lectures and experimental pathology. He was still in Würzburg when Bamberger left for Vienna, and Gerhardt took his place. Then Riegel followed his vocation and was called to the city of Cologne. It was especially Virchow and Bamberger who selected him, only thirty-one years of age, to take charge of the Bürgerhospital. During five years of service there Riegel made that hospital what it is to-day—one of the first places for the cultivation of science in Germany alongside of our universities. In 1879 Riegel occupied the chair of a professor at the University of Giessen, which position he kept until his death. As in Cologne, his work in Giessen began in the poorest conditions, in an academic hospital which was in an old barracks. Half of it was reserved for surgery and half for internal medicine. He fought until he succeeded in having a new clinic on the Seltersberg. Riegel's scientific activity was very manifold. He was not only the specialist in diseases of the stomach, as one might infer from what was said above; the pioneer works which laid the foundations were his contributions to our knowledge of the pulse and the physiology and pathology of the heart. His investigations of the venous pulse, his work on laryngeal innervation, bronchial asthma, and acute nephritis, and above all his numerous investigations on digestion and its diseases were original. Riegel also was the first who knew the significance of Pawlow's method of aiding our knowledge of the activity of the stomach, and I remember how proud it made him when he told me that Leube had announced his intention to learn from him Pawlow's method. Also a number of pharmacological experiments we owe to his ever active mind, including those on jaborandi, apomorphine, caffeine, and atropine, and during the last year it was his intention to study the antagonists of atropine. At least he opposed my own plans of studying this matter under his guidance, saying that he had been eager for years to procure the pure drug for this purpose. His last work has probably a far reaching influence upon the clearing of the views which we entertain on the different kinds of "gastrosuccorrhœa" and hyperacidity. The second edition of his textbook, which he intended to have quite newly written, it was not his privilege to conclude. The first part has been published, and, as Pentzold says, the fact that this extensive work, comprising a part of Nothnagel's *Encyclopædia*, had to be printed in a second edition, is an evidence of its value. A great deal has been lost for science by the early departure of the restless worker. Whoever has seen the handsome man with the wavy, lightly curling hair and the expressive eyes after his laborious morning's work in the clinic office and clinic college hasten to dinner to his cosey villa must have been surprised to see the graceful figure of the man of science walk through the vestibule of the clinic, with the thoughtful downward glance, to begin work again, during which time he did not like to be disturbed. For his patients he always was ready to have a pleasant hour, and for little attentions he was touchingly grateful. For music and art he was enthusiastic with his whole soul.

A plain, aristocratic character, a serious investigator, a great physician has gone forever with the death of Riegel. His works will make him live in us forever.

WALTHER NIC. CLEMM.

News Items.

Society Meetings for the Coming Week:

MONDAY, *September 19th.*—New York Academy of Medicine (Section in Ophthalmology); Hartford, Conn., Medical Society; Chicago Medical Society.

TUESDAY, *September 20th.*—New York Academy of Medicine (Section in General Medicine); Buffalo Academy of Medicine (Section in Pathology); Ogdensburgh, N. Y., Medical Association; Syracuse N. Y. Academy of Medicine; Medical Society of the County of Kings, N. Y.; Baltimore Academy of Medicine.

WEDNESDAY, *September 21st.*—Woman's Medical Association (New York Academy of Medicine); New York Society of Dermatology and Genitourinary Surgery (private); New York Academy of Medicine (Section in Genitourinary Diseases); Medicolegal Society, New York; Northwestern Medical and Surgical Society of New York (private); New Jersey Academy of Medicine (Newark).

THURSDAY, *September 22nd.*—New York Academy of Medicine (Section in Obstetrics and Gynæcology); New York Orthopædic Society; Brooklyn Pathological Society; Brooklyn Society for Neurology; Roxbury, Mass., Society for Medical Improvement (private); Pathological Society of Philadelphia (Conversational); Church Hill Medical Society of Richmond, Va.; New York Celtic Medical Society.

FRIDAY, *September 23rd.*—New York Clinical Society (private); New York Society of German Physicians; Yorkville Medical Association, New York (private); Philadelphia Clinical Society; Philadelphia Laryngological Society.

SATURDAY, *September 24th.*—Harvard Medical Society, New York (private).

Changes of Address.—Dr. Fred Guttmann, to 976 Bedford Avenue, Brooklyn, N. Y.; Dr. A. S. Henry, to 205 Sanford Avenue, Flushing; Dr. John Logan, to 415 Lenox Avenue.

NEW YORK.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending September 10, 1904:

	Week end'g Sept. 10.		Week end'g Sept. 3.	
	CASES.	DEATHS.	CASES.	DEATHS.
Measles	40	8	57	3
Diphtheria and croup	176	25	200	28
Scarlet fever	60	2	50	5
Smallpox	..	..	..	..
Chickenpox	2	..	..	..
Tuberculosis	391	139	334	162
Typhoid fever	146	21	118	13
Cerebrospinal meningitis	..	15	..	10
Totals	815	210	779	221

Statistics of the Borough of Queens.—During the week ending September 10th there were 61 deaths, 66 births, and 18 marriages in the Borough of Queens.

Arrival of Professor Orth.—Dr. J. Orth, professor of pathology and dean of the University of Berlin, arrived on the Red Star steamship *Zeeland* on September 5th, accompanied by his wife. Professor Orth, upon the death of Professor Rudolph Virchow, was called by the faculty of the University of Berlin from Göttingen to fill the vacancy.

Birth Records Improperly Indexed.—Health Commissioner Darlington states that the clerks employed in searching the birth records in order to issue certificates to the parents of school children were handicapped by the fact that the records are neither indexed nor properly catalogued. "I will ask for an appropriation of $75 000," said the commissioner, "to enable us to properly index these birth registrations."

Restrictions on the Sale of Carbolic Acid.—At the conclusion of the regular meeting of the board of health, Commissioner Darlington announced on September 7th that the following amendment had been made to the sanitary code, to be known as section 66a: "No phenol, commonly known as carbolic acid, shall be sold at retail by any person in the city of New York, except on a prescription of a physician, when in a stronger solution than 5 per cent."

Civil Service Examinations for the State and County Service.—The State Civil Service Commission announces general examinations to be held October 8, 1904, including the following positions: Assistant in biology and histology, cancer laboratory; inspector, State board of pharmacy. Applications for these examinations must be made on or before October 3rd. Full particulars of the examinations and blank applications may be obtained by addressing the Chief Examiner of the Commission at Albany, Charles S. Fowler.

Fighting Imitation Fruit Juices.—Progress in the crusade against the use of citric acid as lemon juice and other bogus fruit juices, recently started by the New York Fruit Exchange, was reported at the meeting of the board of trustees of that organization on September 12th. President Victor L. Zorn announced that the health department had taken the matter up and that Dr. Darlington had instructed Supervising Inspector Bayard C. Fuller to devote his attention to this subject. The health department is empowered by law to confiscate and destroy all such preparations when found in the possession of dealers. Mr. Zorn, therefore, recommended, and the board of trustees concurred in the recommendation, that the policy of independent prosecutions by the fruit exchange be dropped. The exchange will continue to collect evidence against sellers of the imitation and adulterated fruit juices, and will turn it over as collected to the health department.

Renewal of the Crusade Against Trachoma.—With the opening of the public schools the department of health will renew its active struggle against trachoma. Inspectors will visit every building and every room as soon as possible after the regular work begins, and the eyes of every child will be examined for traces of the disease, which is gradually beginning to give way under the continued assaults of the department. Children suffering from trachoma will be kept from school until they have undergone an operation or treatment with sulphate of copper has begun. The department will perform the operation without charge and the caustic treatment will also be free. A certificate from any reputable physician that a child has begun treatment will obtain readmission. The school children who decide to undergo an operation will have to wait their turn at the new trachoma hospital the department has opened at West One Hundred and Sixteenth Street and Pleasant Avenue. From five to six operations a day is the capacity of the hospital. Free treatment will be given at this place and at a small building on the grounds of Gouverneur Hospital, on the East Side.

A Heavyweight at Bellevue Hospital.—The stoutest patient that Bellevue Hospital ever had is at present at that institution, and will be transferred to-day to the hospital on Blackwell's Island. He is Michael Glynn, twenty-four years old, a watchman. Glynn is only five feet nine inches in height, but he weighs 410 pounds. He fell from a car the other day and injured his knee. He was at first placed in the surgical ward, but erysipelas developed and he was transferred to another room. To make this transfer the ingenuity of the hospital attendants was put to a test. An improvised stretcher of heavy wood reinforced with iron supports was used. Four men, the strongest at the hospital, were called in to carry the patient a distance of seventy-five yards to his new quarters. Glynn was moved from the stretcher to a bed, but the bed broke down under the weight. A heavy reinforced spring was found, and since then Glynn has been comfortable. One of the rules at the hospital is that every patient transferred or discharged must leave with a complete suit of clothes. When Glynn was injured he was wearing no coat, and the clothes room at Bellevue was ransacked to find a coat for him. Nothing that would come anywhere near fitting him could be found, so two coats were taken, ripped apart, and a garment called a coat was made from the pieces, so that the hospital rule might be complied with.

PHILADELPHIA.

Changes of Address.—Dr. John F. Sinclair, to 216 South Forty-first Street; Dr. W. G. B. Harland, to 223 South Seventeenth Street.

Bequest to Home for Colored Cripples.—By the will of Laura J. Bonzano, the House of St. Michael and All Angels for Colored Crippled Children receives $1,000.00.

Belmont Filter Plant Inefficient.—The newly constructed filter beds, known as the Belmont Filter Plant, which were recently put in operation, have been found to lack 6,000,000 gallons daily of supplying the district for which they were designed, West Philadelphia.

Violations of the Pure Food Law.—Twenty-four persons, the majority of them milkmen, were indicted by the Grand Jury on September 8th for violations of the pure food law. The State authorities propose in the future to have cases of this character tried by the courts instead of allowing them to be settled in the magistrates' courts.

The Health of the City.—The following contagious diseases have been reported for the week ending September 3:

	Cases.	Deaths.
Typhoid fever	194	10
Scarlet fever	32	1
Smallpox	1	0
Diphtheria	41	3

The total death rate for the week was 371 in an estimated population of 1,408,154, corresponding to an annual death rate of 13.70 per 1,000 population. There have been the following deaths from other contagious diseases, which are now reportable to the board of health: Whooping cough, 2; tuberculosis of the lungs, 46; other forms of tuberculosis, 5; pneumonia, 14; erysipelas, 2; diarrhœa and enteritis, under 2 years, 49; cholera morbus, 1. The meterological observations have shown no unseasonable variations.

Anopheles Maculipennis at League Island.—Dr. M. F. Gates, Surgeon, U. S. N. in charge of the medical department at the League Island Navy Yard, has succeeded in identifying specimens of anopheles maculipennis among the mosquitoes inhabiting the waters about the navy yard. Energetic and partially successful efforts have been made during the summer to render the pools and channels in and about the yard unsuitable for the breeding of mosquitoes of any kind. A portion of the neck adjoining the yard is being improved by filling in under city auspices for the new League Island park, but the region still presents extensive mosquito breeding grounds which, it is to be hoped, will, in time, be removed, and the sanitary conditions surrounding this rapidly developing and important navy yard correspondingly improved.

Cases of Criminal Malpractice.—Dr. Matthew McVickar was tried for causing the deaths of Sarah Hughes and Jennie Sloan by criminal operations on August 4th. The attorney for the defendant, in moving that the indictments be quashed, gave as one of the reasons for his request that the coroner's inquest was not conducted according to law, in that it had not been held over the bodies of the dead persons. The judge called attention to the fact that it is not the custom in Philadelphia county to hold the coroner's inquests over the bodies of the victims, although the law so requires. The application for the quashing of the indictments was refused; but on the day following the body of one of the victims of the alleged criminal operator was exhumed, so as to be identified by the coroner's physician and a brother of the dead woman. The defendant was acquitted of the crime because several important witnesses for the commonwealth could not be found.

Mrs. Ida Krause was arrested on September 6th charged with causing the death of a young woman by a criminal operation.

The Dental Course at the University of Pennsylvania.—The following circular has been sent out by the dental department of the University of Pennsylvania: Dear Sir: We regret to announce that after having established a four years' curriculum obligatory upon all dental colleges in its membership and maintained it for one college session, the National Association of Dental Faculties, at a special meeting held July 16th, in St. Louis, Mo., rescinded the four years' regulation and reestablished a course of three annual sessions as the standard curriculum for the attainment of the degree Doctor of Dental Surgery. The University of Pennsylvania has used every legitimate means within its power to make the four years' course the standard of dental education in America. The decrease in the number of matriculants for the session of 1903-04, the first year of the four years' course, was felt by many of the dental colleges to be a menace to the continued existence of some of the institutions and as a consequence the sentiment in favor of a return to the three years' standard developed to an extent that threatened to disintegrate the National Association of Dental Faculties and initiate a policy of competition among the colleges which would work disaster to the cause of dental education in America. To prevent such an unfortunate result a motion to return to the three years' standard was adopted by the faculties' association upon the grounds of expediency and as a compromise measure. The University of Pennsylvania consistently opposed this course, but was finally overruled by the action of the majority. As practically all of the dental colleges in America have announced their intention to graduate students upon the completion of the three years' course this institution is compelled in self defence to adopt the same standard. The University of Pennsylvania regards this return to the three years' standard as merely a temporary measure, and believes that a four years' course will ultimately be established upon a firm basis. To that end its energies and influence will be directed for the reason that experience has demonstrated that three years is an insufficient length of time to train dental students for the efficient practice of their profession, according to the university standard. Pending the establishment of an obligatory four years' curriculum the department will offer an optional fourth year course upon the completion of which students will graduate with a mark of special distinction. This explanation is made at the request of the administration that you may be reliably informed as to the circumstances which have influenced our institution in taking this important step, and which it is hoped may meet with your approval. Edward C. Kirk, dean.

GENERAL

The Speaker of the English House of Commons is the son of a medical man, the late Dr. James Manby Gully, of Great Malvern.

Typhoid Fever in Washington, D. C.—Seventy-three new cases of typhoid fever were reported in Washington during the week ending September 10th.

Dr. John Hauenstein, of Buffalo, now in his eighty-third year, celebrated the seventy-third anniversary of his arrival in that city on September 7th.

Gowanda, N. Y., State Hospital.—Dr. Clarence A. Potter, of Gowanda, has been appointed first assistant physician at the Gowanda State Hospital.

Strike on the Harvard Medical School Buildings.—A strike of bricklayers working on the Harvard medical school buildings in Boston has delayed construction for some time.

Deaths by Violence in Chicago.—There were three hundred and twelve deaths by violence in Chicago during the month of August, of which forty-two were suicides and forty-eight caused by railway accidents.

The Wesleyan College of Macon, Ga., to Have a Hospital.—Wesleyan College is to have an infirmary or hospital department. The executive committee of the board of trustees has appropriated $3,000 to be used for the purpose.

Tenement House Law in Buffalo.—Twelve tenement houses were ordered closed, on September 10th, by the health commissioner of Buffalo. Unless they are vacated by October 1st, the tenants will be dispossessed.

The Michael Reese Hospital, Chicago.—Plans for the new Michael Reese Hospital, on the site of the present institution at Twenty-ninth Street and Groveland Avenue, Chicago, are being prepared. The new buildings will cost $350,000, and will be thoroughly fireproof. When all the plans are finished a committee will make choice between them.

Louisville Nurses Must Know How to Cook.—Chairman Brennan, of the board of public safety, is arranging to start a diet room in the Louisville, Ky., City Hospital, where the trained nurses will be taught how to cook food for sick people. Cooking will be one of the studies trained nurses will be required to pursue hereafter before they can graduate.

Rabies in Ithaca.—Owing to the fear of an epidemic of rabies in Ithaca, N. Y., the health officials of that city have asked aid of the State health department. A mad dog ran amuck in Ithaca some two weeks ago inoculating several other animals. Cultures from the poisoned animals have demonstrated the nature of the disease, and citizens, who have been bitten, are in a panic.

Medical School of Laval University, Montreal.—The lectures in the veterinary department of this university's medical school will begin on September 30th. Bacteriological, chemical, and pathological laboratories will be added for the exclusive use of veterinary students. M. Généreux, V. S., and Professor William Derome, a former student of the Pasteur Institute, of Paris, have been added to the teaching staff

The United States Pharmacopœia.—A statement of much importance to the medical profession of the country, to druggists and teachers of chemistry, was made by S. A. D. Sheppard, treasurer of the American Pharmaceutical Association, at the meeting held recently in Kansas City. This volume is revised each ten years. This time, Mr. Sheppard said, great delay had been caused in getting the book ready, and it cannot be issued before January, 1905. Under the law it cannot be used or become authoritative for ninety days afterward, or until April. Consequently, the new pharmacopœia cannot be used in the pharmaceutical schools this winter and teachers should make their arrangements accordingly.

Manitoba Medical College.—Lectures in Manitoba Medical College began on September 5th. The opening is earlier this year than ever before, examinations being brought on earlier in the spring. University classes do not open until October 1st, so the university lectures as arranged for medical students to take this year cannot begin until that time. There is every indication that the attendance at the medical college this year will be unusually large, the freshman class being likely to reach fifty. The registrar of the college, Dr. E. S. Popham, has had a number of inquiries, too, from students who, having taken a part of their course in eastern medical schools, wish to finish their course there. It is likely the number of students will be swelled in this way.

Sisters of Mercy Hospital, Buffalo.—The Aid Society of the Sisters of Mercy Hospital held a meeting on September 11th at the hospital for the purpose of making plans for the opening of the new Mercy Hospital, which will occur on September 24th. The hospital will be nearly ready at that time and the aid society, with the sisters in charge, are making every effort to equip the hospital with necessary articles upon its completion. For that purpose the committee has decided to hold a series of receptions, one each on Saturday, Sunday, and Monday, September 24th, 25th, and 26th. A series of showers will be given to furnish the hospital. On Friday afternoon of next week a blanket shower will be held; on Thursday, September 22nd, a crockery shower; a linen shower will be held on Monday, September 26th.

A California Woman Physician Honored.—Another honor has fallen on a clever young California woman who has already won unusual distinction. Dr. Annie G. Lyle has been commissioned by Governor Pardee to represent California at the coming American international congress of tuberculosis, to be held next month in St. Louis. President Jordan, of Stanford, has also appointed her to represent the university at the congress, which will be an important meeting of medical scientists from all over the world. Later Miss Lyle will represent both the State and Stanford University at the congress on charities at Quincy, Ill. Dr. Lyle is a San Francisco girl, who graduated from Stanford in the class of '95. She then took up the study of medicine at Johns Hopkins, graduating with high honors in 1901.

Health Report of Boston.—The total number of deaths reported to the board of health, for the week ending September 10th, is 192, against 197 the corresponding week last year, showing a decrease of 5 deaths, and making the death rate for the week 16.30. The number of cases and deaths from infectious diseases reported this week is as follows: Diphtheria 38 cases and 2 deaths; scarlatina, 7 cases and 2 deaths; typhoid fever, 53 cases and 3 deaths; measles, 5 cases; tuberculosis, 29 cases and 20 deaths. The deaths from pneumonia were 14, whooping cough 2, heart disease 15, bronchitis 1, and marasmus 8. There were 10 deaths from violent causes. The number of children who died under 1 year of age was 61, the number under 5 years of age, 77. The number of persons who died over 60 years of age was 28. The deaths in public institutions were 63. Deaths from cholera infantum were 14, against 4 during the corresponding week of 1903; from diarrhœa 20, the same as in 1903.

Cumberland Valley Medical Association.—The second annual meeting of the Cumberland Valley Medical Association was held at Blue Mountain House, Hagerstown, Md., on September 6th. Many physicians from Maryland and Southern Pennsylvania were present. The following officers were elected: President, Dr. V. M. Reichard, of Fairplay, Md.; vice-presidents, Dr. J. M. Humrichouse, of Hagerstown; Dr. T. H. Weagley, of Marion, Pa.; Dr. A. R. Allen, of Carlisle, Pa.; secretary, Dr. J. J. Coffman, of Scotland, Pa.; assistant secretaries, Dr. J. B. McCreary, of Shippensburg, Pa.; Dr. P. B. Montgomery, of Chambersburg, Pa.; Dr. D. C. R. Miller, of State Line, Pa.; treasurer, Dr. J. J. Koser, of Shippensburg, Pa. A banquet was held in the evening and the society decided to meet next year, in September, at Mount Holly Springs, Cumberland County, Pa.

The Typhoid Fever Epidemic in Newton, Mass.—While it is generally believed by a majority of the residents of Newton, and especially those in the more heavily affected sections, that the city water is the direct cause of the typhoid fever epidemic in that city, this fact has been denied by City Physician Edward R. Utley, as the result of an analysis of several samples of the water taken at several points throughout the city within the last week. Dr. Utley said in an interview: "The water was taken September 7th and 9th at five different places throughout the city, reservoir, and collecting gallery included, and on an average of the past ten years the State board of health finds the analysis was up to the average of that period. The people of Newton need have no fear as regards typhoid fever coming from the city water supply."

Oregon State Medical Society.—After electing officers and transacting other business that was chiefly routine in its nature, the fourth annual convention of the Oregon State Medical Association closed on August 31st at 7 o'clock. The association will meet in Portland again next year. The following officers were elected: Dr. George F. Wilson, of Portland, president; Dr. Mae H. Caldwell, of Portland, vice-president; Dr. W. H. Byrd, of Salem, second vice-president; Dr. W. L. Wood, of Portland, third vice-president; Dr. L. H. Hamilton, of Portland, secretary; Dr. Jessie McGavin, of Portland, treasurer; Dr. H. W. Coe, of Portland, and Dr. R. C. Coffey, of Portland, counselors. The address of President Williamson was one of the features of the session during the afternoon. He made a review of the progress of the profession during the past century, and prefaced his statements with the announcement that the medical profession had broadened as much as it had progressed. He closed his address by acknowledging the services of the prominent visitors who are in the city and whose demonstrations have assisted in making the convention a success.

Hehner's Test in the Chicago Laboratory.—During August the laboratory carried out a series of experiments to determine the nature of the reaction and the product involved in the formaldehyde test, known as "Hehner's test," commonly used in the laboratory for the detection of formalin in milk. The following results have been obtained: The reaction is one involving the formaldehyde, the casein or albumin, and the sulphuric acid. The casein appears to be an essential in this test, for pure casein in water gives the reaction with formaldehyde and sulphuric acid much better than milk does. To determine if any other constituent of milk would give this reaction, butter fat and lactose mixed with formaldehyde and sulphuric acid were tried, but did not give the reaction. From this and other experiments it was found that the reaction involved some albuminous substance, such as casein or albumin either from blood or eggs or milk, the formaldehyde and the sulphuric acid. The test seems to be specific for formaldehyde, since it is not given by the addition of other aldehydes, alcohols, chloral, glycerin, boric acid, salicylic acid, or formic acid when added to milk. Since milk containing formaldehyde always responds to Hehner's test and to the phenylhydrazin test, under proper conditions, and since other substances added to milk do not respond to these tests, we are forced to conclude that either of these tests is reliable, and doubly so when they supplement each other, as is always done in the Chicago laboratory.

Qualifications of Army Medical Men.—Surgeon-General O'Reilly, United States Army, has had so many inquiries from various sources regarding the qualifications, requirements, etc., requisite to obtain an appointment in the medical corps of the army, that he has issued a circular of information for all those interested. He states that appointments are made by the President after the applicant has passed a successful examination before the army medical examining board. Permission to appear before the board is obtained by letter to the secretary of war, which must be in the handwriting of the applicant, giving date and place of birth, and the place and State of which he is a resident, and inclosing certificates, based on personal acquaintance, from at least two reputable persons, as to his citizenship, character, and habits. An applicant must be between 22 and 30 years of age, a citizen of the United States, and a graduate of a reputable medical school legally authorized to confer the degree of doctor of medicine, in evidence of which his diploma will be submitted to the board at the time of his preliminary examination. Hospital training and practical experience in the practice of medicine and surgery are essential, and an applicant will be expected to present evidence that he has had at least one year's hospital experience, or the equivalent of this in practice. The rate of pay for the first five years is $1,600 per annum and commutation of quarters, fuel, forage, etc. At the end of five years the pay is increased to $1,800, with similar commutations. Afterwards the pay and emoluments are increased in the order of lineal promotion. There are now thirteen vacancies in the medical corps.

Health in Michigan During August, 1904.—Reports to the State board of health, by representative physicians in active general practice, in different parts of the State, show the diseases which caused the most sickness in Michigan during the month of August (five weeks ending September 3rd), 1904, as follows:

Number of reports received for this month............. 401

	Per cent. of reports stating presence of disease.		
Diseases arranged in order of greatest prevalence in this month	August, 1904.	July, 1904.	Average for August, ten years, 1894-1903.
Rheumatism	58	57	56
Diarrhœa	57	42	66
Neuralgia	43	48	50
Gonorrhœa	38	34	*
Amygdalitis	33	37	33
Bronchitis	30	31	37
Syphilis	27	28	*
Consumption, pulmonary	25	29	25
Cholera morbus	25	15	32
Cancer	23	17	*
Cholera infantum	20	8	27
Dysentery	19	5	30
Inflammation of kidney	18	18	16
Influenza	17	18	17
Typhoid fever—Enteric	13	7	16
Typhomalarial	2	1	3
Inflammation of bowels	13	10	14
Pleuritis	12	11	5
Smallpox	11	11	2
Intermittent fever	10	6	21
Scarlet fever	9	4	8
Diphtheria	7	6	3
Erysipelas	6	3	10
Remittent fever	6	5	16
Whooping cough	5	2	7
Pneumonia	3	2	5
Measles	2	8	5
Puerperal fever	2	3	2
Meningitis	1	1	1
Inflammation of brain	1	2	2
Membranous croup	0	.3	.1

At the State capitol for the month of August, 1904, compared with the average for August in the ten years 1894-1903, tri-daily observations show the prevailing direction of the wind to have been the same (southwest), the velocity 1.4 miles per hour greater, the average temperature 2.33 degrees lower, the average daily range of temperature 2.26 degrees greater, the average daily range of atmospheric pressure .07 of an inch greater, the rainfall .02 of an inch more, the absolute and relative humidity less, the day and night ozone more, and the depth of water in the observation well 6 inches more. For the month of August, 1904, compared with the average for August in the ten years 1894-1903, pleuritis, smallpox, and diphtheria were more than usually prevalent; and cholera infantum, dysentery, intermittent fever, erysipelas, remittent fever, whooping cough, pneumonia, measles, and inflammation of brain were less than usually prevalent. During August, 1904, the diseases which were usually most prevalent during the summer months in the ten preceding years were less prevalent, many of them very much less prevalent. This lessened prevalence was probably due, in great part, to the lower than average temperature during the month. The same conditions existed during the month of July, 1904, of which special mention was made in the bulletin for that month. In this connection it may be stated that, so far this year, in Michigan, the average temperature has, for each month, been lower than the average for the ten years preceding.

Including reports by regular observers and others, meningitis was reported present in Michigan during the month of August, 1904, at 7 places; whooping cough at 24 places; pneumonia at 26 places; measles at 38 places; diphtheria at 66 places; scarlet fever at 74 places; smallpox at 106 places; typhoid fever at 161 places, and consumption at 295 places. Reports from all sources show meningitis reported at 1 place less; whooping cough at 10 places more; pneumonia at 6 places more; measles at 35 places less; diphtheria at 9 places more; scarlet fever at 4 places more; smallpox at 10 places less; typhoid fever at 88 places more, and consumption at 7 places more, in the month of August, 1904, when compared with the preceding month. Henry B. Baker, M. D., secretary.

Statement of Mortality in Chicago, Ill., for the Week Ending September 10, 1904, compared with the preceding week and with the corresponding week of 1903. Death rates computed on United States Census Bureau's estimated midyear populations of 1,932,315 for 1904 and of 1,873,880 for 1903:

	Sept. 10, 1904.	Sept. 3, 1904.	Sept. 12, 1903.
Total deaths, all causes	443	491	504
Annual death rate per 1,000	11.98	13.27	14.02
By sexes—			
Males	238	292	283
Females	205	199	221
By ages—			
Under 1 year	117	119	124
Between 1 and 5 years	40	45	59
Over 60 years	2	75	80
Important causes of death—			
Acute intestinal diseases	97	86	92
Apoplexy	11	14	11
Bright's disease	28	28	34
Bronchitis	6	7	15
Consumption	49	61	57
Cancer	27	21	16
Convulsions	6	12	10
Diphtheria	7	6	10
Heart diseases	35	32	39
Nervous diseases	17	17	22
Pneumonia	19	22	22
Scarlet fever	..	3	2
Suicide	8	17	15
Typhoid fever	12	9	21
Violence (other than suicide)	37	52	26
Whooping cough	2	3	..
All other causes	82	100	112

Another week of remarkably low death rate—not for September only, but for any season of the year—is to be added to the remarkable summer record of 1904, which, according to the almanac, does not end until the 24th. The 443 deaths reported from all causes are 48, or 9.7 per cent., fewer than the 491 of the previous week; 61, or 14.5 per cent., fewer than the 504 of the corresponding week of last year, and more than one fifth (22.2 per cent.) less than the average September rate of the previous decade. As so often noted this year, and with "proper pride," the principal and the meaningful decrease is again among the under five age factor of the population, although there is also some decrease at each age period—most noteworthy in those over 60 years of age. The public water supply continues "safe" from all sources; only 19 out of 500 samples of milk and cream, or 3.8 per cent., were found below the ordinance standard; 9 fewer cases of the contagious diseases were reported than during the previous week and 58 fewer than in the corresponding week of 1903; only 2 cases of smallpox (both unvaccinated) were sent to the Isolation Hospital and public health conditions generally are quite satisfactory at the close of the week.

Pith of Current Literature.

PRESSE MEDICALE.

August 13, 1904.

Researches in Sensitiveness to Vibration.
By MARINESCO.

Vibratory Sensitiveness.—Marinesco sketches rapidly the history of the researches of Egger, Rumpf, Freitel, Dejerine, Minon, Goldscheider, Rydel, and Marie on the augmented or diminished sensitiveness to the vibrations of a tuning fork manifested in various affections of the nervous system. Marinesco has noted in tabes every possible degree of sensitiveness. In advanced cases there is anæsthesia or hypoæsthesia of the bones of all the limbs, of the thorax, and of the clavicle. The fork is useful in the diagnosis of central disease from sarcoma of the bones or neoplastic arthropathies.

August 17, 1904.

1. The Danger of Apparent Death, By ICARD.
2. Is There a Hæmoglobinuric Bilious Fever in Algiers? By GROS.

1. **Apparent Death.**—Icard, stating that a physiological definition of either life or death is impossible, defines apparent death as life with the externals of death, and believes that burial or burning alive has occurred. Apparent death always precedes death, except when the latter is what we call sudden, and Icard thinks certificates are occasionally signed prematurely. He has, however, systematically investigated all statements in the lay press regarding cases in which burial alive was alleged to have been imminent and has found none to be well founded. That the danger exists is proved by eleven well authenticated cases, and one that came immediately under the author's observation, all of which are detailed. Burial did not follow any of them, but the danger was great. Icard recommends greater care in issuing death certificates and deprecates a practice. apparently common in France, of giving certificates without previous careful examination of the supposed corpse. He has known them to be handed, signed, to the parents to be subsequently dated when death ensued.

2. **Hæmoglobinuric Bilious Fever in Algiers.**—Gros states that no such fever exists in Algiers, and that two diseases that are often mistaken for it are icterus gravis and nephritis accompanied by hæmaturia or hæmoglobinuria.

August 24, 1904.

1. The Neurofibrilli According to the Method of Ramon y Cajal, By AZOULAY.
2. Ætiology of Tuberculosis in the Country, By CLÉMENT.

1. **The Neurofibrilli.**—Azoulay's study requires his microphotographs for thorough comprehension.

2. **Tuberculosis in the Country.**—Clément practises medicine in a purely agricultural district, where there is no centre of amusement or sanitarium. He has noticed that adults are affected there more than children and almost invariably with the pulmonary form of tuberculosis. Cattle he considers to be the source of the disease, alive through the milk and its products, and dead through the meat generally insufficiently cooked. The infected meat comes from cattle slaughtered clandestinely to avoid the loss entailed by taking them to the official shambles where the government offers an insufficient indemnity. Clément believes that in a sparsely settled country district transmission from one human being to another must be extremely rare.

August 27, 1904.

1. The Phosphoorganic Principle of Seeds; Anhydrooxymethylene-Diphosphoric Acid; Its Organic Action, By GILBERT and LIPPMANN.
2. Functional Impotence of the Shoulder Joint, By MALLY.

1. **Anhydrooxymethylene-Diphosphoric Acid.**—Gilbert and Lippmann state that this compound exists in all animal and vegetable tissues and contains 26.08 per cent. of organic phosphorus. They doubt very much the therapeutic value of either the mineral phosphates or the glycerophosphates, the former obtained only from bone ash and the latter merely synthetic compounds of doubtful identity with the combined phosphorus of ovolecithin. Their new acid is extremely poisonous when introduced into the circulation, but not when given per os, causing œdema and necrosis, which inspires them with the hope that it will prove valuable therapeutically. They cite the paradox that all poisons are valuable in therapy when the proper dose has been found.

2. **Injuries of the Shoulder Joint.**—Mally studies the subject under its aspect of an employer's responsibility to an employee for injury sustained during labor. He discusses scapulohumeral periarthritis, posttraumatic peripheral nervous lesions, amyotrophic, spasmodic, reflex paralysis, and hysterical monoplegia, advising the routine use of electricity in the diagnosis of malingering and for treatment.

SEMAINE MEDICALE.

August 10, 1904.

Traumatic Chylothorax, By MUNCH.

Chylothorax.—Munch states there are only ten well authenticated cases of this accident in medical literature; he cites them briefly. Eight of these cases occurred on the right side and one was double. The problem of the ætiology is how the thoracic duct can be ruptured while its companions, the aorta and the azygos vein, escape. Possibly an afferent branch is sometimes injured, although there have been undoubted cases of recovery when the main trunk has been severed. Hæmothorax is likely to be the incorrect diagnosis before exploratory puncture; after the latter, immediate refilling of the cavity is characteristic. Fever is generally absent. Naturally puncture will disclose blood and products of inflammation as well as chyle, after traumatism. The fluid may be examined microscopically and chemically, the latter to find glucose and glycogen. Except for puncture, the treatment is expectant. Thoracotomy might possibly be demanded.

ZENTRALBLATT FUER INNERE MEDIZIN.

August 6, 1904.

1. Is Von Behring's Theory of Tuberculosis Justified on Clinical Grounds? By W. GESSNER.

1. **Von Behring's Tuberculosis Theory.**—Gessner says that in view of the conditions seen in the newborn, von Behring's theory is upheld by clinical observation. He refers to such disturbances as congenital nephritis, otitis neonatorum, jaundice, and infections of the umbilical cord. Von Behring assumes that infants in the first few weeks are especially susceptible to infection of any kind. He has demonstrated experimentally and pathologically that very early in life there is a denudation of epithelium in the intestines of man and animals which renders them easily susceptible to the invasion of pathogenic organisms and their toxines. Von Behring considers this condition pathological.

August 13, 1904.

1. Fibrinogen in Leucæmic Blood By T. PFEIFFER.

1. **Fibrinogen in Leucæmic Blood.**—Pfeiffer has demonstrated that an inflammatory leucocytosis is always accompanied by an increase of fibrin in the blood. Hyperinosis without simultaneous hyperleucocytosis does not exist. He has recently examined three cases of myeloid leucæmia and one casce of lymphæmia. In none of the cases was the total fibrinogen increased. The relative diminution of the fibrin ferment cannot be dependent, therefore, upon the poverty of the ferment or inhibition of coagulation, but the increase of fibrinogen, which always accompanies a leucocytosis, is not present in leucæmia despite the increase of some forms of white cells—namely, the polynuclear neutrophiles. There is, therefore, a decided difference in the chemical composition of the blood in leucocytosis and leucæmia.

BERLINER KLINISCHE WOCHENSCHRIFT.

August 16, 1904.

1. Gallstones and Their Treatment By KOENIG.
2. Electrodiagnostic Examinations with Condenser Discharges (*To be continued*), By L. MANN.
3. Progress in Dentistry, By WARNEKROS.
4. Metastatic Sarcomatosis of the Lungs. By S. S. BURT.
5. Scopolamine-Morphine Narcosis, By B. KORFF.

1. **Cholelithiasis.**—Koenig says that the normal operation for stones in the gall bladder is cholecystotomy. If the gall bladder is small, it is sewed to the edges of the abdominal wound and opened; if it is enlarged, it is lifted out of the abdomen and opened, its edges being sewed all around to the edge of the abdominal wound. The resulting fistula is later closed in tiers by elliptical sutures. Cholecystectomy is to be performed only in cases in which the abnormal contents of the gall bladder cannot be otherwise disposed of.

3. **Progress in Dentistry.**—Warnekros speaks of the more widespread use of local anæsthesia, of the advantages of antiseptic fillings, and of the modern treatment of pyorrhœa alveolaris. For cleansing the teeth, the author advises the alternate use of hard and soft tooth brushes, and of straight and curved ones. As a conservative measure, the use of porcelain fillings is highly recommended. The author also speaks of the advance made in the treatment of fractures of the jaw by means of obturators.

5. **Scopolamine-Morphine Anæsthesia.**—Korff records five additional cases. Summarizing his 200 cases, the author says that in proper dosage, this mode of narcosis possesses no danger. It is followed by no vomiting or nausea, and patients can take nourishment immediately after the conclusion of the operation. Individuals show decided differences, however, in their manner of submitting to the drugs.

ZEITSCHRIFT FUER GEBURSTHILFE UND GYNAEKOLOGIE.

Vol. 52, 4.

1. Clinical and Anatomical Study of Chorioepithelioma, By HAMMERSCHLAG.
2. "Ovum" Formation in Carcinoma of the Ovary, By LIEPMANN.
3. Adenomyoma of the Female Genital Tract, By KLEINHAUS.
4. Secondary Abdominal Pregnancy. By PRUESMANN.
5. Histological Characteristics of Benign Chorioepithelioma. By VON VELITS.

1. **Chorioepithelioma.**—Hammerschlag concludes his study of five cases by affirming that chorioepithelial growths in the uterus can undergo retrograde metamorphosis especially after a thorough curettage. This can be the case although the malignant character of the growth is demonstrated by the nature of the metastases. He has observed as long an interval as two and a half years between the pregnancy causative of a chorioepithelioma and death.

2. **"Ovum" Formation in Ovarian Cancer.**—Liepmann says that the microscopical pictures resembling ova found in ovarian growths are to be regarded as the products of retrogressive metamorphosis. To consider them as ovula is entirely erroneous; for they are found in growths other than those of the ovary, as has been proven by a thorough microscopic study of a great number of tumors. To consider them as ovula would be to recognize a biological monstrosity.

3. **Adenomyomata.**—Kleinhaus records two cases of this unusual kind of growth of the female genital tract. In one case the growth involved the upper third of the vaginal wall extending almost to the cervix; in the second case, the adenomyomatous growth was part of a myomatous uterus adherent to the rectum. The oncology of these growths is not yet certain. Clinically, they are of interest, because of their possible malignancy and because the prognosis attending their extirpation is not certain.

4. **Secondary Abdominal Pregnancy.**—Prues-

mann reports some interesting cases. In one, there was a left intraligamentous tubal pregnancy which burst into the abdominal cavity and continued to grow there. It evidently thrived for two weeks after full term labor pains began. Laparotomy was performed after the diagnosis had been made, and a living child was secured which has continued to live. The placenta was left in place, as it was intensely adherent to the intestines and peritonæum. The mother died of collapse shortly after the operation. In a second case, an interstitial pregnancy ruptured into the abdominal cavity. A seven months' fœtus was carried in the abdomen for a year. When removed it was mummified, but the mother recovered.

5. **Histology of Chorioepithelioma.** — Von Velits concludes that clinically, a chorioepithelioma and its metastases can undoubtedly proceed to spontaneous cure. It is possible that this is due to the fact that it is of fœtal origin, and hence is to be regarded as a kind of parasitic invasion which the organism can withstand if the conditions are right. Spontaneous cure depends upon a necrobiosis which can be recognized by the naked eye in the advanced stage. Microscopically, this is made evident by a diminished vitality of the Langhaus's cells as shown by absence of mitoses, and by the proportional appearance of wandering cells which dissolve the syncytium. These cells represent the products of degeneration of the chorioepithelioma as well as of the original mole. The common basis of the hydatid mole and of the chorioepithelioma is the overgrowth of the villous epithelium.

GAZZETTA DEGLI OSPEDALI E DELLE CLINICHE.

June 12, 1904.

1. Hyperglobulia in Tuberculosis, By S. Mircoli.
2. Effusions Into the Joints and Disappearance of the Visual Disturbances in a Case of Acromegaly, By Tomaso Parodi.
3. The Tuberculin Origin of Tuberculous Hyperglobulia. By Stefano Rebaudi and Lionello Alfonso.
4. An Epidemic of Intestinal Disturbances Due to a Colon Bacillus Occurring in Drinking Water, By Livio Vincenzo.
5. Primary Echinoccoccus in the Left Lung, By Niccola Giannettasio.
6. Maragliano's Serum in the Prevention of Tuberculosis and in the Treatment of Incipient Cases of this Affection, By Serafino Calasuonno.
7. Intramuscular Injections of Antipyrine in Sciatica. By Sigismondo Pascoletti.

1. **An Excess of Red Blood Cells in Tuberculosis.**—Mircoli's article is merely an introduction to the one by Rebaudi and Alfonso, which is abstracted below. He found that in incipient tuberculosis, especially in individuals with a small amount of consolidation, there are sometimes as many as six million red cells per cubic millimetre of the blood. This fact has not been noted before, probably because patients in the early stages were not frequently admitted to hospitals as they are now. In many cases the high figures were found, but were regarded as erroneous counts, inasmuch as in tuberculosis nothing but low figures could be present. A patient under Mircoli's observation had 5,600,000 red cells after a copious hæmoptysis.

3. **On the Origin of the Hyperglobulia of Tuberculosis.**—Rebaudi and Alfonso found that large doses of tuberculin destroy the red blood cells in animals, moderate doses do not affect perceptibly the number of red blood cells, while small, repeated doses produce an actual increase in the number of red blood cells in the circulation. Thus the explanation of the clinical findings of Mircoli, referred to in the preceding abstract, is that in incipient tuberculosis small amounts of tuberculous toxine cause an increase in the number of red blood cells. The authors propose to use small and fractional doses of tuberculin in anæmic patients, in order to see whether they could employ this agent as a cure for the lack of red cells. Tuberculin in such small doses has been shown to be perfectly harmless, they say. In none of the animals that had received the small doses were any untoward effects noted,—on the contrary, their condition was rather improved.

4. **An Epidemic of Intestinal Disturbances at Sassari.**—Vincenzo reports the results of his study of an epidemic of diarrhœa in Sassari, affecting a large number of families, soldiers, prisoners, etc. The well to do portions of the population, including the government officials of the city, were the most severely affected in this epidemic, and they inhabited the highest portions of the town. There were no deaths, although the disease was rapid in its course, and caused marked prostration in most cases. In the stools of a large number of cases a colon bacillus was found which proved to be pathogenic in a few hours in animals, causing inflammation of the intestines and congestion of the peritonæum. The source of this colon bacillus was traced to the water of the city. A communication existed, through an oversight in construction, between the aqueduct and the water used for irrigation purposes about the city. This irrigation water came from a lake into which drained the emanations of about six thousand people inhabiting a town in the neighborhood.

RIFORMA MEDICA.

June 6, 1904.

1. Alimentary Glycosuria in Hepatic Disease. By S. De Rossi.
2. The Detection of Blood in the Intestinal Contents. By E. U. Fittipaldi.
3. Contribution to the Ætiology and Pathogenesis of the So Called Inflammatory Tumors of the Salivary Glands, By F. Gangitano.
4. Seromuscular Flaps in Hepatic Hæmostasis, By L. Baldassari.

1. **Alimentary Glycosuria in Diseases of the Liver.**—De Rossi found that glucose and saccharose were untrustworthy sugars to use in testing a patient with liver disease for alimentary glycosuria. Lævulose, administered in doses of 1.9

grammes per kilogramme of the patient's body weight, may cause glycosuria even in healthy patients, and therefore it is necessary to weigh the patient in order to establish the dose. It is only in this manner that we can avoid producing a glycosuria not due to the hepatic disease. The lævulose begins to be eliminated, as a rule, about an hour after it has been taken. The elimination lasts from two to six hours, but oftener from three to four. The amount of sugar eliminated is as a rule very small and cannot be clinically estimated.

2. **Blood in the Gastric and Intestinal Contents.**—Fittipaldi describes a method for detecting presence of blood in the contents of the stomach or intestines. He reminds us of the great difficulty in finding blood in these specimens by the methods ordinarily described. The suspected portions of the gastric juice are separated from the rest of the specimen, and the pulpy mass thus obtained is placed in a porcelain capsule, where it is heated with the addition of a little caustic potash. Caustic soda and the carbonates give less satisfactory results. The whole mixture is heated until it has become homogeneous, owing to the solution of the mucus. Gradually it becomes darker, the coloring depending upon the conversion of the carbohydrates into caramel. It is then cooled and poured into a filter lined with filter paper that is not affected by caustic alkalies. The filtrate varies in color from an orange red to a reddish brown, according to the amount of blood present. This coloring depends upon the presence of hæmochromogen, or reduced hæmatin, as subsequent tests demonstrate. The filtrate gives, under the spectroscope, the characteristic bands of blood coloring matters, especially of reduced hæmatin in an alkaline solution. On shaking the liquid in air, the spectrum changes to that of ordinary hæmatin in alkaline solution. The author thinks that the hæmatin is reduced in the specimen originally by the presence of some unknown substances in the mucus of the gastric juice. For the detection of blood in fæces the same method is used, the filtrate showing the presence of hæmochromogen in the spectroscope. This method is especially useful in distinguishing blood from substances resembling it in the gastric contents, such as coffee, chocolate, wine, etc.

4. **Hæmostasis in Liver Operations by Means of a Seromuscular Flap.**—Baldassari recommends the following method of arresting hæmorrhage in resections, etc., in the liver. He detaches a seromuscular flap from the anterior abdominal wall, immediately opposite the wound in the liver, consisting of a layer of peritonæum and a piece of the transversalis muscle. This flap he sutures into place over the wounded area, and thus secures the needed compression for an efficient hæmostasis. Thus far he reports only experiments upon dogs.

ROUSSKY VRATCH.

July 17, 1904.

1. The Significance of Dilatations of the Thoracic Duct in the Movement of the Lymph, By G. M. Iossifoff.
2. Antistreptococcus Serum in Two Cases of Appendicitis, By M. S. Maslowsky.
3. On the Treatment of Gonorrhœal Inflammation of the Cervix and the Body of the Uterus by Means of Silver Preparations, By A. P. Roudsky.
4. The Modern Treatment of Alcoholism and Its Complications, By S. A. Lissoff.

1. **Dilatation of the Thoracic Duct and the Lymph Circulation.**—Iossifoff noted that in dogs the thoracic duct bcame dilated at its passage through the diaphragm during inspiration. The lymph flows upward into it from the abdominal portion, which at this time is subjected to a strong pressure. During expiration the lymph in the thoracic portion is pressed upward into the veins. Thus the movements of the diaphragm exercise a considerable influence upon the movements of the lymph. This is not only to be observed in dogs, but also in animals of a much lower order. In those animals which are very active, e. g., horses or dogs, the thoracic duct is widely dilated during respiration, while in the less active ones, such as sheep or calves, dilatation is slight. Iossifoff suggests that the degree of dilatation depends upon the mode of life of the animal.

2. **Streptococcus Serum in Appendicitis.**—Maslowsky reports two cases of appendicitis in which he used antistreptococcus serum. The injections in both cases were found to be well tolerated. The serum was injected in that stage of the disease in which medicinal treatment was no longer effective and the inflammatory process seemed to go on undisturbed. The serum proved to be efficient in both cases in reducing the temperature by lysis; improving the general condition of the patients; diminishing pain; and lessening the local symptoms. The suppurative process abated and the patients rapidly recovered.

4. **Treatment of Alcoholism.**—Lissoff reports his results in the treatment of one hundred drunkards, including ninety-five men and five women, bv means of hypnotic suggestion. He found that of this number twelve were not amenable to hypnotic influence, sixty showed satisfactory results, i. e., cessation of drinking and craving for the same for a number of years, and twenty-four showed unfavorable results. In some cases not responding to hypnotism he has found confinement in a special institution to be of value, and deplores the fact that there are only three such institutions in Russia. In his conclusions he emphasizes the principle that it is not a method of treatment for alcoholism that is to be sought so much as a method of preventing this social disease, which is so generally regarded merely as a bad habit. So long as the government profits largely by the sale of liquor, so long will alcoholism be prevalent. What do the efforts of a physician avail in the few cases which he can treat, when at every step in social and in business life a man is tempted to drink? Society conspires to make a drunkard out of the patient, in spite of everything. A fact which the author noted and which is of interest in this connection is that hypnotism was found to be of much more value in cases of habitual drunkards than in those of persons who were given to periodical debauch.

July 24, 1904.

1. Wounds Inflicted with Japanese Projectiles. By J. B. Zeldovitch.
2. On the Treatment of Ozæna. By V. Siziemsky.
3. The Resection of Long Bones in Acute Osteomyelitis, By A. N. Zimine.

1. **Wounds Caused by Japanese Bullets.**—Zeldovitch points out that the small calibre of the Japanese bullets is probably responsible for the unusually good results which have been observed after ordinary aseptic treatment of even penetrating wounds of the chest. The bullets in most cases passed through the intercostal spaces without doing much injury to the ribs. Wounds through bony parts were remarkably clean-cut, the bullet being so small and swift that it passed through the bone without splintering the latter, but cutting a canal corresponding to the calibre of the bullet. The author inclines to the expectant treatment and relates some cases in which he was able to employ this method in preference to ligating. The danger of extensive effusion of blood after ligation, and the liability of this blood to become infected are important considerations in this connection.

A description of the reserve field hospital of Tie-lin, in which the author is working, is given in the article. The hospital occupies a newly built barrack and accommodates 210 patients. An operating room has been built, with a skylight and a linoleum floor, and "with the exception of a few articles," the equipment is complete. Apparently these "few articles" are very important, for the author mentions, among other things, the absence of proper appliances for anæsthesia; of infusion apparatus, etc. Instead of aseptic gauze, a bichloride gauze has been provided which is colored pink, and the dye comes off on the skin, giving the appearance of erysipelas. Straw mattresses are used and are very inconvenient.

2. **The Serum Therapy of Ozæna.**—Siziemsky collected from literature 110 cases of ozæna treated by means of antidiphtheritic serum. Of these cases twenty-two per cent. were permanently cured; six per cent. almost completely cured; thirty-seven per cent. improved; twenty-four per cent. temporarily improved. In eight per cent., the result was uncertain, because the treatment had been abandoned too early, and in three per cent. the results were negative. It appears from this statement that diphtheria antitoxine is a remedy which gives favorable results in most cases of ozæna. While the theoretical basis of this treatment is as yet not completely worked out, yet clinical results with it have been so satisfactory that it may be considered as a fairly trustworthy method. The author reports two cases of ozæna which he treated with success with the antidiphtheritic serum. The theoretical basis of this treatment should not be looked for, as some have done, in the similarity of the germ of ozæna to that of diphtheria, but in the similarity of the toxines of these two affections in a chemical sense.

July 31, 1904.

1. On Gunshot Wounds of the Stomach and the Pancreas, with Description of a Case Terminating in Recovery, By K. G. Slavsky.
2. Inversion of the Uterus, with Description of a Case of Inversion Occurring During a Labor, By M. D. Totesch.
3. The Introduction of Microbic Poisons and Antidotes Into the Spinal Fluid as a Method of Experimental Research in Neuropathology (*To be concluded*), By L. S. Arnstein.
4. On the Treatment of Erysipelas, By V. J. Soubbotine.
5. Medical Report of the St. Petersburg Municipal Lying-in Asylums for the Years 1902 and 1903, By E. L. Pouschkina.

1. **Gunshot Wound of the Stomach and the Pancreas.**—Slavsky relates the case of a young woman aged sixteen years who shot herself in the abdomen with a Smith and Wesson revolver. Operation five hours later showed a wound with clean edges through the stomach, the lesser omentum, and the pancreas, as well as through a portion of the thin lobe of the liver. The principal symptom before operation had been intense shooting pains in the legs and thighs, showing the involvement of the lumbar nerve plexus. The bullet was not found, but the wounds were carefully closed with Lembert sutures, etc. The patient made a good recovery. According to Mikulicz, this is the thirteenth case of gunshot wound of the pancreas in literature; the sixth to be operated upon, and the fourth to recover.

2. **Inversion of the Uterus.**—Totesch reports a case of complete inversion of the uterus during labor, in which the causes of the inversion were atony of the uterus, adherence of the placenta, and attempts at forcibly expressing the placenta by the Crede method. In this case it would have been better, he admits, in view of the adherence of the placenta, to have gone in with the hand. However, an adherent placenta is not easily diagnosticated. Fortunately inversions of the uterus are rare, and in the Rotunda Hospital, of Dublin, there has been only one case among one hundred thousand labors. No instruments had been used in this case, and the inversion cannot be attributed to injury of the uterus. The uterus was replaced bimanually under anæsthesia after dilating the inverted ring of the cervix, and the patient made a good recovery, complicated by a short attack of septic fever.

4. **Treatment of Erysipelas.**—Soubbotine, in treating erysipelas, uses two well known remedies in a special manner. At the very onset of the disease the affected parts are covered with a ten per cent. ointment of ichthyol, while the periphery of the eruption is rubbed with mercurial ointment in order to prevent the spread of the blush. The bowels are opened and moderate doses of sodium salicylate are given every two hours. At night codeine is administered, and if the heart is weak, caffeine is given three times daily. Ice to the head is useful when there is marked headache. The author obtained good results with this treatment in ten cases of erysipelas.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

September 10, 1904.

1. The Pelvic Ureteral Sheath. Its Relation to the Extension of Carcinoma Cervicis Uteri, By JOHN A. SAMPSON.
2. Excision of Part of the Ileum and all of the Cæcum and Ascending Colon. Ileum and Transverse Colon United by a New Method, By J. SHELTON HORSLEY.
3. Gallstones in the Common Duct, By ARCHIBALD MACLAREN.
4. The Anatomy and Radical Cure of Inguinal Hernia, By DANIEL N. EISENDRATH.
5. The Relation of Acute Infections to Arteriosclerosis, By WILLIAM SYDNEY THAYER, and CLINTON ETHELBERT BRUSH, JR.
6. Arteriosclerosis of Syphilitic Origin. By S. TRAVIS DRENNEN.
7. Arteriosclerosis of Nephritic Origin, By GEORGE DOCK.
8. United States Public Health and Marine Hospital Service. Part II. The Service as it is To-day. (*Continued*).
9. Travel Notes. Medical Affairs in the Hawaiian Islands. VIII, By NICHOLAS SENN.

1. **The Pelvic Ureteral Sheath.**—Sampson has made a minute study of the ureter in its relations to the uterus and surrounding structures. He has demonstrated a ureteral sheath which is of some importance to the pelvic surgeon. The article is finely illustrated, and is too technical to permit of its being abstracted.

2. **A New Method of Performing Intestinal Anastomosis.**—Horsley has devised an ingenious method of performing intestinal anastomosis. It is a suture method and no special instruments are required. The article is fully illustrated.

4. **Inguinal Hernia.**—Eisendrath illustrates and describes Andrews's operation for the cure of inguinal hernia. He also discusses, but not at such length, the other well known operations. His conclusions are: (1) In the normal inguinal canal the anterior wall is relatively stronger than the posterior. (2) This condition is exaggerated in inguinal hernia so that the larger the hernia the greater the muscular gap between the arching fibres of the internal oblique and Poupart's ligament. (3) In the smaller herniæ almost any of the modern operations either with or without transplantation of the cord will suffice. (4) When the muscular gap is marked some method must be employed in which a strong aponeurotic structure is used to fill the gap. (5) The Andrews modification of the Bassini operation, by utilizing a portion of the external oblique aponeurosis as an additional layer in the posterior wall of the canal, gives the latter great strength. (6) The majority of surgeons believe best results are obtained by not transplanting the cord. It is still an open question whether or not the veins should be resected.

5. **Acute Infection and Arteriosclerosis.**—Thayer and Brush conclude: "As the result of an analysis of the records of nearly 4,000 patients entering consecutively the medical wards of the hospital, we find that: (1) The percentage of palpable radial arteries is materially higher among those individuals in whom there is a history of heavy physical labor and of the use of alcoholic stimulants than in the remaining cases. This percentage is appreciably higher in the cases giving a history of heavy work. (2) The percentage of palpable radial arteries is higher among those cases presenting a history of severe infectious diseases than among those in which this history is absent or among those in which a history of no causal factor could be obtained. The proportion is, however, far below that in the case of work or alcohol. (3) Rheumatism appears to be the acute infection after which the percentage of palpable vessels is highest, and next to rheumatism, typhoid fever. As previously stated, it is well recognized that the results of such an investigation as this justify only rather rough generalizations.

6. **Arteriosclerosis of Syphilitic Origin.**—Drennen asserts his belief that some of the arteriosclerosis which is supposed to be due to syphilis is in reality due to the prolonged and not alway judicious use of mercury. He thinks it strange that this matter has thus far received so little attention.

BOSTON MEDICAL AND SURGICAL JOURNAL

September 8, 1904.

1. What Shall We Do with Patients Having Pulmonary Tuberculosis? By FREDERICK I. KNIGHT.
2. The Interrelation of Medicine and Surgery in the Treatment of Gastric Ulcer, By HUGH CABOT, and GEORGE S. C. BADGER.
3. Spindle Cell Sarcoma of Foot. Amputation. Recovery. Lung Metastases. Death. Autopsy, By CHARLES L. SCUDDER.

1. **Tuberculosis.**—Knight attempts to formulate more or less hard and fast rules for the management of tuberculous patients. He classifies patients thus: First, as to their worldly goods, into (a) rich; (b), fairly well-to-do, and (c), poor. Second, as to the stage of the disease, into (a) incipient; (b) somewhat advanced, and (c), far advanced cases. In the end treatment amounts to this: Make an early diagnosis and it will be possible to cure 80 per cent. of all cases. There are no specifics. Fresh air, good food, and careful attention to the details of the patient's life are the only measures of any avail.

2. **Gastric Ulcer.**—Cabot and Badger sum up the indications for the surgical treatment of gastric ulcer as follows: (1) Perforating ulcers of the stomach. (2) Bleeding ulcers in which the hæmorrhage either cannot be controlled by medical means, or, having been controlled, tends to recur, thus placing the patient's life in immediate danger. (3) Cases with a long history of dyspepsia culminating in hæmorrhage, after the hæmorrhage has been controlled by medical means and the patient put in proper condition for operation. (4) Cases of intermittent, recurring hæmorrhage which, though individually small in amount, tend by their persistency to produce a profound anæ-

mia. (5) Cases of chronic dyspepsia without dilatation, which fail to yield to proper medical treatment. (6) Cases of chronic dilatation of the stomach which fail to yield to medical treatment and are not due to a general visceral ptosis.

3. **Sarcoma.**—Scudder's case occurred in a young man twenty-two years of age. Eight months before his death he had sprained his foot and he dated his illness from this time. Two months after the original injury he was operated upon for a collection of fluid in the tissues of the sole of the foot. Examination proved the material to be sarcomatous. Eight days later the leg was amputated. It is to be noted that the tumor, a spindle cell sarcoma, had its origin in the soft parts of the foot. The exploratory incision was possibly the cause of the metastasis.

AMERICAN MEDICINE

September 10, 1904.

1. The Nature of the Indications for Operation for Fibroid Tumors of the Uterus, By CHARLES P. NOBLE.
2. On the Pathogenesis of Chronic Gastric Ulcer, By W. G. MACCALLUM.
3. Recent Experimental Work on Anæsthesia, By TORALD SOLLMANN.
4. The Early Recognition and Treatment of Intestinal Obstruction, By ANDREW STEWART LOBINGIER.
5. The Role of the General Practitioner in the Prevention of Pulmonary Tuberculosis, By F. M. POTTENGER.
6. The Principles of the Preservation of Food, By GEORGE RICHTER.
7. The Advertising Specialist, By FRED D. LEWIS.
8. Sea Versus Land Burial, By THOMAS R. EVANS.

1. **Fibroids of the Uterus.**—Noble, from an analysis of 1,188 cases of uterine fibroid, concludes that all cases should be looked upon as requiring operative relief. This for the following reasons: (1) Because degeneration of the fibroids would have caused the death of 16 per cent. of the cases analyzed. (2) Because other complications would have caused death in an additional 18 per cent. (3) Because at the menopause not as many of the tumors disappear as has been supposed. A condition which if let alone will eventually kill one third of all who suffer from it is not to be treated lightly.

2. **Gastric Ulcer.** — MacCallum concludes: "It may be said that gastric ulcers may be produced by anything which causes necrosis of the mucosa of the stomach, and thus subjects it to the digestive action of the gastric juice. While certain cases may be explained in their origin by one or other of the causes given, there are others whose inception is obscure. The persistence of some of these ulcers offers the greatest difficulty of explanation, and none of the theories is satisfactory. Perhaps the majority of gastric ulcers do heal, however, and are recognizable later only by the scars they leave, so that possibly Talma is right in saying that all ulcers tend to heal, but that frequently they last a long time because new ulceration occurs in the same spot."

3. **Anæsthesia.**—Sollmann summarizes the principal facts concerning the most used anæsthetics. About eighteen methods of producing general anæsthesia are considered.

4. **Intestinal Obstruction.**—Lobingier asserts that the treatment of intestinal obstruction is surgical. Generally speaking the earlier an operation is performed for the relief of this condition the better. Therefore it is of the utmost importance to have the symptomatology of the condition clearly in mind. The symptoms which appear early and which are our principal dependence in diagnosis, are obstipation; vomiting persisting more than fifty hours; pain, more or less severe and constant; shock or collapse; meteorism, of localized character; normal or subnormal temperature; a rapid small pulse and a leucocytosis between 15,000 and 20,000, with a strong reaction of indicanuria if taken before the third day and the ileum is involved.

6. **The Preservation of Food.**—Richter considers the most popular methods for food preservation. He has devised a new method based upon the fact that gelatin in powder or in thin sheets does not spoil, and that it is capable of protecting substances incorporated with it from the action of moisture, bacteria, etc. "My process demands that the material to be preserved should be in solution. For instance, the juice pressed out of raw meat with a hydraulic press, or a beef soup, containing all the necessary condiments, or strong tea, or coffee, or oxgall, is mixed with about 1 per cent. of primary gelatin (commercial gelatin cannot be used for the purpose, on account of its gluelike taste). After cooling, a jelly forms. This is cut into thin films and dried in a cold air current until it becomes brittle. The leaves are then converted into a fine powder. This powder will keep indefinitely. If not packed air tight, it will take up moisture, corresponding to the vapor tension of the surroundings, but not enough for decomposition to set in. It may eventually cake, but the cake is brittle. In dry air the moisture is given off again to the atmosphere, yet the substance enclosed in the gelatin remains protected from the moisture. Insects find the dry substance too hard for their uses. The powder is instantaneously soluble in lukewarm water. To insure the absence of septic or other organisms the dry powder is heated to about 100° C. before packing, or in the package."

MEDICAL RECORD.

September 10, 1904.

1. The Cycle of the Tubercle Bacillus, By STEPHEN J. MAHER.
2. Clinical and Other Features of the Recent Epidemic of Cerebrospinal Meningitis By HENRY W. BERG.
3. Report of Two Cases of Mastoiditis with Paralysis of Facial Nerve; Recovery of Paralysis Following Operation. By SEYMOUR OPPENHEIMER.
4. Regarding Hamlet's Sanity, By JOHN W. WAINWRIGHT.
5. Illuminating Gas Poisoning; Its Rational Treatment, By ERNEST VALENTINE HUBBARD.

1. **The Tubercle Bacillus.**—Maher has made some observations which, if shown to be correct

by future experiments, will probably be of very great value. In attempting to cultivate in pure culture an acid fast bacillus found in a dark barn the author obtained, quite accidentally at first, an additional organism to which he has given the name of *Bacillus maternus.* This organism is at least ten times as large as the tubercle bacillus and it occurs in chains or singly. It contains much granular spore matter, some of which is consistently acid fast. The author next planted a tube with a pure culture of his mother bacillus and after two weeks found large numbers of acid fast bacilli present. This culture was injected into a number of guinea pigs. "The first of the thirty-seven to die was one that had been injected with the progeny of *Bacillus maternus.* It died on the twenty-fourth day. On autopsy it was found to have four tubercles in the mesentery, sixty in the liver, an enlarged caseous spleen, and enlarged and soft suprarenal capsules. Acid fast rods and ovoids and crescents were demonstrated by the microscope in smears from tubercles in the liver and mesentery and from the pus from the suprarenal capsules." Two other bodies make their appearance under certain conditions, yellow spore matter, which the author believes is derived from broken down acid fast bacilli, and blue cocci (Gabbett's stain) which the author believes originate from the yellow spore material. The author now got cultures of tubercle bacilli from Saranac Lake and from them developed mother bacilli and blue cocci. The author's paper is only a preliminary report and he does not claim too much. The original article should be consulted.

2. **Cerebrospinal Meningitis.**—Berg reviews the statistics of the recent epidemic of cerebrospinal meningitis. The clinical features of the disease are fully discussed. The author thus outlines his management of these cases: ". . . Treatment consists of repeated lumbar punctures only when, after a period of improvement, the temperature again rises, and symptoms of increased intraspinal and intracranial tension occur. Such are, total abolition of the patellar reflex, slowing of the pulse, Macewen's symptom, increase in the Kernig phenomenon, increase in the delirium and stupor. If the cerebrospinal fluid flows from the cannula in a continuous stream under tension, the withdrawal of 15 to 30 c. cm. of fluid will do much good. If it escapes drop by drop, or if it be a dry tap, the puncture will have no effect, from a therapeutic standpoint, upon the case. I give the sodium iodide in considerable doses: 5 to 10 grains, every 3 hours in a child over a year old; 15 to 20 grains every 3 hours in adults. In addition, also, in adults, 15 grains of mercurial ointment is given by inunction into the back and neck twice daily, until the gums are red, when the inunction is stopped." With the above method of treatment and attention to symptomatic indications recoveries may be expected in forty per cent. of cases.

5. **Illuminating Gas Poisoning.**—Hubbard asserts his very positive conviction that the proper way to treat illuminating gas poisoning is by venesection and infusion of normal salt solution. The quantity of blood to be removed must be determined by the condition of the pulse. When the pulse begins to weaken it is time to stop the blood letting. The salt solution should be continued until the pulse is full and strong. If after four or five hours evidences of awakening are not present a second venesection may be resorted to.

MEDICAL NEWS.

September 10, 1904.

1. An Analytical Study of Twenty-eight Cases of Arthritis, with Special Reference to Gout and Its Treatment,
By CHARLES C. RANSOM.
2. Contributions to the Pathology and Treatment of Acute Gonorrhœa (*To be continued*), By LUDWIG WEISS.
3. Recent Advances in the Therapeutics of Pædiatrics,
By NOBLE P. BARNES.
4. Hereditary Chorea in Eighteen Members of a Family, with a Report of Three Cases.
By MALCOLM MACKAY.
5. Influenza in Children. By KENNETH E. KELLOGG.
6. Report of a Case of Addison's Disease Treated by Means of Suprarenal Extract and Adrenalin Chloride,
By DOUGLAS SYMMERS.
7. The Gastrointestinal Crisis of Erythema Exudativum; Simulating Appendicitis, By A. M. POND.

1. **Arthritis.**—Ransom believes that gout, both acute and chronic, is much more prevalent in this country than is generally supposed. In 415 consecutive cases admitted to the author's service at the City Hospital there were 28 cases of arthritis, of which twelve, or forty-three per cent., were due to gout. The author tabulates his twenty-eight cases of joint trouble and gives abstracts of the histories of the seven cases of chronic gout.

3. **Advances in Therapeutics.**—Barnes's paper cannot very well be abstracted, as he covers very briefly a large number of subjects. Some of the points touched upon are infant feeding, the serum treatment of typhoid and scarlet fevers, the Shiga-Flexner bacillus, rheumatism, chorea, pneumonia, meningitis, etc.

4. **Hereditary Chorea.**—Mackay's eighteen cases of chorea in one family occurred in four generations. The sufferers were French Canadians, and the histories of many of the cases were obtained by hearsay.

5. **Influenza in Children.**—Kellogg, in writing his paper, has had the following objects in view: To review the general manifestations of influenza as it appears in children; to outline the general treatment; to emphasize the extreme seriousness of the condition; and, finally, to plead that it is the duty of the medical man to enlighten the public on the seriousness of the disease.

7. **Erythema Exudativa.**—Pond reports one case in which the rash did not appear until the sixth day of the disease. Until the rash appeared the cases were looked upon as appendicitis. On first seeing the case he fortunately decided to do an interval operation if possible, and so the child was spared a needless operation. The author thinks it strange that, although the literature of appendicitis is voluminous, little or nothing has been said of this possible source of error.

Letters to the Editor.

CRIMINAL HEREDITY.

BRISTOL, PA., *August* 30, 1904.

To the Editor,

Sir: Some years ago, a dozen or more, there was an article published in one of the New York medical journals which was extensively copied throughout the country, giving an account of a vicious woman and her descendants who lived in the early part of last century in Saratoga County, or at least some county up the Hudson. I do not recall her name, but she had a numerous progeny, who inherited the evil tendencies of the ancestor, and the family became famous for its criminal record for several generations.

You may be aware that an effort will be made this coming winter to have legislation enacted in this State by which radical measures can be taken to prevent the propagation of criminals, and we wish to have some additional literature for argument.

If you can inform me where I can obtain the information indicated you will greatly oblige me.

H. PURSELL.

***Perhaps some of our readers can give Dr. Pursell such information as he desires.

DRUG ADDICTION.

P. O. BOX 2340,
BOSTON, *September* 1, 1904.

To the Editor,

Sir: I am editing a work on drug habits, and find it hard to get reliable statistics. Please give me your estimate as to—

1. The number of persons in the United States addicted to opium in any form.
2. The number addicted to cocaine.
3. The percentage of "hypos" in illegitimate use (by drug slaves).

Any other information will be thankfully received. Also please put this matter before your readers.

J. L. VONDAL.

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New York State Hospital for Crippled and Deformed Children.—By the completion on September 5th of negotiations between the State of New York and the heirs of the Libburn estate a site has been obtained for the proposed State Hospital for Cripled and Deformed Children, for which the last Legislature appropriated $50,000. The property acquired is the old Libburn homestead on Treason Hill, near Haverstraw, Rockland County, and the heirs received from the State $25,000 for it. Those present when the deal was closed were: A representative of the Attorney General, Dr. Schaffer, who is to be the head of the new institution; Harvey Debaum, a lawyer, and George M. Libburn and James W. Gillies, executors of the estate. Work of demolishing the old homestead and other buildings on the property will be begun immediately. Modern buildings in which to carry on the proposed work will be put up, and it is believed that by next summer 200 children will be inmates of the new institution.

Proceedings of Societies.

AMERICAN SURGICAL ASSOCIATION.

Twenty-fifth Annual Meeting, held in St. Louis on June 14, 15, 16, and 17, 1904.

(Concluded from page 524.)

New Aids in the Diagnosis of Surgical Diseases of the Kidney, and Their Value.—Dr. A. T. CABOT, of Boston, read a paper on this subject. His conclusions, from the experience he had had and from his study of the works of others, were that segregation of the urines was of great use sometimes in deciding the question as to which kidney was diseased, or even as to which was most affected. Determination of the functional capacity of the kidney by testing the elimination through it might be of assistance by adding strength to what evidence we had, but would often be misleading if too implicitly relied upon for deciding as to operative measures.

Acute Pancreatitis Associated with Gallstones.—Dr. JAMES BELL, of Montreal, reported a case. In March, 1898, there were all the characteristic lesions. as well as the signs and symptoms, of acute pancreatitis, and at the same time an apparently quite healthy liver and gall passages, with two or three stones in the gall bladder. All signs and symptoms of pancreatitis disappeared, the patient recovering and considering himself quite well until nearly two years later, when a new train of symptoms developed, which were characteristically those produced by gallstones. Three years after the attack of acute pancreatitis it was demonstrated that, while extensive and serious pathological changes had taken place in the gall bladder and bile ducts. all local signs of acute pancreatitis had during the same period of time entirely disappeared (subperitoneal fat necrosis and swelling of the pancreas), that acute pancreatitis developed before there were any pathological changes in the gall bladder and bile ducts, and that while such changes were taking place pancreatitis was recovered from.

These facts would seem to be at variance with modern views of the ætiology of acute pancreatitis, which tended to attribute this condition in a general way to a pathological change in the common bile duct due to the passage of gallstones from the gall bladder to the intestine.

The Treatment of Congenital Cleft Palate; a Plea for Operations in Early Infancy.—Dr. TRUMAN W. BROPHY, of Chicago, by invitation, read a paper with this title. After referring to the work of Lamonier, Kirmisson, Roux, and many others in this field, he said that, after having studied carefully the literature and the methods pursued by other operators, he had endeavored to overcome the objections and to avoid the difficulties with which the older surgeons contended, and he was satisfied that the most desirable time to select for operating was within three months after birth. In operating at that time one was able to secure more satisfactory results than later in life, and avoided the objections usually raised by surgical writers. He believed in operating at as early an age as practicable, preferably within three months, and his experience of twenty years in operations performed for the closure of cleft palate, at from ten days to fifty years of age, including 927 operations, had more and more justified the practice.

Among the advantages mentioned in favor of early operations were: Surgical shock was less, because the nervous system of the young child was not well developed, and it was not capable of receiving the same impressions that it would late in life. Furthermore, young children usually reacted better. All mental apprehensions were eliminated, and alarm and dread were among the most powerful factors in producing shock. Following early operations there was much less deformity, for all the tissues, bony as well as soft, developed naturally and according to accepted types. When the operation was postponed for a few years, it was very difficult to secure as good results. When the operation was done in early infancy, the parts were sufficiently developed to give promise of normal speech when the child had reached a speaking age.

The author described his method of operating on cleft palate in detail. In conclusion, he stated that if operations were made later in life, the patient should be placed under the instruction of one who had the perseverance, the ability, and the patience to teach him how to overcome the defective speech which he had acquired.

The Evolution of Surgery.—Dr. J. EWING MEARS, of Philadelphia, read a paper on this subject. He divided this unfolding of surgery into three periods of time: 1. That which extended from the beginning to the time of Ambroise Paré, 1517-1519. 2. The use by John Collins Warren (1846) of ether as an anæsthetic in surgical operations. 3. The discovery and introduction into general use by Sir Joseph Lister (1860-1875) of the antiseptic treatment of wounds. Each period was taken up and considered in a masterly manner.

A Mechanical Device for Gastric and Intestinal Anastomosis.—Dr. F. B. HARRINGTON, of Boston, described a ring for use in establishing intestinal anastomosis. The advantages of this ring were stated as follows: 1. Safety and speed. A complete resection and suture can be easily done in fifteen minutes, and with as great speed as by any more protracted method. 2. Cleanliness. Assisted by clamps, the purse string sutures prevent even a mucous ooze while the continuous stitch is being placed. 3. The intestinal suture is more easily done over the ring than without it. 4. It is safe to use a single layer of continuous stitches, since the ring allows a perfect approximation to be made, and afterward protects the suture until adhesions have formed. 5. The handle is very useful for holding the intestines in convenient positions for sutures. 6. It is not necessary to sew up any of the layers, since a study of specimens from animals and human beings shows that the mucous membrane will slough in any case, and that repair is more rapid when the mucous membrane is not sutured. 7. The presence of the ring guarantees a free opening at the site of operation. 8. In case the continuous stitch should be improperly applied, the weak spots are protected by the ring itself for at least three days, until the ring breaks down. This allows strong adhesions to form. 9. After the operation the ring holds the suture immovable and acts like a splint. The weights of the individual segments of the ring vary, as in most other appliances of a similar nature."

The author drew the following conclusions: 1. The process of repair is as rapid after the use of the segmented ring as after a plain suture. 2. The time required for the operation is on the whole less than that required for a straight intestinal suture. 3. Certain objections, such as weight, ulcer, difficulty of passage, etc., inherent in other mechanical contrivances, are minimized by the ring. 4. The analogy between the experimental and human observations is so close as to show the propriety of the deductions made from animal experiments. 5. The employment of the ring in human beings is safe and satisfactory.

In the discussion of Dr. Harrington's paper Dr. J. W. DRAPER MAURY, of New York, by invitation, stated that, instead of using the elastic ligature at the laboratory of Columbia University, they had been employing twine. The specimen which he exhibited was made with the elastic ligature, put in by a square knot, thus differing from Dr. McGraw's technics. But for the last three months he had obtained as good results by using simple twine instead of the elastic ligature. The method of introducing the twine might follow the McGraw technics, although the triangular stitch possessed a very distinct advantage over it. This stitch punched out as much tissue as might have been included in the triangle. As to time, it would cut through in less than three days and a half. It must be very tightly tied. This was the sole requirement to success. Dr. Maury demonstrated on a chart the technics of introducing the triangular stitch, and stated that he included about one third the circumference of the gut in the stitch. The gastric triangle should, as a rule, be made larger than the intestinal. He then passed around photographs of specimens made by this method and a preparation from the gut of a pig, which demonstrated how free an anastomosis might be established. He also showed a number of circular bits of twine which had been used in executing the technics. They had cut the triangle out and had been recovered after their passage through the rectum.

The Subtle Force of Radium.—Dr. ROBERT ABBÉ, of New York, narrated his experience with this new therapeutic agent, and, among other things, said that radium had a powerful and seemingly beneficial effect upon carcinoma. Cases were cited in point. He mentioned one case of virulent, typical scirrhous carcinoma, in which the carcinomatous nodules were reduced to one third their original size by "radiumization." The agent had been used in cases of lupus, superficial epithelioma, carcinoma, rodent ulcer, superficial sarcoma, etc. In cases of superficial recurrent carcinoma of the breast, if radium was applied to the diseased area for a considerable time, say, an hour, then the patient permitted to go, and the agent reapplied at intervals of two or three days, the carcinomatous masses would disappear in some cases. In other instances they would disappear under the use of the x ray; still others would resist the action of the x ray, while radium would act beneficially. Radium had an extraordinary power in inhibiting the growth of malignant cells in some cases.

Dr. W. W. Keen, of Philadelphia, said that one positive fact was worth a dozen negative ones. He had had an experience now covering twenty-two cases in which radium was used. Whether his results were due to the quality of radium, to a difference in the character of the growths, to the method of using it, or what not, he did not know. But, to sum up his experience, in not one single case had there been the slightest benefit, except in one feature, and that was as to pain. Unquestionably, in cases of carcinoma the patients had suffered less, and in a large number pain had disappeared. He had used the German instead of the French radium. Some of his specimens had varied from 17,000 up to a larger radioactivity, until finally he was able to obtain one specimen with 1,800,000 radioactivity. He regretted to say that his experience had not been satisfactory with the use of radium.

Gastrostomy in Œsophageal Stricture.—Dr. James H. Dunn, of Minneapolis, in a paper on this subject, said that cicatricial stricture was the most serious benign affection of the œsophagus. He referred to the improvements in operative technics, saying that surgeons could now approach these cases with a very safe and certain method. He described the steps of the operation. A modification of Dunham's wire and spindle bougies was suggested as somewhat simpler and more handy. He had not found it necessary to use guards to protect the epiglottis and stomach fistula from chafing. By this plan but one anæsthesia was necessary in each case. The fistula had not leaked and had healed spontaneously. The author reported three cases.

The Surgery of Nerves; the Bridging of Nerve Defects.—Dr. Charles A. Powers, of Denver, reported in detail a personal case of transplantation of four inches of the great sciatic of a dog to the external popliteal of a man. Union was prompt. The fragments stayed in place, and the immediate results seemed to be encouraging, but the ultimate result was a total failure. The examination and report were made eight years after the operation.

Cases of the bridging of nerve defects gathered from literature showed the following number: Grafting, 22; flap operations, 11; implantations (anastomosis), 10; resection of bone, 7; *suture à distance*, 3; tubulization, 1. Analysis of these cases showed that grafting was a failure and should be discarded, while the results in flap operations and anastomosis were about the same, something over 50 per cent. of the cases being successful. While these last operations were not very promising, they seemed at present to be the methods of choice.

Final Results in Secondary Suture of Nerves.—Dr. Emmet Rixford, of San Francisco, reported three cases of secondary nerve suture, of the ulnar at the wrist, of the musculospiral and the facial at the stylomastoid foramen, six, four, and two years respectively after operation. In the first case the atrophic thenar, hypothenar, and interosseous muscles regained their normal volume and function save in so far as motion of the fingers was limited by adhesions the result of fixation and chronic arthritis. In the second case the musculospiral nerve was sutured eight weeks after rupture complicating a fracture of the humerus. A defect of three centimetres was overcome by shortening the humerus that amount, and the result after four years was complete motor and sensory restoration of function, with slight atrophy, half a centimetre difference in circumference in the forearms. In the third case the facial nerve was severed by a narrow tooth beneath the mastoid process. There was complete facial paralysis. Suture was performed eight weeks after the injury. In order to secure tissue for the sutures the mastoid process was cut away with the surgical engine, and the external wall of the Falloppian canal removed for five or six millimetres. Result after two years: Face symmetrical when in repose; eye closes in sleep; may be closed at will; angle of mouth, tip of nose, and chin can be drawn to the paralyzed side.

The prognosis in secondary suture was but little, if at all, inferior to the prognosis in primary suture. In the presence of infection secondary suture was preferable to primary. All scar tissue should be removed, including the whole of the terminal neuroma of the central segment, and the nerve ends united by absorbable suture with the least possible traumatism. Defects, if not too great, could be overcome by stretching, which should be done before section of the nerve ends or by shortening of the bone in certain cases.

Primary Carcinoma of the Liver.—Dr. Leonard Freeman, of Denver, reported a case in which he had operated, with freedom from recurrence at the end of sixteen months.

Thyreoidectomy for Exophthalmic Goître.—Dr. Charles H. Mayo, of Rochester, Minn., in a paper with this title, said the subject of goître was still unsettled as to both ætiology and treatment, although hundreds of articles had been written upon it. Recent investigations concerning the lymphatic system and ductless glands rendered the subject very interesting at this time. Exophthalmic goitre was a distinct type, with many symptoms, involving the mental, muscular, digestive, and circulatory functions, the most common being the tachycardia without other cause. While the mortality was comparatively high, it was among those cases which had already run the gauntlet of most known remedies for the disease, and should not be entirely laid at the surgeon's door.

The remedial agents were exothyreopexy, ligation of the thyreoid arteries, removal of the cervical sympathetic ganglia, thyreoidectomy, and the physiological effect of operations upon other regions.

The author and his brother had operated upon 130 goîtres; forty were of the exophthalmic type, and of these, six had ended fatally as the result of the operation. In the first fifteen there were four deaths, due to lack of judgment in accepting almost moribund cases. There were but two deaths in the last twenty-five cases. Very severe cases were subjected to x ray exposures, and belladonna was given internally for a few days or weeks previous to the operation. Their own cases showed marked improvement in all who survived the operation. Of these, fifty per cent. made a very early recovery, especially of the severe symptoms, such as tachycardia, nervousness, and tremor, twenty-five per cent. did so after several months, and twenty-five per cent. were improved, yet suffered from irregular recurrence of some of the major symptoms.

Gallstones in the Common Bile Duct.—Dr. S. H. WEEKS, of Portland, Maine, read a paper on this subject. After considering the diagnosis and prognosis, he stated that impaction of a gallstone in the common duct rarely caused marked distention of the gall bladder; it caused dilatation of the branches of the hepatic duct, and might result in pronounced and even fatal jaundice. Obstruction of the common duct was always accompanied by jaundice, which was intermittent or remittent where the calculus floated in an enlargement of the common duct, because the system would eliminate the coloring matter of the bile in the interval. The cystic duct might be occluded and give rise to grave symptoms without there being any trace of jaundice or any history of biliary colic. Jaundice with distended gall bladder not due to gallstones was presumptive evidence of malignant disease. Jaundice without distended gall bladder favored the diagnosis of cholelithiasis. The treatment was necessarily surgical.

Primary Splenomegaly, Accessory Spleens, Splenectomy.—Dr. A. F. JONAS, of Omaha, read a paper on this subject, and reported an interesting case.

Removal of the Upper Jaw for Extensive Osteosarcoma.—Dr. S. J. MIXTER, of Boston, reported a case in which there had been excellent results, considering the formidable character of the operation.

A New Interdental Splint. — Dr. RUDOLPH MATAS, of New Orleans, exhibited and described an interdental splint which he had recently devised for the treatment of fractures of the jaw, particularly of the lower jaw, without bandages.

Renal Decapsulation.—Dr. ALEXANDER HUGH FERGUSON, of Chicago, exhibited a patient upon whom he had performed renal decapsulation for chronic interstitial nephritis three months and a half before, with an excellent result.

The following officers were elected: President, Dr. George Ben Johnston, of Richmond, Va.; vice-presidents, Dr. Emmet Rixford, of San Francisco, and Dr. James Bell, of Montreal; secretary, Dr. Dudley P. Allen, of Cleveland; treasurer, Dr. George R. Fowler, of Brooklyn; recorder, Dr. Richard H. Harte, of Philadephia; councillor, Dr. N. P. Dandridge, of Cincinnati. San Francisco was selected as the place for holding the next meeting, the date of which is to be decided by the officers and committee of arrangements.

Miscellany

The Regius Chair of Medicine in Oxford.—Those who succeeded in persuading the authorities to submit to the King the name of William Osler for the Chair of Medicine have done a service not only to Oxford, but to the whole country. Professor Osler, says the *Scottish Medical and Surgical Journal,* for September, 1904, is probably the best known living physician; but when there is added to that qualification width of general culture (too uncommon nowadays), geniality, and charm of speech, Oxford is indeed to be congratulated on its good fortune. Osler's speech in seconding the vote of thanks to the president for his address quite carried away the assemblage, and if there were any hesitating selectors present at the commencement there would be none when the meeting closed.

Vacancies in the Army Medical Staff.—The medical department of the army is not having much success in getting young doctors who can pass the examination for entrance to the Army Medical College with a view to their finally becoming assistant surgeons in the army, says the *Army and Navy Journal* for August 27th. The new plan for obtaining officers for the medical department only went into effect last month, and the results of the first examination held have just been received at the War Department. Out of the twenty-five young physicians who were asked to take the examination only three qualified and will enter the class next month with the assistant surgeons who passed the regular examination early in the spring before the beginning of the new rule governing appointments to the medical department. These three men will take the regular course at the Army Medical College and will then be given another examination to determine whether they are qualified for commissions as assistant surgeons.

A New Treatment for Enuresis.—Revel, in his thesis for the doctorate at Lyons, 1904, according to *Presse médicale,* for August 10, 1904, has discussed a treatment for enuresis devised by Jaboulay and used by him successfully in 3 cases. The treatment is based on the fact that nocturnal incontinence of urine depends upon functional disturbance of the sympathetic nervous system in the region of the solar plexus. The plexus can be reached and modified by the simple operation of injecting artificial serum into the retrorectal region.

A large serum syringe is used. The patient is placed on a table in the lateral decubitus, the limb next the table being extended, the opposite thigh being flexed on the pelvis and the leg on the thigh. After the customary antiseptic precautions, the operator being at the patient's left, the left index finger is introduced into the patient's rectum, and the needle of the syringe is inserted almost vertically at the tip of the coccyx or a little to one side, and, guided by the finger in the rectum, avoids the wall of the latter. As the serum is gradually injected, a slight swelling is felt by the finger, pushing forward the rectal wall. From 3 to 5 ounces of serum may be used. Usually after one injection, there will be no more enuresis but, instead, a temporary retention. This may be relieved by careful catheterization, when the patient will be found to have recovered his normal control of the bladder.

Book Notices.

Bacteriological and Clinical Studies of the Diarrhœal Diseases of Infancy. With Reference to the *Bacillus dysenteriæ* (Shiga) from the Rockefeller Institute for Medical Research, 1904. Edited by SIMON FLEXNER, M. D., and L. EMMETT HOLT, M. D.

This is a series of studies by about twenty bacteriologists and clinicians upon a very interesting and important subject. The bacteriological and pathological studies are summarized by Flexner, and a series of clinical conclusions is formulated by Holt. Flexner asserts that the *Bacillus dysenteriæ* can be isolated from the intestinal discharges and the intestinal mucosa of a large percentage of children suffering from the diarrhœal diseases prevailing along the Atlantic seaboard of the United States during the summer months. The type of *Bacillus dysenteriæ* which preponderated in the children under observation was the so called " Flexner-Harris " organism. The " Shiga " type of the organism was exceptionally met with, and occasionally both types were found in association. Streptococci in large numbers are found frequently associated in cultures with the *Bacillus dysenteriæ*. Both organisms survive side by side and would seem not mutually to inhibit each other's development. What part is to be ascribed to each in the production of the lesions of the intestine and the symptoms of disease is not determined by this investigation. Nor is the possible action of any other of the many bacteria of the discharges excluded by the special findings of the investigation.

Holt, from clinical observations, asserts that in forty-five consecutive cases exhibiting clinical evidence of acute disorders of the intestinal tract observed at the Babies' Hospital, about one half showed the dysentery bacillus. These figures indicate that this organism is a very important ætiological factor, both in winter and in summer, but that it is present in a much larger proportion of cases in summer than in winter. The fact seems to be established that this condition is infectious, but a high degree of infectiousness does not seem probable. As to the serum treatment, Holt concludes that on the whole the results have been disappointing, but he does not feel that an adequate trial has as yet been made.

The Theory and Practice of Infant Feeding. With Notes on Development. By HENRY DWIGHT CHAPIN, A. M., M. D., Professor of Diseases of Children at the New York Postgraduate Medical School and Hospital; Attending Physician to the Postgraduate, Willard Parker, and Riverside Hospitals, etc. Second Edition, Revised. With Numerous Illustrations. New York: William Wood & Co., 1904.

The second edition of this excellent book, though revised and rewritten, has all the essential features of the first edition, which was published two years ago. It is in many regards a remarkable book, for it views the much discussed subject of infant feeding from a standpoint almost entirely new. The tendency of recent times has been to study artificial foods from the chemical standpoint alone. As a matter of fact, chemical composition is but one factor. The milk of one species of animals is not always suitable food for the young of another species, even though the chemical composition of the two may be similar. They usually vary radically in their physical nature and physiological actions. If we compare the mode of living, the digestive systems, the rate of growth, and the stage of development of animals at birth, we see that the milk of each species is adapted to its own digestive system, rate of growth, and degree of development. It is an important truth that the milk of the mother behaves in the stomach of the young animal very much as the food of the mother behaves in her stomach. The young animal is by nature educated to digest in the same manner that it will when it is grown. The milk of the cow, which chews the cud, forms a thick, leathery curd in the infant's stomach, and behaves in a manner quite different from that of breast milk, which is designed for an animal which does not chew the cud, but digests its food largely in the intestine. It should, therefore, be the first principle of feeding that the food of each species should be adapted to the digestive system of that species. These subjects Chapin considers at considerable length, and the first section of his book is unique among works on feeding.

The second section, upon raw food materials, contains much valuable information regarding cow's milk, its bacteriology, preservation, and methods of testing. There is also an excellent discussion upon the use of cereals and the proprietary infant foods. In the section devoted to practical feeding we find less that is new, but it is nevertheless an admirable section. The directions given are simple and concise and avoid much of the complexity of most recent advice upon infant feeding. Altogether the book is a most valuable addition to a very difficult but important subject. It has already had its effect in drawing the attention of the profession to the fact that chemical composition is not the sole guide for the making of a satisfactory food for artificially fed infants.

The Practice of Obstetrics. Designed for the Use of Students and Practitioners of Medicine. By J. CLIFTON EDGAR, Professor of Obstetrics and Clinical Midwifery in the Cornell University Medical College; Visiting Obstetrician to the Emergency Hospital of Bellevue Hospital, etc. Second Edition, Revised. With 1,264 Illustrations, including Five Colored Plates and 38 Figures Printed in Colors. Philadelphia: P. Blakiston's Son & Co., 1904. Pp. xiv-1153.

It is not the usual privilege of the reviewer to be enabled to write two notices of a work on obstetrics within a year. Dr. Edgar's book has rapidly won a place for itself, it seems, judging from the quick appearance of a second edition.

The author has thoroughly revised that portion of his work devoted to the toxæmia of pregnancy, accepting as still in their infancy the more recent views advanced as to the relationship of jaundice, nausea and vomiting during pregnancy, and eclampsia as having their basis in hepatic disturbance. In our judgment, Edgar is correct in giving as large an amount of space as he has given to this subject, for, in the eyes of experienced men, it is of vast and increasing importance—although the hypothesis is not yet proved—and, further, it continues to maintain the encyclopædic character of the book.

Many typographical errors have been corrected and some new illustrations have been added. It is still correct to say that this is the most comprehensive and encyclopædic work on obstetrics which has ever been issued in America, and it is small wonder that it has met with the approval of the profession, in the student body as well as among practitioners.

Obstetrical and Gynæcological Nursing. By Edward P. Davis, A. M., M. D., Professor of Obstetrics in the Jefferson Medical College, Philadelphia, and in the Philadelphia Polyclinic; Obstetrician to the Jefferson and Polyclinic Hospitals, etc. Second Edition, Revised. Philadelphia, New York, London: W. B. Saunders & Co., 1904. (Polished buckram, $1.75.)

We can but echo the favorable impression which we gained from the perusal of the first edition of this work and recorded at the time of its appearance. The book has been thoroughly revised and is an excellent compendium for the nurse on the subject of which it treats. We still think, as we did two years ago, that too much is expected to be learned by our trained nurses; but that is a didactic error for which Dr. Davis's book is in no way to blame. We cordially commend it to nurses' training schools and to nurses who wish to perfect themselves in this branch of work.

Bureau of Health. Annual Report, Philadelphia, 1903. First Annual Message of John Weaver, Mayor of the City of Philadelphia, with the Annual Reports of the Director of the Department of Public Health and Charities and Chief of the Bureau of Health for the Year Ending December 31, 1903. Issued by the City of Philadelphia, 1904.

The annual reports of the director of the Department of Public Health and Charities and of the chief of the Bureau of Health contain much routine matter concerned in the sanitary administration of a large city. The summary of the work of the different laboratories and bureaus contained in the latter report, made by Dr. Abbott, is of much interest and contains many recommendations, so that a short abstract of its contents is justified. During the year 1903 the general death rate in Philadelphia was 18.82 to the thousand of population; the birth rate was 22.5. The chief of the Bureau of Health believes that many births occurring in the city are never reported, and recommends that steps be taken to impress their obligations upon physicians in this connection. He also recommends an investigation of the condition of at least some of the older burying grounds within the city limits. During the year 1903 there were 8,701 cases of typhoid fever reported, with 957 deaths. A study of these cases shows that outbreaks of typhoid fever of more or less gravity are apt to occur in Philadelphia at any season of the year. Such widespread outbreaks are to be attributed to the contaminated water with which the city is supplied. The inspection of the Schuylkill River from Reading to Fairmount Dam is described, and the description forms an interesting comment on the carelessness of American communities in regard to their water. Dr. Abbott says that unless it is possible permanently to prevent the pollutions to which the water of the Schuylkill is at present subjected, the city might advantageously consider its abandonment as a source of domestic supply, notwithstanding complete filtration. Several interesting examples of local outbreaks of typhoid fever from contaminated milk are given.

There were 1,637 cases of smallpox, with 278 deaths. There were a fairly large number of cases during the summer months, which fact is accounted for, first, by a remarkable disregard of the only real protection against the disease, vaccination, and, second, by the misleading results of vaccinations because of the unsatisfactory character of the virus used. From this experience the conclusion is drawn that the manufacture of vaccine virus, as at present conducted, is unsatisfactory in some particulars. Notwithstanding every effort to prevent it, the Municipal Hospital must be regarded as a focus for the dissemination of the disease.

There were 4,188 cases of scarlet fever, with 189 deaths, and 3,043 cases of diphtheria, with 521 deaths. The distribution of these diseases indicates a slight but by no means regular influence of the Municipal Hospital upon their occurrence.

During the last half of the year the milk supply in every case of typhoid fever reported was given careful scrutiny, and during the warm months that of practically all infants suffering from intestinal diarrhœa was similarly investigated. Continuous attention has been paid to the condition of premises where milk is sold. The routine miscroscopical examination of milk for evidences of inflammatory disease of the udder in cows has been actively pursued. The results of tests made by the division of disinfection demonstrate that the most efficient method for use in routine house disinfection is the direct application by means of an atomizer of two per cent. formaldehyde solution to all surfaces of the room.

The Summer Diarrhœas of Infants. Their Ætiology, Pathology, and Treatment. By H. Illoway, M. D., formerly Professor of Diseases of Children, Cincinnati College of Medicine and Surgery, etc. New York: E. R. Pelton, 1904. (Price, $1.00.)

This little book consists of three papers published about twelve years ago and now republished without change, together with a short introduction and summary. Works of this nature are usually more edifying to their authors than to their readers. But few medical men are so far ahead of their times that their writings are not better for revision after a dozen years. The present book is not an exception to this rule. Among other things, the classification adopted leaves much to be desired, the three chief headings being heat stroke, summer complaint, and cholera infantum. The practice of the author of giving milk, even if in small quantities, throughout to be condemned. The practitioner, especially the the course of what he calls "summer complaint" is young practitioner, cannot do better than seek his knowledge upon these diseases from one of the several well known standard textbooks on pædiatrics now published in this country.

A System of Practical Surgery. By Professor E. von Bergmann, M. D., of Berlin; Professor P. von Bruns, M. D., of Tübingen, and Professor J. von Mikulicz, M. D., of Breslau. Vol. III. Translated and Edited by William T. Bull, M. D., Professor of Surgery, College of Physicians and Surgeons, Columbia University, New York, and John B. Solley, M. D., New York. *Surgery of the Extremities.* New York and Philadelphia: Lea Brothers & Co., 1904.

This volume is commensurate with the others in completeness and general excellence. In addition to presenting a full and careful translation of the articles in the second German edition by Hoffa, Hofmeister, Borchardt, Nasse, Reichel, Friedrich, Schreiber, and Wilms, it contains all that has been added to the surgery of the extremities since those articles were published. Thus, under popliteal aneurysm there is introduced a description of Matas's methods of arteriorrhaphy, with a reproduction of the illustrations in his original article. Again, under osteomyelitis of the tibia is added a description of von Mosetig's bone filling material. Its presentation under that special heading is an indication of the disadvantage of a regional arrangement of a surgical textbook, a disadvantage which in this work is largely overcome by the completeness of the index. The illustrations in the German edition have been supplemented by many others, some of them original. Thus, Dr. Solley, collaborating translator, has furnished several capital photographs and skiagraphs, while other figures have been borrowed from the works of Stimson, Whitman, Anger, and others. The English diction is quite elegant (which is not always the case with translations), for which reason one cannot but deplore the occasional lapse into such medical slang as "the application of the Esmarch."

BOOK AND MAGAZINE NOTES.

Physicians, who are unable to visit the Louisiana Purchase Exposition, will appreciate the September number of the *Cosmopolitan*, which contains an admirably written description of many of the exhibits with fine views of the principal buildings.

BOOKS, PAMPHLETS, ETC., RECEIVED.

A Handbook of Pathological Anatomy and Histology, with an Introductory Section on Post Mortem Examinations and the Methods of Preserving and Examining Diseased Tissues. By Francis Delafield, M. D., LL. D., Emeritus Professor of the Practice of Medicine, College of Physicians and Surgeons, Columbia University, New York; and T. Mitchell Prudden, M. D., LL. D., Professor of Pathology and Director of the Department of Pathology, College of Physicians and Surgeons, Columbia University, New York. Seventh Edition. With 13 Full Page Plates and 545 Illustrations in the Text in Black and Colors. New York: William Wood & Co., 1904. [Cloth $5.00.]

Yearbook of the United States Department of Agriculture, 1903. Washington: Government Printing Office, 1904.

Manual of Practical Medical Electricity. The Röntgen Rays, Finsen Light, Radium and Its Radiations, and High Frequency Currents. By Dawson Turner B. A., M. D., F. R. C. P., Ed., M. R. C. P., Lond., President of the Royal Scottish Society of Arts; vice-president of the British Electrotherapeutic Society, etc. Fourth Edition, Revised and Enlarged. New York: William Wood & Co., 1904. [Cloth, $4.25.]

Studies on the Classification and Pathology of Beri-Beri, from the Institute for Medical Research, Federated Malay States. Vol. II, No. 2. By Hamilton Wright, M. D. (McGill). Honorary Fellow of Johns Hopkins University (Late Director Institute Medical Research, Federated Malay States). Printed by Authority of the Resident General, F. M. S. London: John Bale, Sons & Danielsson, Ltd., December, 1903. [Price, Three Shillings and Sixpence net.]

Pathological Technique. A Practical Manual for Workers in Pathological Histology and Bacteriology, including Directions for the Performance of Autopsies and for Clinical Diagnosis by Laboratory Methods. By Frank Burr Mallory, A. M., M. D., Associate Professor of Pathology, Harvard University Medical School; First Assistant Visiting Pathologist to the Boston City Hospital, etc.; and James Homer Wright, A. M., M. D., Director of the Clinicopathological Laboratory of the Massachusetts General Hospital; Instructor in Pathology, Harvard University Medical School. Pp. 469, with 156 Illustrations. Philadelphia, New York, London: W. B. Saunders & Co., 1904. [Cloth, $3.00.]

The Principles of Hygiene. A Practical Manual for Students, Physicians, and Health Officers. By D. H. Bergey, A. M., M. D., Assistant Professor of Bacteriology, University of Pennsylvania. Pp. 536. Philadelphia, New York, London: W. B. Saunders & Co., 1904.

A Text Book of Materia Medica. Including Laboratory Exercises in the Histological and Chemical Examination of Drugs. For Pharmaceutical and Medical Schools and for Home Study. By Robert A. Hatcher, Ph. G., M. D. Instructor in Pharmacology, Cornell University Medical School, New York; Formerly Professor of Materia Medica and Vegetable Histology, Cleveland School of Pharmacy, etc.; and Torald Sollmann, M. D., Associate Professor of Pharmacology and Materia Medica in the Medical Department of Western Reserve University, Cleveland, Ohio. Pp. 411. Illustrated. Philadelphia, New York, London: W. B. Saunders & Co., 1904. [Flexible leather, $2.00.]

A Text Book of Diseases of Women. By Charles B. Penrose, M. D., Ph. D., Formerly Professor of Gynæcology in the University of Pennsylvania; Surgeon to the Gynæcean Hospital, Philadelphia. Pp. 550, with 225 Illustrations. Fifth Edition, Revised. Philadelphia, New York, London: W. B. Saunders & Co., 1904. [Cloth, $3.75.]

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Official News.

Public Health and Marine Hospital Service:

Official List of the Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the Public Health and Marine Hospital Service for the seven days ending September 7, 1904:

Ballard, J. C., Acting Assistant Surgeon. Granted leave of absence for seven days from September 5, 1904.

Brooks, S. D., Surgeon. Granted leave of absence for thirty days from September 2nd, on account of sickness.

Holsendorf, B. E., Pharmacist. Department letter of August 6, 1904, granting Pharmacist Holsendorf leave of absence for thirty days from September 1, 1904, amended so that said leave shall be for twenty-four days only.

Hunt, Reid, Pharmacologist. Detailed to represent the Service at meeting of American Pharmaceutical Association at Kansas City, Mo., September 5 to 10, 1904.

Hobdy, W. C., Passed Assistant Surgeon. Granted leave of absence for seven days from August 20, 1904, under the provisions of paragraph 191 of the regulations.

Kerr, J. W., Passed Assistant Surgeon. Granted leave of absence for four days from September 5, 1904, in accordance with the provisions of paragraph 191 of the regulations.

La Grange, J. V., Pharmacist. Granted leave of absence for twenty-three days from September 15, 1904.

Mackall, B. McV., Acting Assistant Surgeon. Granted leave of absence for seven days under the provisions of paragraph 210 of the regulations.

O'Gorman, T. V., Pharmacist. Department letter of August 10, 1904, granting Pharmacist O'Gorman leave of absence for thirty days from August 18, 1904, amended so that said leave shall be effective from August 24, 1904.

Robinson, D. E., Passed Assistant Surgeon. Granted leave of absence for two days from September 6, 1904, under the provisions of paragraph 191 of the regulations.

Roehrig, A. M., Pharmacist. Granted leave of absence for thirty days from September 12, 1904.

Stearns, W. L., Pharmacist. Granted leave of absence for twenty-nine days from September 6, 1904.

Board Convened.

Board convened to meet at Washington, D. C., October 3, 1904, for the examination of candidates for appointment as Assistant Surgeon in the Service. Detail for the board—Surgeon W. P. McIntosh, chairman; Surgeon G. M. Guiteras; Passed Assistant Surgeon John F. Anderson, recorder.

Promotions.

Assistant Surgeon D. H. Currie commissioned as Passed Assistant Surgeon to rank as such from July 28, 1904.

Assistant Surgeon J. M. Holt commissioned as Passed Assistant Surgeon to rank as such from July 27, 1904.

Assistant Surgeon F. E. Trotter commissioned as Passed Assistant Surgeon to rank as such from July 27, 1904.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the week ending September 9, 1904:

Smallpox—United States.

Place.	Date.	Cases.	Deaths.
Dist. of Columbia—Washington	Aug. 27-Sept. 3	1	
Florida—Jacksonville	Aug. 27-Sept. 3	1	
Illinois—Chicago	Aug. 27-Sept. 3	5	
Louisiana—New Orleans	Aug. 27-Sept. 3	4	
		1 case imported.	
Massachusetts—Lawrence	Aug. 27-Sept. 3	1	
Massachusetts—North Adams	Aug. 27-Sept. 3	22	1
Michigan—At 51 localities	Aug. 20-27	Present.	
Ohio—Cincinnati	Aug 19-26	1	
Pennsylvania—Philadelphia	Aug. 27-Sept. 3	1	
Pennsylvania—Williamsport	Aug. 27-Sept. 3	1	
Tennessee—Memphis	Aug. 27-Sept. 3	1	
Tennessee—Nashville	Aug. 27-Sept. 3	3	

Smallpox—Foreign.

Place.	Date.	Cases.	Deaths.
Brazil—Rio de Janeiro	July 24-Aug. 7	549	210
Canada—Winnipeg	Aug. 13-20	1	
France—Paris	Aug. 13-20	8	1
Great Britain—Glasgow	Aug. 19-26	2	
Great Britain—London	Aug. 13-20	2	
Great Britain—Manchester	Aug. 6-20	6	
Great Britain—Nottingham	Aug. 13-20	2	
India—Bombay	Aug. 2-9	8	
India—Karachi	July 31-Aug. 7	3	
Italy—Palermo	Aug. 13-20	37	4
Mexico—City of Mexico	Aug. 14-21	12	
Russia—St. Petersburg	Aug. 6-13	7	2
Russia—Warsaw	July 16-30		44
Spain—Barcelona	Aug. 10-20		8
Turkey—Alexandretta	Aug. 6-13		6
Turkey—Beirut	Aug. 6-20	Present.	
Turkey—Constantinople	Aug. 7-21		16
Turkey—Smyrna	Aug. 7-14		2

Yellow Fever.

Place.	Date.	Cases.	Deaths.
Brazil—Rio de Janeiro	July 24-Aug. 7	6	2
Ecuador—Guayaquil	Aug. 3-10		2
Mexico—Coatzacoalcos	Aug. 20-27	5	1
Mexico—Merida	Aug. 21-27	3	2
Mexico—Tehuantepec	Aug. 21-27		1
Mexico—Vera Cruz	Aug. 20-27	4	

Cholera.

Place.	Date.	Cases.	Deaths.
India—Bombay	Aug. 2-9		34
India—Calcutta	July 30-Aug. 6		4
Persia—Teheran	Aug. 6	Nearly extinct	
Turkey—Bagdad and vicinity	July 16-23	314	138

Plague.

Place.	Date.	Cases.	Deaths.
Brazil—Rio de Janeiro	July 24-Aug. 7	15	6
China—Amoy	July 16-30		15
			Estimated.
Egypt	July 30-Aug. 6	12	7
India—Bombay	Aug. 2-9	5	51
India—Calcutta	July 30-Aug. 6		8
India—Karachi	July 31-Aug. 7	5	2
Peru—Eten	Sept. 1	Present.	

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending September 10, 1904:

Godfrey, Guy C. M., Captain and Assistant Surgeon. Granted leave of absence for seven days.

Gregory, Junius C., First Lieutenant and Assistant Surgeon. Reports for temporary duty at Fort Miley, Cal.

Reilly, John J., First Lieutenant and Assistant Surgeon. Sick leave of absence extended thirty days.

Rockhill, Edward P., First Lieutenant and Assistant Surgeon. Ordered to proceed from the Presidio of San Francisco, Cal., to Fort Miley, Cal., for temporary duty.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending September 10, 1904:

De Valin, C. M., Passed Assistant Surgeon. Unexpired portion of leave of absence revoked; ordered to duty at the Naval Hospital, Philadelphia, Pa.

Drake, N. H., Surgeon. Detached from the *Lancaster* and ordered to the *Hancock*.

Guest, M. S., Passed Assistant Surgeon. Ordered to the *Lancaster*.

Urie, J. F., Surgeon. Detached from the *Missouri* and granted sick leave of absence for three months.

Births, Marriages, and Deaths.

Married.

Eggleston—Dunn.—In Binghamton, N. Y., on Thursday, September 8th, Dr. Horace Wardner Eggleston and Miss Mabel E. Dunn.

Eshner—Friedberger.—In Philadelphia, Pennsylvania, on Wednesday, September 7th, Dr. Augustus A. Eshner and Miss Julia Friedberger.

Grammer—Strack.—In Louisville, Kentucky, on Wednesday, August 31st, Dr. Henry A. Grammer and Miss Ida May Strack.

Grimes—Parrott.—In Hillsboro, Illinois, on Thursday, July 7th, Dr. Leroy Grimes and Miss Parrott.

Jacobus—Barnum.—In Sanborn, N. Y., on Wednesday, August 31st, Dr. Samuel Ingham Jacobus and Miss Edith Elizabeth Barnum.

Powell—Wise.—In Leesburg, Virginia, on Saturday, September 3rd, Dr. William D. Powell and Miss Jane Cecilia Wise.

Randolph—Chandler.—In Kansas City, Missouri, on Wednesday, August 31st, Dr. Arthur G. Randolph and Miss Pauline Chandler.

Smith—Munier.—In Little Falls, N. Y., on Thursday, September 1st, Dr. George Henry Smith and Miss Agatha Rosalie Munier.

Died.

Brosnan.—In Brooklyn, N. Y., on Friday, September 9th, Dr. John Thomas Brosnan, in the thirtieth year of his age.

Buffet.—In Jersey City, N. J., on Friday, September 9th, Dr. Edward Payson Buffet, in the seventy-first year of his age.

Chancellor.—In Ardmore, Indian Territory, on Wednesday, August 24th, Dr. William Chancellor.

Gormly.—In Brooklyn, N. Y., on Tuesday, September 6th, Dr. John L. Gormly, in the thirty-first year of his age.

Guilbert.—In New York, N. Y., on Sunday, August 28th, Dr. Samuel H. Guilbert, in the seventieth year of his age.

Keene.—In Lancaster, Pennsylvania, on Wednesday, September 7th, Dr. Alfred Keene, in the forty-fourth year of his age.

Martin.—In New York, N. Y., on Saturday, September 3rd, Dr. William Hammett Martin, in the forty-first year of his age.

Spranger.—In San José, California, on Saturday, September 3rd, Dr. Francis X. Spranger.

Weida.—In Allentown, Pennsylvania, on Tuesday, August 30th, Dr. Charles B. Weida.

New York Medical Journal
AND
Philadelphia Medical Journal.

A Weekly Review of Medicine

Vol. LXXX, No. 13. SATURDAY, SEPTEMBER 24, 1904 Whole No. 1347.

Original Communications.

SUMMARY OF AN EXPERIMENTAL RESEARCH INTO STRYCHNINE IN SHOCK AND COLLAPSE, WITH ILLUSTRATIVE PROTOCOLS.

By G. W. CRILE, M. D.,

CLEVELAND, OHIO.

SUMMARY.

In the majority of instances, in the normal animal, when sufficient amount of strychnine was given to cause an increased excitability of the spinal cord, as indicated by heightened reflexes and an increased muscular tone, a rise in blood pressure was noted. In smaller doses, occasionally, a slight immediate fall, a slight immediate rise, or later irregularities were noted; but on making forty-eight careful measurements, it was found that no noteworthy change occurred.

The stage of increased excitability before mentioned represented the border land between the dosage without effect, and that of maximum effect. When more was given after this stage had been reached, convulsions appeared and the blood pressure rose abruptly and high, sometimes even more than doubling the normal. The curve during the convulsions was exceedingly irregular and continued for some time above the normal, exhibiting a secondary rise if later convulsions occurred. The simultaneous appearance of the rise in the blood pressure and increased tendon reflexes occurred in those cases in which very small doses were given at repeated intervals, and the cases in which this effect was obtained in a single dose. The stupendous rise and the convulsions also occurred simultaneously.

In a series of experiments in which convulsions were prevented by physiological doses of curare, and in which convulsive doses of strychnine were given, the blood pressure rose as high as in the experiments in which convulsions did occur.

In another series, both vagi and accelerantes were severed, curare given, and varying doses of strychnine administered. The general effect upon the blood pressure did not differ materially from the effects of corresponding doses upon the normal animal.

In the curarized animal and in the animal having both vagi and both accelerantes severed, the rise following the physiological dose of strychnine continued from half an hour to one hour and a half. Repetition of the dose caused a second rise, in some instances as high as the first, though usually not so high, and it did not continue more than half as long. On administering the third dose, the blood pressure generally rose, though not so high, and continued for a shorter period, usually but a few minutes. On repeating more doses, a period was soon reached, in which no further effect was noted. After each dose, when the effect had worn off, the blood pressure fell to a lower level than it was at before the injection was given, until finally it reached the level, usually between 20 and 30 mm., which was not altered by any additional dosage. If during the time of maximum rise following a physiological dose, an equal or greater dose was given, a temporary rise of from 5 to 10 mm., continuing but a few seconds, was noted. Burning the paw and electrically stimulating the sciatic nerve, so long as the repeated doses of strychnine caused a rise in blood pressure, were followed by a rise of about the same height as, though of less duration than, that in the normal animal.

When strychnine no longer produced a rise, no effect was noted on burning the paw or electrically stimulating the sciatic nerve. The length of the pulse wave was markedly increased during the rise of the blood pressure. In some instances, it was increased five-fold. As the blood pressure declined, the length of the pulse wave diminished and finally disappeared.

During the maximum stimulation, the blood pressure curve was usually even, but as the strychnine effect wore off, the curve became irregular; between the end of the maximum curve and the beginning of the final breakdown the curve was quite irregular. After the inauguration of the final breakdown the curve became more irregular. When this stage was reached it was usually not possible to distin-

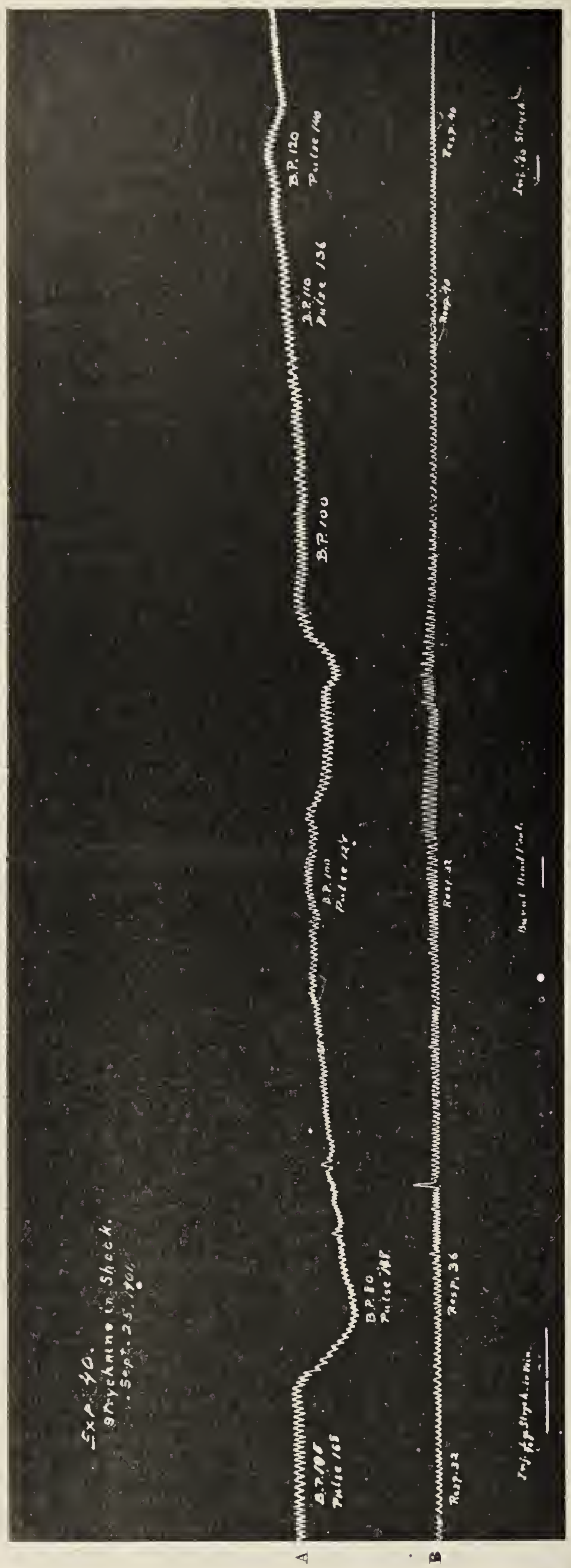

FIG. 1.—A, blood pressure; B, respiratory tracing. The animal was reduced to moderate shock, then 75 milligrammes (1-90 grain) of strychnine were given intravenously. Note the immediate fall in the blood pressure, followed by a gradually increasing rise until the pressure has risen 15 mm. higher than the level it was before the strychnine was given.

guish between the terminal curve in the strychnine experiments and the terminal curve of the shock experiments. Small doses of strychnine, on the whole, seemed to improve respiration. Larger doses were frequently followed by respiratory failure. After the blood pressure had reached the stage of terminal helplessness, the administration of saline solution caused a rise, which continued for some time during the flow. On cessation of the saline infusion, the blood pressure fell to the previous level and, if the infusion continued beyond a certain limited period of time, the blood pressure fell to or near its former level during the infusion. The administration of adrenalin, after the final strychnine injection had occurred, was followed by a rise in proportion to the amount given—in one instance as high as 260 mm. Bandaging and other means of external pressure produced a rise of blood pressure. Digitalis administered in the terminal breakdown in the strychnine experiments in most instances produced no rise in the blood pressure.

In the animals in which both vagi and both accelerantes had been severed, no change in pulse rate was noted in any dose that was given. In animals in which varying degrees of shock were produced, strychnine caused a rise of blood pressure proportional to the degree of the shock. In the cases in which a slight shock existed, the rise and its continuation were correspondingly less. On repeating the injections, if the shock was deep, frequently no rise occurred. If the shock was moderate some rise might occur. In the cases in which the shock was nearly to the fatal degree, only a slight rise occurred, and lasted but a few minutes, after which no amount of strychnine produced a rise. In any degree of shock less than fatal after the administration of a therapeutic dose of strychnine, the animal passed into a deeper degree of shock.

It was noted in a number of experiments that electrical stimulation of the sciatic nerve or burning of the paw caused a rise in the blood pressure to such a degree as is usually noted in the corresponding amount of shock. After a physiological dose of strychnine, no rise occurred on repeating such stimulation.

In the experiments in which the animals were bled until the blood pressure had fallen to the level of the final breakdown from excessive doses of strychnine, the administration of the therapeutic doses caused a marked rise in the blood pressure. In the experiments in which the medulla was cocainized, therapeutic doses of strychnine were given, causing convulsions, but a momentary slight rise in the blood pressure occurred. This rise was noted only during the convulsions.

In another series in which both the medulla and the *spinal cord* were cocainized, and an excessive dose of strychnine was given, convulsions did not occur and no rise in blood pressure was noted.

Adrenalin in the foregoing series caused a rise in the blood pressure proportional to the dose—a rise as high as 260 mm. Hg.

ILLUSTRATIVE PROTOCOLS.

1. Dog. Ether anæsthesia. The animal was reduced to shock by exposing and manipulating the intestines.

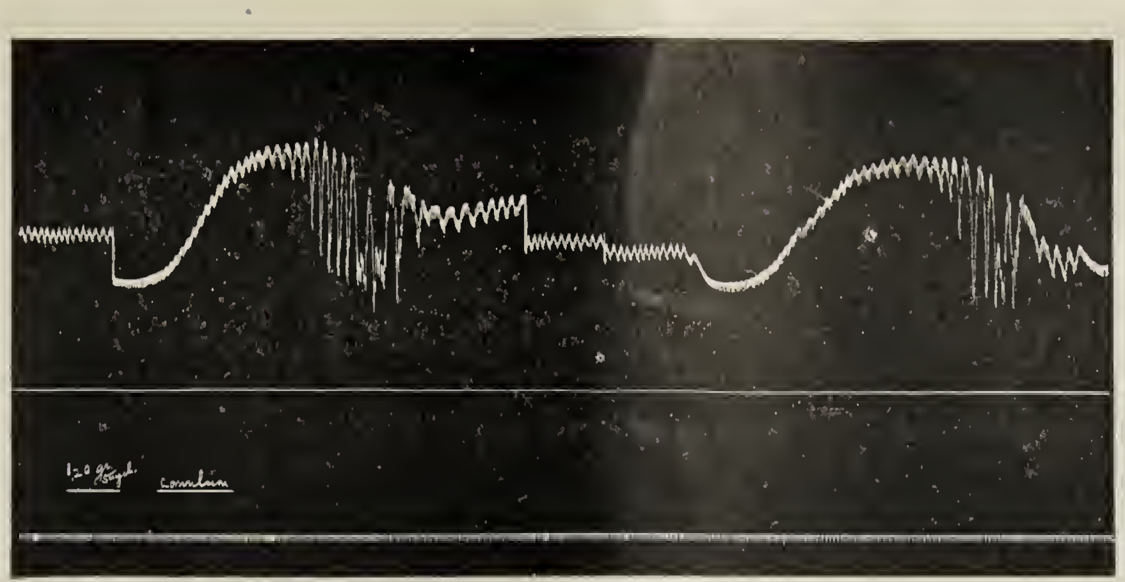

FIG. 2.—Note the marked rise in the blood pressure following the injection of 1-20 grain of strychnine. The long excursions were caused by the convulsions. After the animal had become quiet peripheral stimulation caused a second convulsion.

At 12.26, blood pressure, 105 mm.; pulse, 168; respiration 32.

At 12.28, $^{1}/_{90}$ grain of strychnine was injected. Blood pressure, 80 mm.; pulse 148; respiration 36.

At 12.29, blood pressure, 100 mm.; pulse, 128; respiration, 32.

At 12.30, the left hind foot was burned.

At 12.31, blood pressure, 100 mm.; pulse, 128; respiration, 32.

At 12.34, blood pressure, 110 mm.; pulse, 136; respiration, 40.

At 12.35, blood pressure, 120 mm.; pulse, 140; respiration, 40.

The rise in pressure was gradual and well sustained.

2. Mongrel dog; weight, 14 kilos; good condition. Morphine and ether anæsthesia.

At 1.35, blood pressure, 140 mm.; pulse, 148; respiration, 24.

At 1.40, blood pressure, 140 mm.; pulse, 144; respiration, 36.

At 1.42, $^{1}/_{20}$ grain of strychnine was injected.

After an immediate fall in the blood pressure convulsions appeared, during which the blood pressure rapidly rose higher than normal. A few minutes after the cessation of the convulsion peripheral irritation caused a second convulsion, attended by a marked rise in the blood pressure, with great irregularities.

At 1.47, $^{1}/_{60}$ grain of strychnine was given.

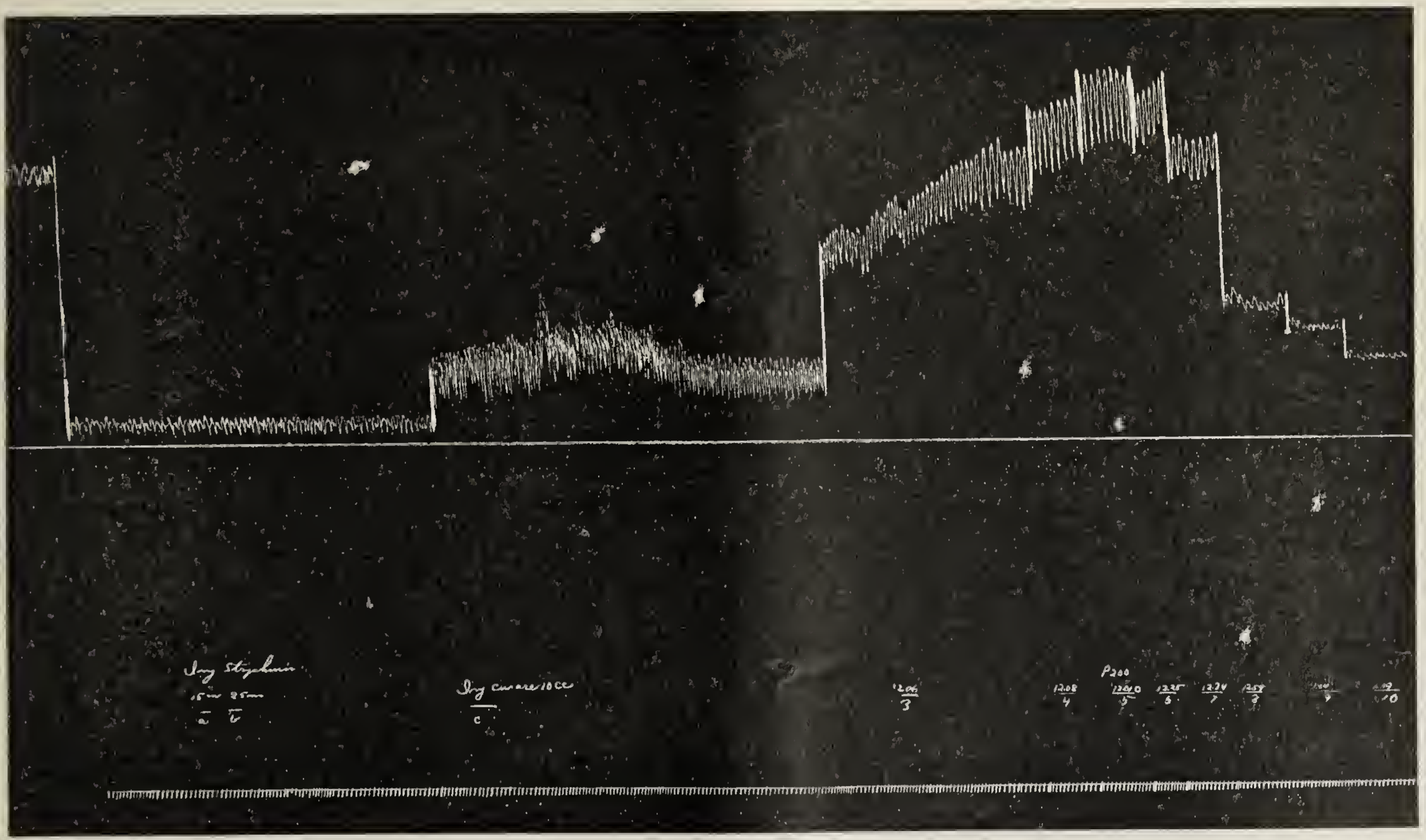

FIG. 3.—Extreme collapse from asphyxia. A, carotid blood pressure; B, abscissa line; C, time in seconds. After a preliminary injection of curare, 6 mg. (3-32 grain) of strychnine was given. Note the rapid rise in the blood pressure, followed by an equal fall during one hour and fourteen minutes. Compare the marked rise (following strychnine) in collapse, as compared with the slight rise in other experiments, if any effect at all is noted, in an equally low blood pressure from pure shock. This is additional evidence that in shock the vasomotor centre is exhausted. Low blood pressure from causes other than an exhaustion of the vasomotor centre is designated collapse.

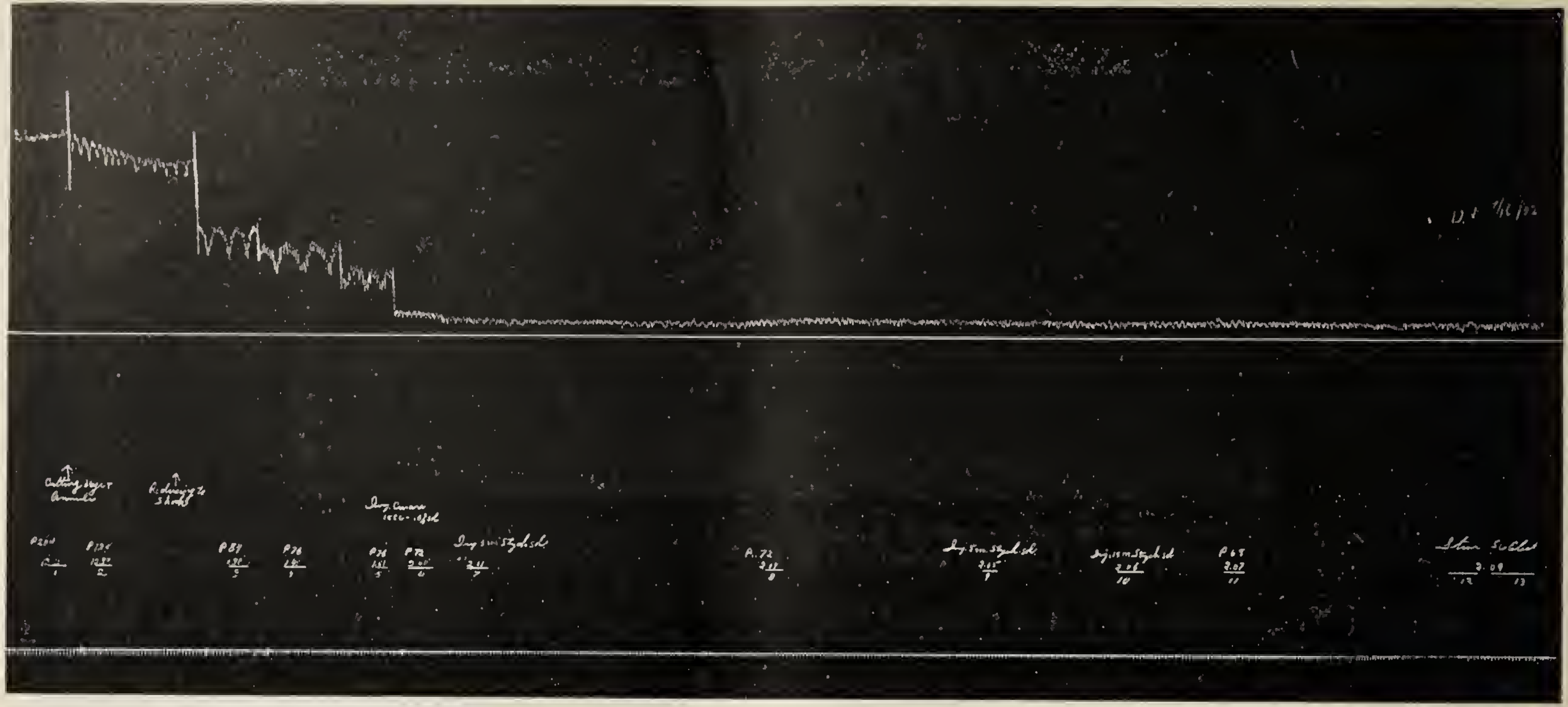

FIG. 4.—Both vagi and accelerantes were severed; then the animal was subjected to the usual technique for the production of shock, which appears as in control experiments. After the shock had become profound, the animal was curarized. Then on burning the paw and stimulating the sciatic nerve and administering physiological doses of strychnine intravenously, no rise in the blood pressure was noted. Neither did asphyxia cause a rise. This experiment shows that shock may be produced independently of the heart or its nerve mechanism, and quite as readily as in controls; also that the vasomotor centres become exhausted.

At 1.50, blood pressure, 140 mm.; pulse, 144; respiration, 124.

At 1.51, $^1/_{30}$ grain of strychnine was injected.

At 1.55, blood pressure, 140 mm.; pulse, 180; respiration, 36.

At 2.00, blood pressure, 140 mm.; pulse, 200; respiration, 36.

At 2.01, $^1/_{15}$ grain of strychnine was injected; convulsions appeared.

At 2.06, blood pressure, 146 mm.; pulse, 144; respiration, 48.

3. Dog; mongrel; male; fair condition; old; weight, four kilos. Initial blood pressure, 180 mm.; pulse, 176; length of stroke, 10 mm. While executing the technique of bloodlessly severing the accelerantes and vagi, the respiration tube was inadvertently kinked, causing the blood pressure to fall 10 mm. The pulse recorded 12, and there was extreme cyanosis. The animal was almost dead. Artificial respiration was resorted to, but there was apparently no progress towards recovery.

One tenth of a grain of strychnine was injected into the jugular vein. Blood pressure rose to 40 mm.; stroke, 25 mm. Moderate convulsions were

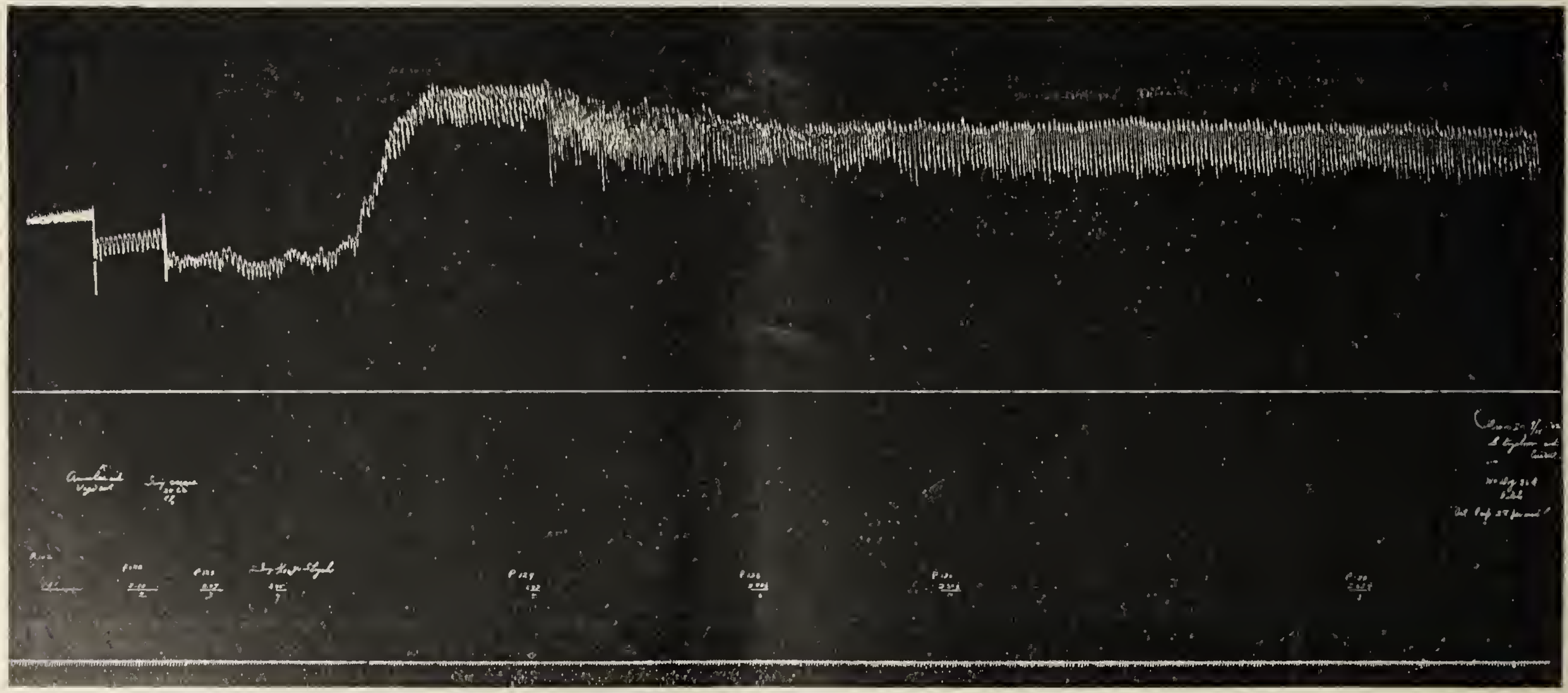

FIG. 5.—A, arterial blood pressure; B, abscissa line; C, time in seconds. This tracing was obtained from a normal animal in which both vagi and both accelerantes had been severed and a physiological dose of curare given. Two mg. of strychnine were given intravenously. Note the abrupt and sustained rise in the blood pressure; also note the marked increase in the length of the pulse waves. The two following cuts are continuations of this experiment. This experiment is intended to illustrate the exhaustion of the vasomotor centre by the stimulating effects of strychnine.

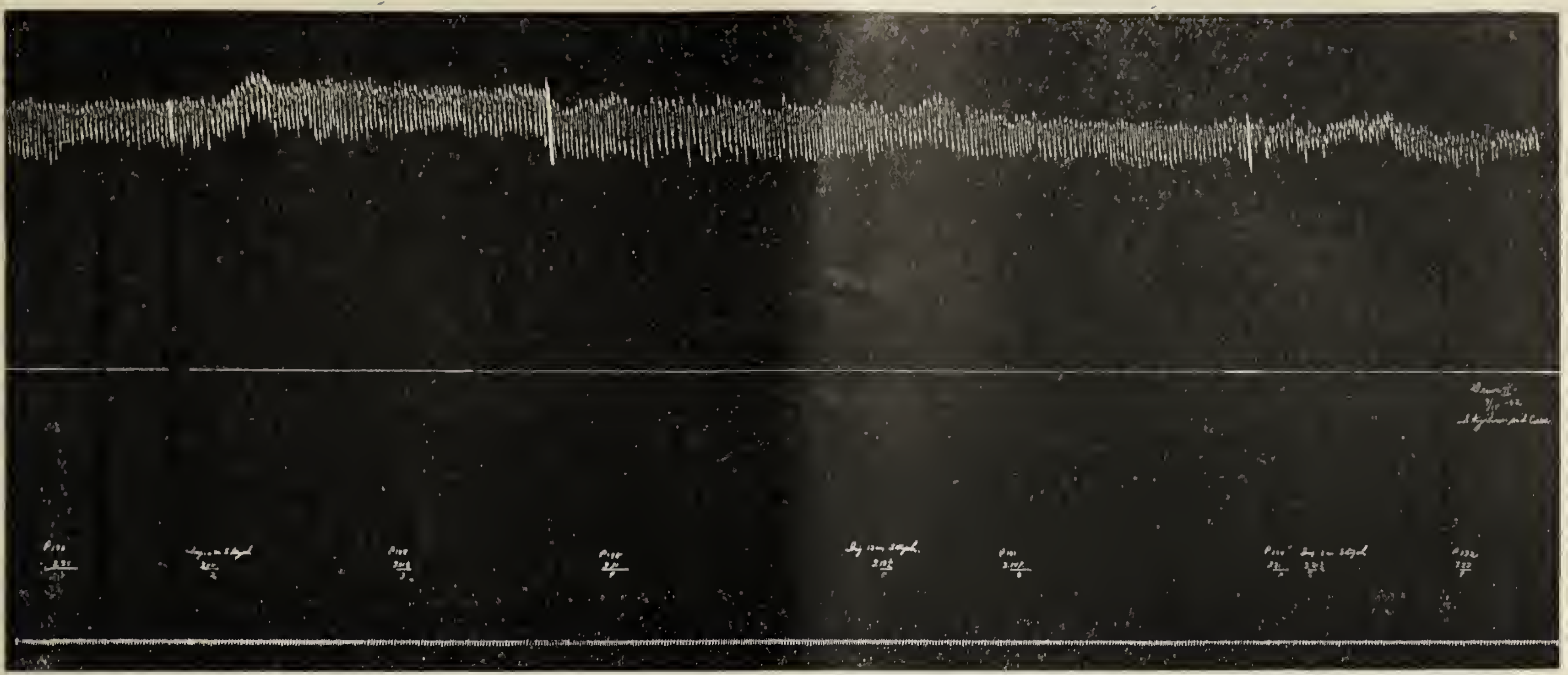

FIG. 6 (Fig. 5 continued.)—Note the continued high pressure and the gradual decline in the length of the pulse wave. Three additional doses of strychnine, of two mgs. each, were given, neither causing more than a slight momentary rise.

noted; these were overcome by the administration of 2.6 drachms of 0.5 per cent. solution of curare. The blood pressure then continued to rise until it reached 200 mm.

At 12.10, blood pressure, 200 mm.; pulse, 200; stroke, 40 mm.

At 12.34, blood pressure, 165 mm.

At 12.54, blood pressure, 80 mm.

At 1.09, blood pressure, 50 mm. The animal was then killed.

4. Dog; male; mongrel; good condition; weight, 5 kilos.

At 12.05, the initial blood pressure was 125 mm.; stroke, 8 mm.; pulse, 124.

At 12.37, both vagi and accelerantes were severed. Blood pressure, 110 mm.; pulse, 134.

At 12.45, the animal was reduced to surgical shock by skinning, sponging the denuded surfaces, and manipulating the intestines.

At 1.45, blood pressure, 50 mm.; pulse, 76.

At 1.49, respiration failed; artificial respiration was begun. Blood pressure, 35 mm.; pulse, 76.

At 2.00, ½ ounce of a 0.5 per cent. solution of curare was intravenously injected.

At 2.01-30, $^1/_{90}$ grain of strychnine was intravenously injected. A very slight change in the blood pressure followed.

At 2.05, $^1/_{90}$ grain of strychnine was intravenously injected. No change in the blood pressure was obtained.

At 2.06, $^1/_{30}$ grain of strychnine was intravenously injected. A slight fall in the blood pressure was noted.

At 2.07, blood pressure, 14 mm.; pulse, 68.

At 2.09, the sciatic nerve was electrically stimulated. No change in the blood pressure was recorded.

At 2.20, stimulation of the splanchnic nerve, peripheral and central, produced no apparent effect.

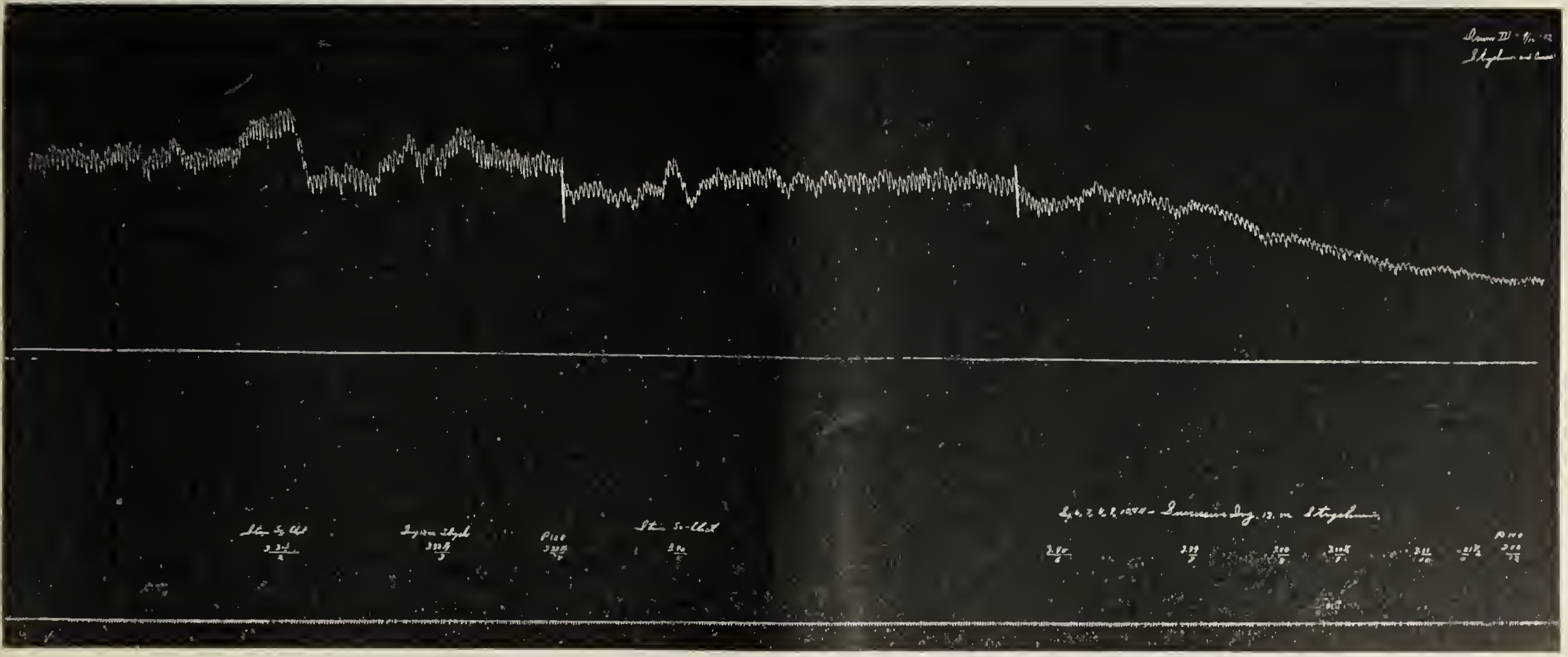

FIG. 7. (Fig. 6 continued.)—Note the markedly irregular blood pressure curve, the diminution in the length of the pulse wave, and the rapid decline in the blood pressure. Repeated injections of strychnine caused no further change in the pressure. Stimulating the sciatic nerve and burning the paw no longer caused a rise in the blood pressure. The vasomotor centre had become exhausted, being a physiological equivalent of traumatic shock of corresponding degree.

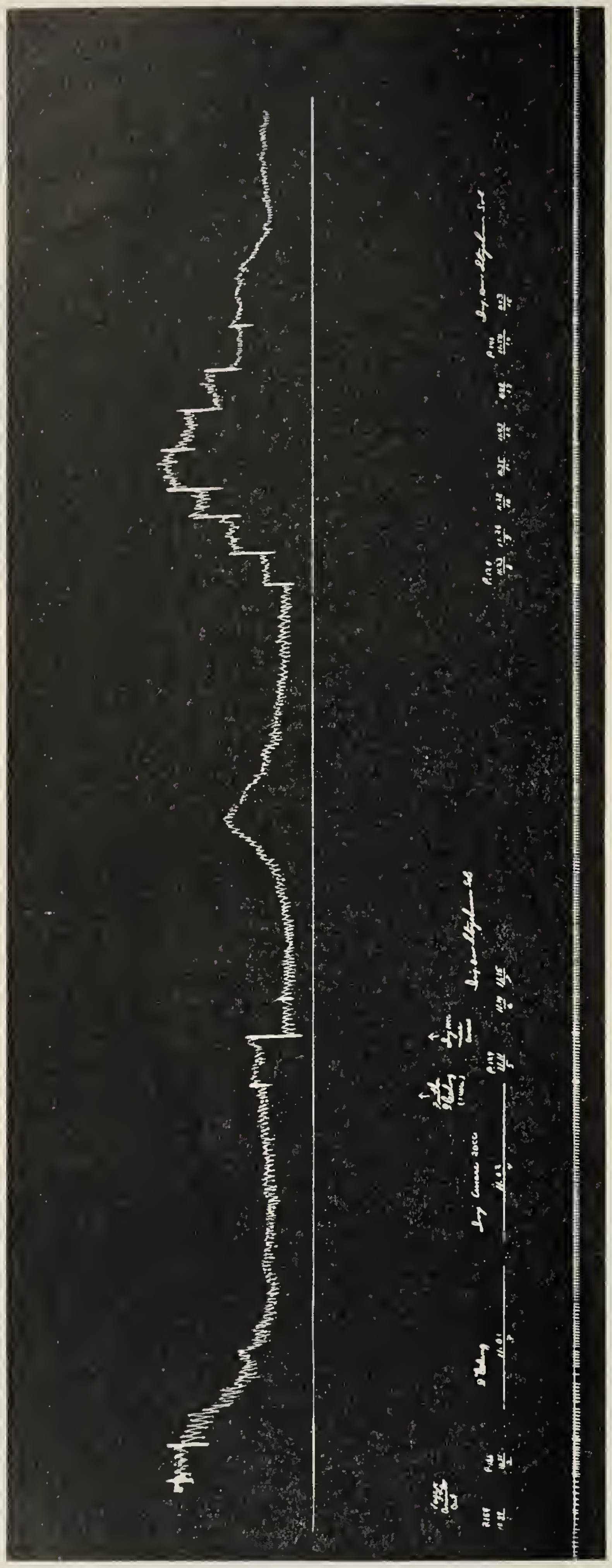

FIG. 8.—On the effect of strychnine in severe hæmorrhage. A, carotid pressure; B, abscissa line; C, time in seconds. The primary marked fall in the left part of tracing was due to hæmorrhage. At the point indicated, at 11.02 a.m., curare was administered, after which 8 mgs. of strychnine were administered intravenously. The rise noted on the right and continuing forty minutes followed. Compare the marked effect of strychnine upon the blood pressure in the collapse from hæmorrhage without fatigue of the vasomotor centre in this experiment, with the negative effect in an equally low blood pressure from exhaustion of the vasomotor centre (shock) in other experiments.

At 2.25, $^1/_{15}$ grain of strychnine was injected intravenously. No change was observed.

At 2.28 the animal died. Blood pressure, 5 mm. at the moment of death.

5. Female mongrel dog; good condition; weight, twelve kilos.

At 1.57, initial blood pressure, 135 mm.; stroke, 12 mm.; pulse, 152.

At 2.10, the accelerantes and vagi were exposed by bloodless dissection and severed. Blood pressure, 120 mm.; stroke, 15 mm.; pulse, 140.

At 2.19, 0.75 ounce of a 0.5 per cent. solution of curare was intravenously injected. Artificial respiration was begun.

At 2.43, blood pressure, 120 mm.; stroke, 115 mm.; pulse, 120.

At 2.46, $^1/_{75}$ grain of strychnine was given, following which there was a sharp rise in the blood pressure, reaching 200 mm.; stroke, 20 mm.; pulse, 124.

At 2.47-30, the heart became intermittent. The style executed excursions of 40 mm.

At 2.48-30, blood pressure, 200 mm.; stroke, 40 mm.; pulse, 136.

At 2.59, blood pressure, 185 mm.; stroke, 30 mm.; pulse, 146.

At 3.03, $^1/_{30}$ grain of strychnine was intravenously injected. A sharp rise in the blood pressure to 200 mm. was noted.

At 3.11, blood pressure, 185 mm.; stroke, 35 mm.; pulse, 148.

At 3.14, $^1/_{30}$ grain of strychnine was intravenously injected. No change in the blood pressure was noted. The stroke decreased in length to 20 mm.

At 3.21, blood pressure, 175 mm.; stroke, 30 mm.; pulse, 132.

At 3.21-30, $^1/_{30}$ grain of strychnine was intravenously injected; no effect upon the blood pressure was observed.

At 3.23 a steady decline in the blood pressure began.

At 3.31, blood pressure, 160 mm.; stroke, 12 mm.; pulse, 132.

At 3.31-30, electrical stimulation of the sciatic nerve was followed by a gradual rise of 35 mm. in the blood pressure; later an abrupt fall of 45 mm. occurred. The blood pressure remained constant at 140 mm.

At 3.32-15, $^1/_{30}$ grain of strychnine was intravenously injected. The blood pressure rose 20 mm. and fell an equal amount in seven minutes.

At 3.39, blood pressure, 130 mm. Electrical stimulation of the sciatic nerve caused an abrupt rise of 20 mm., followed by an equal fall.

At 3.45, blood pressure, 140 mm.

At 3.48, blood pressure, 120 mm., after which at intervals of one minute six injections of $^1/_{30}$ grain of strychnine were given intravenously. The blood pressure declined from 120 to 40 mm.; stroke, 8 mm.; pulse, 104.

At 3.58, blood pressure rose to 80 mm.; stroke, 10 mm.; pulse, 96.

At 3.58-45, six more injections of $^1/_{30}$ grain of strychnine at intervals of one minute were given intravenously. The blood pressure fell from 80 to 65 mm.; the pulse from 104 to 88.

At 4.16, electrical stimulation of the sciatic nerve was followed by a slight rise in the blood pressure.

At 4.50, similar stimulation produced no effect. The electrical stimulation of the distal end of the splanchnic nerve was followed by an irregular rise and fall. Similar stimulation of the central end produced no effect.

At 5.05-30, blood pressure, 40 mm.; stroke, 12 mm.; pulse, 140. The right splanchnic nerve was then exposed, severed, and the distal end electrically stimulated. An abrupt rise of 25 mm. in the blood pressure followed. Similar stimulation of the central end produced no effect.

At 5.08-30, blood pressure, 30 mm.

At 5.09, $^1/_{15}$ grain of strychnine was intravenously injected. No change in the blood pressure was noted.

At 5.13, electrical stimulation of the distal end of the splanchnic nerve was followed by a gradual rise of 15 mm. in the blood pressure. When the stimulation was withdrawn the blood pressure declined an equal amount.

At 5.14-30, blood pressure, 30 mm.; stroke, 8 mm.; pulse, 92.

At 5.16, $^1/_{15}$ grain of strychnine was intravenously injected. Electrical stimulation of the sciatic nerve now produced no apparent change in the blood pressure. Eight successive injections of four milligrammes each of strychnine were administered intravenously at intervals of one minute. The blood pressure remained at 30 mm.; stroke, 12 mm.; pulse, 56.

At 6.12, the animal was allowed to die of asphyxia. There was no rise in the blood pressure during its development. The heart continued to beat six minutes after artificial respiration had been discontinued.

6. Dog; female; young and in good condition; weight, six kilos. Normal blood pressure, 110 mm.; pulse, 160; stroke, 10 mm.

At 10.51, both vagi and accelerantes were severed. Blood pressure, 105 mm.; pulse, 128; stroke, 13 mm.

At 11.01, 4.66 ounces of blood were removed. Blood pressure, 35 mm.; stroke, 9 mm.

At 11.02, 5.5 drachms of a 0.5 per cent. solution of curare were injected. Blood pressure, 10 mm.; stroke, 10 mm.; artificial respiration.

At 11.14, $^1/_{90}$ grain of strychnine was injected; the blood pressure rose 7 mm.; stroke, 8 mm.

At 11.20, blood pressure, 20 mm.; stroke 9 mm.

At 11.23, blood pressure, 25 mm.; stroke, 6 mm.; pulse, 120.

At 11.26, blood pressure, 60 mm.

At 11.28, blood pressure, 90 mm.; stroke, irregular.

At 11.35, blood pressure, 115 mm.; stroke, irregular.

At 11.43, blood pressure, 100 mm.; stroke, irregular.

At 11.48, blood pressure, 80 mm.; stroke, irregular.

At 11.50, blood pressure, 50 mm.; stroke irregular; pulse, 140.

At 11.53, $^1/_{90}$ grain of strychnine was injected. The blood pressure in the meantime had fallen to 35 mm., and remained constant.

At 11.55, the paw was burned. No change occurred in the blood pressure.

At 12.02, the infusion of 15 ounces of normal saline solution was begun.

At 12.12, infusion completed. Blood pressure rose gradually to the normal to 110 mm.: stroke, 21 mm.

At 12.15, blood pressure, 50 mm.; stroke, 15 mm.

At 12.20, blood pressure, 40 mm.; stroke, 11 mm.; pulse, 80. The blood pressure gradually fell to 30 mm.; $^1/_{90}$ grain strychnine produced no change.

SOME UNUSUAL FORMS OF ACUTE MYELITIS.

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In this era of bacteriological research it may seem somewhat hazardous to recur to old time subjects, but the question of the occurrence of acute myelitis independently of trauma, of specific infection, and of other infectious diseases, is one that is still of very great interest. Much confusion has arisen because of the desire on the part of some to apply the term myelitis in its strict pathological sense. Medical purists will be fully justified if they maintain that the term should be restricted to those disease processes that show some tangible sign of inflammation of the spinal cord substance, and, if there were some other term convenient at hand which could be substituted for the word myelitis, the purists would have things their own way. I can see no harm in giving a more liberal interpretation to this term, for in many instances we have had to depart somewhat from the definition of inflammation that has been in vogue since the days of Cohnheim. For our present purpose, at any rate, let us understand by the term acute myelitis a disease process causing a more or less rapid or a more or less complete destruction of the substance of the spinal cord at any given level, excluding, however, those forms which are due to large hæmorrhages and to the breaking down of neoplasms. One might speak, in some instances, of myelomalacia or myelonecrosis, but I cannot plead for the general substitution of these terms.

I have been moved to make these few remarks because the first case upon which I wish to report was one in which, from the clinician's point of view, there was every reason to make the diagnosis of an acute transverse myelitis, and yet the autopsy failed to reveal the first sign of any inflammatory process. My special object in referring to this case is to draw an analogy between the cerebral and spinal vascular accidents of the senile period. We have been hampered for many years in our interpretation of brain and spinal cord disease by purely anatomical and regional considerations. It is curious that, in spite of the delicate structure of the spinal cord, and of its bloodvessels, which is even less favorable than that of the cortex of the brain, the vascular accidents in the brain which befall so many persons in advanced years so rarely bring about disease of the spinal medulla. We can understand why embolism should be less frequent than in the cerebral bloodvessels, and even hæmorrhage is to be expected less frequently, for the effect of increased blood pressure on spinal vessels is not as great as in the case of the branches of the middle cerebral artery; but there is no reason why thrombosis should not occur in the case of spinal bloodvessels, unless we are to assume that arteriosclerosis and the attendant changes are less common in the bloodvessels of the spinal cord than in those of the brain. The spinal cord of the first patient showed such arteriosclerotic changes, and the affection from which the patient died cannot be interpreted otherwise than a general degeneration of the substance of the spinal cord due to the affected blood supply. It will be well, however, to give the salient features, and those only, of the first case, in order to bring out the relative suddenness of onset of the disease and the reason why it was at first suspected that there was nothing but an ordinary acute transverse myelitis or possibly a hæmorrhage into the cord:

Professor P., aged sixty-four years, a patient of Dr. Wyeth and Dr. Raickstraw, was seen by me in consultation May 5, 1903. He had been well, with the exception of much prostatic trouble, for which a prostatectomy had been done by Dr. Wyeth several months previously. Three weeks prior to May 5th he had been in his home in the South, and, as he stated, "had never felt better in his life." On his return to New York, about one week before my first examination, he was very busy one day driving about a great deal in his endeavor to collect friends for a dinner, and, to quote his words, "I was in a rush generally." Driving about, he appreciated the fact that there was considerable jolting while in the cab. He stumbled a few times, but paid no attention to it. On the following day, during the act of micturition, he noticed that his knees gave way and he fell down to the floor and had to be raised from it. Since that time he has not been able to move his legs and has lost the power of emptying the bladder. There had been a slight overflow at times. There was no history of distinct traumatism other than that implied in the jolting of the cab. He had not been subjected to any drenching and could not account in any way for his sudden disability.

He was entirely clear in mind; speech, pupillary reflexes, and all ocular movements were entirely normal. The lower extremities were absolutely paralyzed, the toes pointing downward even in the recumbent position. The only movements noticed were involuntary contractions of both lower extremities following upon the slightest sensory stimulation. A careful examination of sensation showed that touch sense was lost below the knees. Above the knees, touch sense was preserved on both sides, but the pain sense and temperature sense were lost in both lower extremities and extended upward as far as the umbilicus. The knee jerks were lost; Achilles reflexes also; there was no Babinski phenomenon, and the plantar reflexes were considerably exaggerated. The

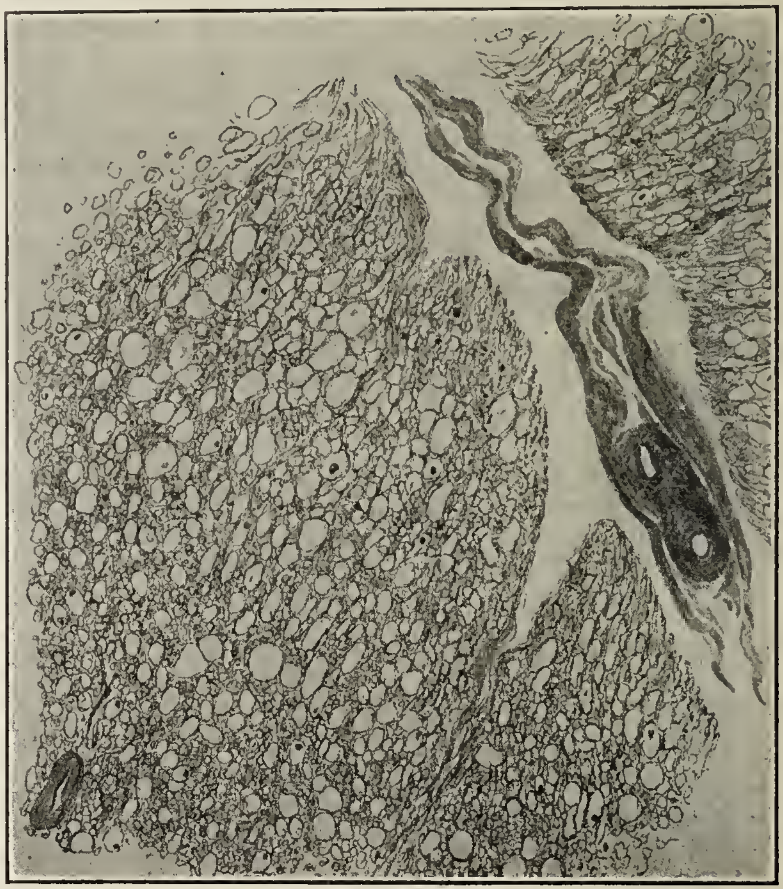

FIG. 1.

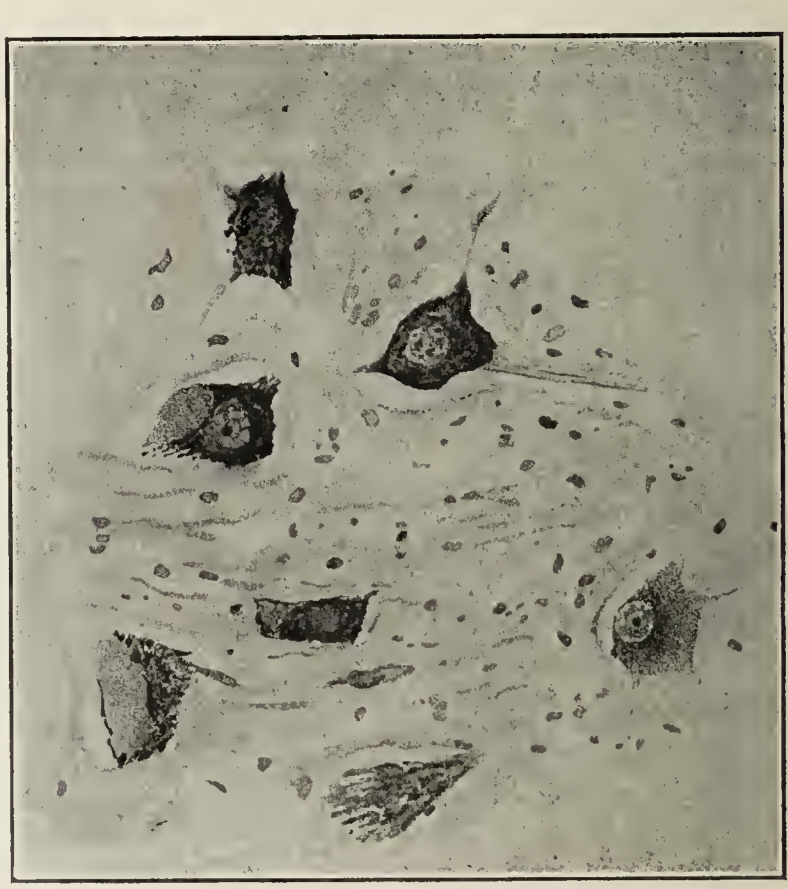

FIG. 2.

abdominal and scrotal reflexes were slightly present. The electrical examination could not be made at this time, but was hardly needed for diagnostic purposes.

The unusual feature of the case appeared to be the dissociation of sensation above the knees, and, thinking that this might possibly be due to central hæmorrhage, I was inclined to think the prognosis, as on my record, a little better than in ordinary transverse myelitis. Two days later, on May 7th, the patient suddenly developed symptoms of intense dyspnœa, and while remaining entirely conscious to the end, died within half an hour after the onset of these symptoms and before I could respond to the summons which had come to my house.

The autopsy was performed thirty hours after death by Dr. Raickstraw, and had, of necessity, to be limited to a removal of the spinal cord, as the family would not consent to a complete autopsy. The entire gray matter in the lumbar region looked pinkish, but arsenic had been injected into the body. There was no other macroscopic change. Above all things particularly noticed was that the gray matter in the dorsal and cervical regions appeared entirely normal, and the substance of the spinal cord was not diffluent at any level. Parts of the spinal cord from every level were submitted to me for examination, and sections from almost every level of the cord were carefully prepared for me by Dr. I. Strauss, to whom I am indebted for a painstaking preparation of these sections. Sections were stained particularly according to the Marchi and Van Gieson methods. The bloodvessels of the cord appeared much distended, but nowhere were there any of the usual signs of active inflammation, nor was there any systemic degeneration, except that in the upper dorsal and cervical region there was a distinct, probably secondary, degeneration of the posterior columns of the cerebellar tracts and of the anterolateral tracts of Gowers. The Marchi method revealed, particularly in the dorsal and cervical regions, a degeneration of all the white fibres on the circumference of the cord extending partly into the posterior columns, where it was difficult to differentiate between this degeneration of the circumference and the ascending degeneration due to the lesion in the lower part of the cord. There was not a single sign of central hæmorrhage, nor even of punctate hæmorrhages in any part of the gray or white matter. The chief changes found were in that part of the cord embraced between the eighth dorsal and third lumbar segments. Examination of sections from all of these parts presented about the same appearance, and included a distinct degeneration of the cells in the gray matter, as shown in the annexed Fig. 1, and a destruction of the white fibres on the whole cross section of the cord, without any special reference to the well known tracts. It will be seen from Fig. 2 that the nerve fibres are distinctly altered, but only a few of them show any distinct axis cylinders. In the majority of instances homogeneous masses indicate the presence of the white fibres; bloodvessels on the cross section of the cord are hypertrophied; many of them are occluded. In many instances the larger vessels entering the cord are completely blocked with blood, and the clots are partly organized, but there is no sign anywhere of any active inflammatory process. Of the bloodvessels of the pia it may be said that they exhibit a general thickening of the walls, particularly of the intima, and the changes are such as might be attributed to a general arteriosclerosis and are entirely distinct from such changes as we observe with specific endarteritis.

This case admits of no other interpretation than those of an ischæmic necrosis due to a general arteriosclerosis. The entire absence of inflammatory conditions would seem to put the case into a different category from the ordinary acute transverse myelitis, as it occurs in younger individuals. The partial dissociated sensation which occurred, which was so pronounced a symptom of the condition, and which ordinarily points to change in the central gray matter and, as a rule, to hæmorrhage in this region or to cavity formation, was evidently due to the death of the nerve fibres in the posterior columns adjoining the central gray matter and to the involvement of part of this gray matter itself. The extension of the process upward and the involvement of the cervical portion of the cord must be held responsible for the decay due to respiratory paralysis. We have been accustomed to extend the term cerebral apoplexy to all of the vascular accidents occurring in the brain during the senile period, and do not restrict it merely to cases of cerebral hæmorrhage. One is strongly tempted, therefore, to speak of a case such as the present one as one of spinal apoplexy, even though every sign of hæmorrhage is wanting. But spinal apoplexy has at all times been restricted to actual hæmorrhage into the cord, and for that reason the term is not altogether applicable. But the point that I wish to enforce is, that one must infer that one of the conditions which, when it affects the bloodvessels of the brain, gives rise to cerebral apoplexy, has in this instance caused a spinal affection. But the wonder is that such conditions are not met with more frequently, since the blood supply of the posterior half of the spinal cord with its slender posterior and posterolateral bloodvessels, as has been abundantly shown by the researches of Williamson and others, is far less favorable than is the blood supply of the greater part of the brain. These acute spinal paralyses in the senile period, leading to fatal issue, are unquestionably rare, but it is only fair to suspect that many of the lesser and more chronic spastic paraplegias of the same period may be due to the arteriosclerotic changes in the bloodvessels of the cord. At all events, it appears to me that it will be well worth while to examine similar cases most carefully, and to pay more attention than has been the case hitherto to spinal vascular accidents occurring in the adult at the age of fifty years and later.

In marked contrast to the case just related is the second case of a young girl of fifteen who was admitted into Mount Sinai Hospital November 10, 1902. The family history of the patient was negative, and the patient herself had passed through none of the diseases of childhood except measles.

Four days before the patient was admitted into the hospital she had returned one evening from her day's work and had complained of lancinating pains in both sides of the trunk and radiating toward the median line of the abdomen; a feeling of heaviness and numbness in both feet. Five minutes later, according to her story, she became unconscious, but did not fall from the chair. The unconsciousness lasted fifteen minutes, but there were no convulsions. As soon as she regained her senses she noticed that there had been involuntary urination and the power and feeling in the lower extremities were completely gone from the toes upward as far as the groins. As evidence of the loss of sensation, we found marked burning of the skin, from the hot water bottles that had been applied in her home. At the first onset she had not complained of pain or of any paræsthesia, but there was complete retention of urine and constipation. She referred to a constant "dull, boring" sensation in the lower dorsal and upper lumbar spines. There was no girdle sensation and both power and sensation in the arms were entirely normal. At home she had repeated severe chills and high fever. According to the physician's statement temperature varied between 100° and 103° F.

When she was admitted into the hospital the first examination of the urine proved that it was already ammoniacal. The first examination at the hospital also revealed a swelling on the right buttock, and a black necrotic area on the left leg just above the ankle on the inner side; on both great toes and on the small toes were a number of blebs. There was a very large bleb, 5 by 4 inches, on the left heel, and a few blebs on the right foot. There was no atrophy of the lower limbs, but both were absolutely paralyzed. Passive movements could be easily carried out, but caused pains in the vicinity of the lumbar spine. There were retention of urine and involuntary defæcation. The patellar reflexes were absent; there was no Kernig sign, and no Babinski sign.

Electrical examination of the lower extremities showed good response to galvanism, using a strong current, but faradaic response was entirely lost. There was a general impairment of all forms of sensation to within one centimetre of the umbilicus. From the day of admission to November 22nd, a period of twelve days, the patient exhibited temperatures varying between 102° and 105° F. During this time a large, subcutaneous abscess appeared over the left gluteal region, which was incised and drained under the guidance of Dr. Lilienthal, who stated distinctly, however, that there was no connection between the abscess and the vertebral column.

The bacteriological examination of the pus from this abscess showed that it contained streptococci. At the same time, and for weeks following, abscesses appeared over the calves, over the outer surfaces of the thigh, and on various parts of the lower extremities. The patient was removed to the surgical ward and was under continuous treatment for these abscesses for many months. To add to the girl's misfortunes she developed erysipelas in March, 1903, and for a time was transferred to the isolation house, and another similar experience necessitated her removal again in July of this same year. The various abscesses ultimately healed, and, in spite of the development of innumerable complications from these multiple abscesses, and from the cystitis, the girl's general health improved, and in the autumn of 1903 she gradually regained some power over the thigh muscles, being able slightly to pull the legs upward, and was even able, in November and December, 1903, to move the legs so that she could make a few steps when supported under the arms. On January 8, 1904, she was transferred to the Montefiore Home, where I was again permitted to see her some ten days ago.

At the present time her general condition shows marked emaciation, but her power over the legs has not increased; she presents many scars due to the incision of the various abscesses, but there has been a very marked recovery in sensation, so that the anterior and inner aspects of the thigh have regained much of their sensory power. From all present indications the girl will remain more or less paralyzed and more or less anæsthetic in the lower extremities. She will not be likely to regain much power over the vesical reflex, and for the rest of her days will in all probability be either chairridden or bedridden.

While there is no pathological examination in this case to substantiate any theories that may be held regarding it, the case was most unusual because of the remarkable suddenness of the onset, such as we are accustomed to associate with hæmorrhage into the cord. The simultaneous development of the spinal cord affection and of the multiple abscesses would leave very little doubt as to the septic character of the myelitis. At the beginning of the disease there was some hesitancy on my part in the interpretation of the symptoms, for the first large gluteal abscess that appeared suggested the probability of vertebral caries, although the suddenness of the onset, in view of the preceding perfect health militated somewhat against this diagnosis. When the surgeon, however, reported that there was no connection between the abscess of the vertebral column, the idea of caries had to be abandoned, and the rapid appearance of abscesses all over the lower extremities convinced me that there was good reason to regard the myelitis as the expression of a streptococcic infection of the spinal cord. The younger men on the house staff of the hospital would not appreciate my reasons for not consenting to a lumbar puncture, by means of which the septic character of the myelitis would have been proven, but I was not willing to risk the danger of a purulent meningitis as the result of such puncture, and, if I failed to corroborate the suspicions I entertain, there is at least some satisfaction of knowing that the girl escaped with her life and escaped a septic meningomyelitis which would unquestionably have proven rapidly fatal.

Various French observers, notably Charrin, Grancher, Martin, Manfredi et Travers, Widal, and Besançon, have produced foci of degeneration in the spinal cord by the injection of various microbes and of their toxines. Marinesco has obtained very positive results by injecting streptococci and other microbes into the arachnoid cavity.

A number of cases of septic myelitis in man have been reported, but the evidence is not entirely satisfactory. Although the evidence is circumstantial in this instance, I believe there is a strong reason to suppose that this was a case of streptococcic myelitis from which recovery had been at least unusual, but by no means complete. Both cases referred to in this paper are recorded merely for the purpose of insisting that the spinal cord, well protected and exempt as it is from many of the accidents which befall the brain much more frequently, does, at times, become the seat of similar morbid processes and that it will not do to restrict the term of myelitis merely to the morbid process that can be distinctly traced to trauma, syphilis, and to the ordinary acute infectious diseases.

21 East Sixty-fifth Street.

The Medical School of the University of North Carolina opened on September 7th, at Raleigh, with 13 students, the largest number at any opening, and others are expected to arrive daily. Dr. R. H. Lewis made the opening address, The Science of Medicine Against Modern Commercialism in the Profession. Mr. L. B. Newell, of Mecklenburg County, who has been in the department at Chapel Hill, has been chosen assistant demonstrator in pathology. After a practical talk from Dr. H. A. Royster, dean of the department, and the announcement by him of the work for the session a clinic was held at St. Agnes's Hospital.

READY METHODS OF FORMULATING MODIFIED MILK MIXTURES.*

By E. KIRKLAND SHELMERDINE, M. D.,

PHILADELPHIA, PA.

Modified milk mixtures, when intelligently prescribed, have been the salvation of thousands of children's lives. This method is the only known one whereby the relative proportions of proteids, fats, and carbohydrates can be increased or diminished independently of one another. There are two ways of acquiring creams of certain percentages and a fat free milk: The first is by arrangement with a milkman of sufficient intelligence and the necessary apparatus to produce a cream of a standard percentage.

It is necessary for him to have a centrifugal machine and a milk tester. After the cream has been drawn off by centrifugation, the residue of the milk is practically fat free—less than 0.2 per cent. The cream varies in percentage and must be standardized. A 20 per cent. cream makes the best working basis. After the cream is procured by centrifugation, it should be tested by Babcock's method and the percentage of fat estimated. If, for example, the cream tested 50 per cent. fat, by diluting the cream one and one half times by volume with fat free milk, it would give a cream of 20 per cent.

Rule: The fat percentage of the centrifugated cream divided by 20 per cent. (standard working cream) gives plus one more dilution than is necessary.

Examples: Centrifugal cream—60 per cent. fat: 60 per cent. ÷ 20 per cent. = 3 : 3 — 1 = 2 dilutions. Twenty quarts of 60 per cent. cream, diluted twice by volume of fat free milk, gives 20 per cent. cream.

Centrifugal cream—48 per cent. fat: 48 per cent. ÷ 20 per cent. = 2.4 : 2.4 — 1 = 1.4 dilutions. Twenty quarts of 48 per cent. cream diluted 1.4 times with fat free milk gives a cream of 20 per cent.: 20 quarts × 1.4 = 28 quarts. Adding 28 quarts of fat free milk to 20 quarts of 48 per cent. cream gives 48 quarts of 20 per cent. cream.

Centrifugal cream—54 per cent.: 54 per cent. ÷ 20 per cent. = 2.7 : 2.7 — 1 = 1.7 dilutions. Thirty quarts × 1.7 = 51 quarts. By adding 51 quarts of fat free milk to 30 quarts of 54 per cent. cream gives 81 quarts of 20 per cent. cream.

The requisite amounts of cream and fat free milk are taken from the milkman, measured in a graduate by the mother or nurse, pasteurized if necessary, and sufficient boiled water, lime water, and milk sugar added, according to the directions of the attending physician.

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* Read before the Philadelphia County Medical Society.

This ideal way is not practicable in all places; there might not be enough cooperation among the physicians to create a sufficient demand to warrant a milk firm producing a fat free milk and a standard cream.

The second way is for the mother to procure a cream of a known percentage from ordinary milk.

A series of milk tests which I have made, extending over a period of three months, has demonstrated the following facts:

(1) After milk stands a certain time, and most of the fat has risen to the top, the cream layer decreases in volume but increases in fat percentage, this being due to the gravitation of the particles of milk which have been carried up by the fat droplets.

(2) The percentage of fat in the cream layer of milk (of the same age and kept at the same temperature) of different richnesses, is relatively the same. The richer the milk, the proportionately greater is the volume of the cream; and, conversely, the poorer the milk, the smaller by volume is the superimposed cream; but the percentage of fat above the line of demarcation between cream and milk is the same in rich and poor milks which have stood the same length of time and under the same conditions of temperature, etc.

(3) Milk which is bottled in the evening (as is the custom among the large dealers of Philadelphia), if allowed to remain for six hours on ice after delivery in the morning, will give an average percentage for the cream (above the line of demarcation between the milk and cream) of 13.33 per cent.

(4) The lower one quarter of the milk will give a fat percentage of less than 1 per cent., and for all practical purposes can be considered fat free. When diluted to make the modified milk mixtures, the attenuation of the fat is so great that it influences the fat percentage of the mixture to an infinitesimal percentage.

After the milk has been allowed to stand for from six to seven hours, it is siphoned off in the following manner: A handle of a knife or some small object is inserted under one side of the jar so as to tilt it, bringing the lowest centre of gravity to one side. A very good siphon is made by taking a straight medicine feeding tube and attaching a small calibre rubber tube (twice as long) to one end; in addition an eight ounce graduate is necessary. The rubber tube is compressed close to the junction with the glass tube, so as to prevent any ingress of cream or milk until the bottom of the milk jar is reached by the free end of the glass tube. The tube is gently inserted until the free end is at the lowest point of the jar, *i. e.*, the lower tilted side; the compression of the rubber is released and the milk allowed to enter the tube. The graduate is placed at a lower level than the jar, suction is made on the end of the rubber tube, and the first teaspoonful is allowed to escape; then the lower one quarter of the milk in the bottle is run into the eight ounce graduate. Then the rest of the milk is siphoned off until the lower cream level is at the bottom of the jar and no more of the lower white milk can be seen. The fluid is then carefully allowed to run until the yellow color of the cream shows coming out of the end of the tube, when the flow is stopped, the tube elevated, and its contents allowed to run back into the jar.

The cream remaining in the jar averages 13.33 per cent. of fat. The milk in the graduate, which was drawn first, is fat free milk (practically). The middle part of the quart is not used. It is unnecessary to add that, before and after using, the graduate and siphon should be thoroughly scalded, and that the greatest care should be taken to have all the utensils absolutely sterile.

Ready Methods: Modified milk mixtures have been a thing of mystery to members of the profession at large; while to a certain extent they subscribe to its usefulness in the hands of the specialist, yet from its extreme complexity and the innumerable tables of calculation, they have not taken the time to memorize a table of percentages and proportions. Also, when in a patient's house, they have not cared to take a table out of their pockets and scrutinize it for the purpose of telling the mother how much cream, fat free milk, and milk sugar are necessary to make a mixture suitable for the child. They have as much hesitancy as in resorting to a printed book of prescriptions and copying a cough mixture.

In the following calculations any man, who can multiply and subtract, can estimate in a minute the amount of cream, fat free milk, and milk sugar necessary to make any desired percentages. The following calculations are for 20 ounce mixtures; if a greater or less amount is needed, increase or decrease proportionately:

Fat: Using Cream Containing 20 Per Cent. Fat. —Rule: Percentage of fat prescribed (used as a whole number) represents the number of ounces of 20 per cent. cream to be added to a 20 ounce mixture, in order to obtain a prescribed percentage of fat in the mixture.

Example: If 2 per cent. fat is prescribed, 2 ounces of 20 per cent. cream are added to the 20 ounce mixture; if 3 per cent. fat is prescribed, 3 ounces of 20 per cent. cream are taken; if 1 per cent. fat is prescribed, 1 ounce of 20 per cent. cream is taken, etc.

Using Cream Containing 13.33 Per Cent. Fat.—Rule: Percentage of fat prescribed (used as a whole number) represents two thirds of the number of ounces of 13.33 per cent. cream to be added to a 20 ounce mixture, in order to obtain a prescribed percentage of fat in the mixture.

Therefore the number representing the percentage of fat prescribed (used as a whole number), increased by one half, gives the number of ounces of 13.33 per cent. cream to be used in the 20 ounce mixture.

Example: If a 2 per cent. fat is prescribed, 3 ounces of 13.33 per cent. cream are added to the mixture; if 3 per cent. fat is prescribed, 4½ ounces of 13.33 per cent. cream are taken; if 1 per cent. fat is prescribed, 1½ ounces of 13.33 per cent. are taken, etc.

Using a 10 per cent. cream, twice the percentage of fat prescribed, used as a whole number, represents the number of ounces to be used.

The number of ounces of cream can be calculated instantly: if a 20 per cent. cream is used, take as many ounces and fractions of ounces as there are units and fractions of units in the prescribed percentage; 13.33 per cent. cream, increase by one half; and 10 per cent. cream, double.

Proteids.—To calculate the number of ounces of fat free milk to be taken in addition to the cream, in order to give a prescribed percentage of proteids is equally simple, only more figuring is required.

For every 5.71 ounces of milk (cream and fat free milk) diluted to 20 ounces, the percentage of proteids in the 20 ounce mixture is increased 1 per cent. The percentage of proteids prescribed is to 1 per cent. as 5.71 is to the number of ounces of milk necessary to make a prescribed percentage of proteids in the 20 ounce mixture.

Rule: Multiplying 5.71 by the percentage of proteids prescribed (used as a whole number) gives the number of ounces of milk to be added to the 20 ounce mixture, in order to give a prescribed percentage of proteids. The number of ounces of cream already added is subtracted from this result and the remainder is the number of ounces of fat free milk necessary to bring the mixture up to the prescribed proteid percentage.

Example: We wish to prescribe 2 per cent. fat and 0.5 per cent. proteids. $5.71 \times 0.5 = 2.85$ ounces of milk to be added to the 20 ounce mixture. The 2 per cent. fat required 2 ounces of 20 per cent. cream, $2.85 - 2 = .85$ ounce of fat free milk to be added, in addition to the 2 ounces of cream, to bring the proteid percentage up to 0.5 per cent. Adding 2 ounces of 20 per cent. cream to ¾ ounce (approximate) of fat free milk and diluting to 20 ounces, gives 2 per cent. fat and 0.5 per cent. proteids in a 20 ounce mixture.

Note: While the proteid percentage is not as high in the cream as in the fat free milk, yet the difference is so slight that the ultimate result answers all practical purposes.

Sugar.—To calculate the amount of milk sugar to be added to a 20 ounce mixture to bring the percentage of sugar to the prescribed percentage.

Rule: Multiply the sum of the cream and milk used for the fat and proteid percentage by .2; subtract the product from the percentage of sugar prescribed; multiply the remainder by .2. The result represents in ounces the amount of milk sugar to be added to make a prescribed percentage of sugar in a 20 ounce mixture. Reduce to drachms.

Note: This rule is calculated on a 4 per cent. basis of sugar in cow's milk; if the sugar is higher, even as high as 5 or 5.5 per cent., it will make very little difference in practical results, as only a small percentage of the sugar in the 20 ounce mixture is derived from the added cream and milk, but comes mainly from the added milk sugar.

Diagrammatically the calculations can be expressed as follows:

Fat.—Cream, 20 per cent., = in ounces the percentage prescribed. Cream, 13.33 per cent., = in ounces 1½ times the percentage prescribed. Cream, 10 per cent., = in ounces double the percentage prescribed.

Proteids.—

5.71 multipled by per cent. of prescribed proteids, expressed as units, gives:
Ounces of milk necessary to make a prescribed proteid percentage.
Minus ounces of cream already added, gives:
Ounces of fat free milk to be added.

Sugar.—
Number of ounces of cream and fat free milk used.
Multiplied by 0.2, gives:
Result 1 = percentage of sugar in the 20 ounce mixture from the added cream and fat free milk.

Percentage of sugar prescribed.
Minus result 1, gives:
Result 2 = percentage of sugar necessary to bring the 20 ounce mixture up to the prescribed percentage.
Multiplied by 0.2, gives:
Ounces of milk sugar necessary to bring the

sugar in the 20 ounce mixture up to the prescribed percentage. Reduce to drachms.

A few minutes spent in going over the following example will explain more thoroughly than words can. With my system it is not necessary to carry a table; when a physician understands the system, he can figure it out in a minute on the back of a prescription blank, and write down for the mother the relative amounts of cream, fat free milk, sugar, lime water, and boiled or sterile water sufficient to make 20 ounces of the different percentages he wishes to prescribe. In intelligently using modified milk mixtures, the physician will not only achieve much more brilliant results than is possible under a starch soaking process, in which the other ingredients are all out of proportion and the percentages are not what nature intended a nursing child to have. The physician, who scientifically cares for his infant patients, will not only have better results, but he will also have the reputation in his community, and Soakum's Baby Food will not be placed on a pedestal in his patient's house a crying advertisement of the lack of skill in the attending doctor.

Example: Fat, 2 per cent.; proteids, 0.75 per cent.; sugar, 5 per cent. Cream, 20 per cent., requires 2 ounces; or cream, 13.33 per cent., requires 3 ounces.

Proteids.—

5.71 ounces, when diluted to 20 ounces, = 1 per cent. proteids.
.75 prescribed proteid percentage.

4.2825 ounces of milk necessary to make 0.75 per cent. proteids in 20 ounce mixture.
2.00 ounces of 20 per cent. cream added.

2.28 ounces of fat free milk to be added in addition to 2 ounces of 20 per cent. cream.

Or using 13.33 per cent. cream.

4.28
3.00

1.28 ounces fat free milk to be added in addition to 3 ounces of 13.33 per cent. cream.

Sugar.—

4.28 ounces of milk diluted to 20 ounces to make prescribed fat and proteid per cent.
.2

.856 per cent. of sugar in 20 ounce mixture containing 4.28 ounces of milk.

5.00 per cent. (prescribed sugar).
.856 per cent. of sugar in 4.28 ounces of milk diluted to 20 ounces.

4.144 per cent. of sugar necessary to bring the 20 ounce mixture up to 5 per cent.
.2

.8288 ounces of milk sugar to be added to make prescribed per cent. (5 per cent.).
.8

6.6304 drachms.

One drachm of milk sugar equals a heaping teaspoonful, the sugar to be poured from one spoon to another, so that it is not packed tightly.

The physician writes either of the following directions for the mother, according to how the milk is procured:

If the 20 per cent. cream and fat free milk are procured from the milkman:

Cream, 2 ounces.

Milk, 2¼ ounces.

Lime water, 1 ounce.

Boiled water, 14¾ ounces (enough to make 20 ounces).

Milk sugar, 6¾ heaping teaspoonfuls.

If the mother prepares the cream and fat free milk from ordinary milk, the physician should, the first time, show the mother how to siphon the milk, and explain to her that it should be left on the ice and not disturbed from six to seven hours.

Cream, 3 ounces.

Milk from lower 8 ounces of quart or 4 ounces of pint, 1¼ ounces.

Lime water, 1 ounce.

Boiled water (enough to make 20 ounces), 14¾ ounces.

Milk sugar, 6¾ heaping teaspoonfuls.

The keys to the system are the numbers 5.71 and 0.2; these two numbers carried in the head, and the knowledge of how to use them, are all that is necessary in estimating a modified milk mixture; 5.71 for the proteids and 0.2 for the sugar.

The character of the stools and the progress of the child will be indications of which constituents of the milk need to be increased or diminished; under this system they can be regulated at will. The more a man works with modified milk mixtures, the more quickly will he learn where an increase or decrease is necessary. After a few months he will appreciate—as do those who have had experience with this manner of feeding—that modified milk mixtures give the most satisfactory and permanent results. "As the twig is bent, so the tree inclineth;" the regulation of the dawn of existence determines the health of after adult life. Patent baby foods are sometimes justifiable as a temporary expedient, but as a steady diet they are harmful and their baneful influences are more and more appreciated as time passes.

THE PRESENT CONDITION OF TENONTOPLASTY.

By PROFESSOR VULPIUS, M. D.,

HEIDELBERG, GERMANY.

(*Continued from page 538.*)

If we transplant an absolutely healthy muscle into a paralyzed tendon, the muscle of which functionally stands very near the power supplying muscle, it is easily understandable that the power-giving muscle will now take up the lost function. Take the following example: The tibialis anticus is paralyzed, the extensor hallucis longus fully preserved. We transplant the latter and get back at once the lost action of the tibialis. For the extensor hallucis, under normal conditions, is such a synergist of the tibialis that it is almost difficult to raise the foot without simultaneously stretching the big toe. It is this simplicity of the physiological conditions which makes the total transplantation appear as the best, under the supposition that the function, or at least the independent function, of the power-giver can be missed. In the example quoted we cannot do entirely without the function of the extensor hallucis; we therefore have to prevent the very awkward contraction of the big toe, to take care of the peripheral stump by attaching it in an ascending manner, maybe to the extensor digitorum. It is more difficult to understand the physiological proceeding, when we execute the total transplantation of an antagonist. Why do we transplant into a flexor when we desire extension? Different explanations have been given. Every motion produces a centripetal stimulus, which is conducted to the brain over the paths of muscular sensation. If the kind of motion is changed in consequence of the exchange of tendons, the stimulus is also changed and the central nervous system adapts itself gradually to the newly created anatomical conditions in the periphery. The observations which we have made in grown-up persons who have been treated by transplantation, testify to such a gradual development of adaptation. The sense of motion, the picture of motion, is here at first uncertain; the patient feels a flexion while he executes an extension. Quite gradually this sensation is regulated and at the same time the movements gain in security. Or we have to take up the question of action of the antagonist to get at an explanation, a question, about which there is not yet any concord of opinion among physiologists. The opinion originated by Galen is that one muscle flexes, its antagonist extends. This teaching held good until Duchenne's time, who postulated a mutual action of all muscles. Only through a fine graduation of intensity of power of the different groups of muscles is the desired motion arrived at. This is a supposition which is well borne out by clinical observations in the healthy and the sick, and which may very well explain the occurrences noticed in transplantations. The brain wishes to execute an extension, but the extensor is paralyzed and we now get, through the additional work of the antagonist, a slight flexion. We now transplant the antagonist into the extensor, the innervation of the antagonist now no longer produces a flexion as before, but an extension, although with proportionately little energy. The newly created motion transmits a new, so to say surprising, impulse to the brain, and now the brain adapts itself to the new condition, as explained before, until finally the flexor is innervated, so to speak consciously, in order to extend. Yet still more complicated we find the conditions, where a division of function, a splitting of a tendon, as of a muscle body, has been done. It has been proved by many experiments that both muscle halves can enter upon separate, independent action. To explain this, Moritz accepts the following: A muscle is supplied by quite a number of ganglion cells, which will not absolutely always have to work together. If the impulse of innervation occasionally comes only from the ganglion cells which belong to the split off muscle part, only this contracts, and we arrive at a first independent movement of this muscle slip; a new, unaccustomed, centripetal impulse is produced and the centre adapts itself gradually in such a fashion that it divides itself into independent centres, which correspond to the two muscle halves.

Until now we have only spoken about and tried to explain transplantations in flaccid paralyses. The result consists in the disappearance of the deformity and the return of normal active movements, although not to their normal extent, yet in their normal direction. To this result is added, in spastic paralyses, an additional success, the disappearance of the cramplike condition. This fact may, perhaps, be explained by the fact that through the elongation of the spastic muscles, which is generally combined with the operation, the traction at the point of insertion is diminished, and with it the centripetal impulse lessened or abolished, and that with the loss of this impulse a calming of the centre is produced.

We have so far spoken of the success, but we must not conceal the fact that failure may also happen. It may, on the one hand, be produced by infection, which may completely destroy the result, but not necessarily. Further, the tendon sutures may tear out; and, lastly, we can transplant too much or too little. Such an uncertainty about the extensiveness of our operation may especially take place in spastic paralysis, because the spasm disappears under narcosis, and with its disappearance we lose judgment about the division and the degree of the surplus innervation. Generally, we have to correct by a second operation the mistakes made.

We now come to a more detailed enumeration of the indications, and we shall occupy ourselves first with cases of peripheral paralyses. These lend themselves naturally especially to transplantation, because they represent cases of circumscribed paralyses, in which the neighboring muscles generally are quite sound. These peripheral cases of paralysis may be occasioned by a traumatic loss in a tendon. In presence of such a condition, we may well look to closing the defect by an artificial lengthening of the tendon, or by the insertion of an artificial tendon. However, this proceeding only has a prospect of success when the traumatism does not date too far back, so that the muscle still is in a useful condition; and further only when the healing process of the primary injury has not been complicated by severe pus formation, so that when between the two tendon stumps somewhat normal tissue is found; otherwise there could be no possibility of free mobility of the young tendon, which would be imbedded in scar tissue. The first transplantations have probably been carried out from this indication. We already possess the knowledge of quite a number of such operations, as well in the lower as at the upper extremities, which have yielded excellent results. The peripheral paralysis can be produced by the loss of nerves. In case a nerve trunk should be cut entirely, it is naturally absolutely necessary to undertake the primary suture of the same. In case of failure, or in case the suture has been neglected, a secondary suture may well be tried; the latter, however, has the less chance of success the greater the time that has elapsed since the injury, as well as on account of the degenerative processes in the central nerve stump, and also on account of the progressed atrophy of the muscle concerned.

In case of a strong contraction of the nerve stumps, or in case we have to deal with a loss of a piece of nerve, so that a direct suture is excluded, we might attempt nerve plastics or nerve grafting. The first can be tried, either by elongation of the nerve stump by means of a plastic splitting off of a slip of nerve, which might be turned up, or by inserting dead material into the gap.

Nerve grafting consists in bringing the peripheral nerve end into contact with a neighboring healthy nerve, imbedding the first into a shallow slit of the latter. Both proceedings are occasionally followed by success. They are, however, on the whole to be regarded as very uncertain, and in old cases to be considered as without prospect from the first, on account of the condition of the muscles. In such a case the transplantation of a tendon as a resource seems the more preferable, since tendon suture is more reliable than nerve suture.

After a degeneration of a peripheral nerve trunk through pressure, inflammation, or the like, the conditions are quite analogous to the irreparable loss in the continuity of a nerve trunk. Here, also, tendon transplantation is the operation of choice, as soon as a reparation of the nerve conduction is excluded once for all. In quite a considerable number of cases the before named affections of the peripheral nerves have given reason for transplantation, as well at the lower as at the upper extremity. At the lower extremity it is especially the paralysis of the nervus peroneus, which comes under treatment and observation comparatively frequently, on account of its superficial position. In case the whole trunk of the peroneus is lost, we must cover the compensation by the frontal and external group of muscles from the side of the flexors. For this object we have at our command the flexor of the toes and a part of the tendo Achillis. We can transplant the first two through the interosseum into the tibialis anticus and extensor digitorum, and bring into contact a lateral third of the tendo Achillis with one of the peronei.

The proposition of Deutschlander is hardly practical. It consists in the ascending transplantation of the completely severed frontal muscles, which are crossed across the ankle joint to the side of flexion, because the paralysis of the peroneal muscle is fully neglected. In the upper extremity the radial nerve is the most exposed, and it is frequently implicated, especially in fractures. In half a dozen cases the cure of the paralysis of the radial nerve has succeeded by transplantation in almost an ideal way. As a typical proceeding Franke has recommended: first, the shortening of the extensor carpi radialis, to insure a slight dorsal flexion of the hand, because by it the closure of the fist becomes materially less difficult, and, scondly, the transplantation of the flexor carpi ulnaris into the extensor digitorum.

In the spinal cases of paralysis we have to speak, in the first place, of the flaccid paralyses following in the wake of poliomyelitis, which present an extremely frequent and suitable object for transplantation. Here, we have to deal with a typically circumscribed affection, hence, with a circumscribed loss of function, such that healthy muscles are placed next to a single paralyzed muscle. To be sure, I might say such a typical finding is not quite the rule, but we have frequently to do with several highly paralyzed muscles. We then find, next to completely paralyzed muscles, degenerated muscle bodies, which are permeated with fat and which are distinguished by their yellowish white color; others which are only weakened, paretic, or atrophied by inactivity, recognizable by the changeable intense pink coloration, and lastly, we notice so-called "tigered" muscles, in which single fibres are normal, others are colored pink, while again others are completely degenerated. These diverse affections within a single muscle body arise from the fact that its different parts are supplied from different parts of the nervous system. The place of operation which offers the greatest advantage, and therefore is oftenest selected for transplantation, is the leg. On it we find a muscular arrangement which is especially adapted to transplantation. We have to deal with three groups of muscles; the frontal, the external, and the posterior. Every group consists of several individuals. There is, therefore, also possible an exchange of tendon and muscle parts within a single group of muscles, as from one group to another. Further, there also exists between the single muscles of the leg a suitable kinship of function, which is best understood by the definition of the muscle function of the leg given by Duchenne: The tibialis anticus is an elevator of the foot and an adductor; the extensor hallucis helps it in these functions; the extensor digitorum is an elevator of the foot and an abductor; the peronei are depressors of the foot and abductors; the tibialis posticus is an adductor; the calf muscle is a depressor of the foot and an adductor; the deep flexors share to a slight degree the action of depression of the foot. This scheme without further difficulty explains the kinship of function, and with it a direction to the most rational transplantation. In a somewhat different way Lange explains his plans of operation on the leg as follows: In the main we have to deal with the restoration of four functions: Lifting, depression of the point of the foot, adduction, and abduction of the foot. The plantar flexor has to act on the heel, the dorsal flexor at the point of insertion of the tibialis anticus and of the peroneus tertius; the supinator at the point of insertion of the tibialis posticus, the pronator at that of the peroneus brevis. We have to remember that Lange, as before explained, employs the periosteal method of transplantation; that is, inserts the power-giving tendon, and if possible in its entirety, into the named points of the skeleton, by means of an additional silk tendon, so far as this is necessary. We have at our disposition for transplantation in the first place, because their independent function can be spared, the extensor hallucis, one of the two peronei, the flexor digitorum, and the flexor hallucis. Thus, these muscles are each united directly or indirectly to one of the bony points named. Such an operation scheme, though, is in reality rarely applicable, for reasons before mentioned, since in the paralysis of single muscles the above named muscles of compensation are not always found in a useful condition. Pretty frequently, therefore, we have to make use of tendon splitting, instead of total transplantation. The different paralytic deformities of the foot are, as stated before, rather frequently the subject of the transplantation therapy; especially frequently, however, the paralytic clubfoot, which I have had occasion to treat personally in more than 150 cases. After an extensive correction of the deformity, we have to effect a strengthening of the extensor digitorum and of the peroneal muscles, to which end we can use the extensor hallucis, the flexor of the toes, or else a part of the tibialis anticus, and a slip of the tendo Achillis. Schanz, and before him Eve, made the proposition not to correct fully at the beginning, but to leave the equinus, so that the forepart of the foot might be unrolled better with the aid of the tight tendo Achillis. He advises the execution of the tendon transplantation by a still existing equinus, and only in a second sitting, after the termination of the healing of the tendon, the doing fully away with the deformity.

After what we have said before, this proposition is not to be recommended, because through it the preservation of the necessary tension of the tendons is endangered. As soon as the transplantation is finished, the foot has to be fixed in a normal median position, or better, in a slightly overcorrected one. The results on the whole have to be designated as favorable where there is sufficient muscle material on hand. As an average success we well may name an active mobility in normal lines between pronation and supination, but within limited boundaries. The extent of motion especially decreases with the duration of the deformity, because the change of the astragalus generally occasions a certain stiffening of the ankle joint. The lesser the muscle remnants have been the more the hoped for condition resembles the tendinous fixation. In such unfavorable cases the transplantation consists principally in insuring a good position of the corrected foot and in guarding against recurrence. If there are only few remnants of muscles present, the resolution to interfere with the ankle joint, to select arthrodesis as a means of operation, is made easy. The paralytic flat foot also has been operated on frequently; here we have to strengthen the supinatoro of the foot, to make possible again an elevation of the foot into a median position between pronation and supination. Also here we have at our disposition in the first place the extensor of the big toe, which curiously enough often escapes a paralysis, as also the flexor of the toes. The employment of the one peroneus is rational, in case both muscles are present, because the power of abduction is lessened by the displacement of one peroneus toward the tibialis posticus and, at the same time, the power of adduction is increased in the same measure, so that this success is to be estimated as representing the double amount of power of the transplanted muscle. The paralytic equinus can, under some circumstances, be very satisfactory, if it has been produced by the paralysis of a single muscle, especially of the tibialis anticus. It is then sufficient to secure the extensor of the big toe to the tendon of the tibialis, with the necessary amount of tension, to get a complete restoration of function. The most difficult problem in the leg without doubt is offered by the compensation of the powerful calf muscle, the paralytic calcaneus. By an unhappy accident it was just this deformity which Nicoladoni tried to correct by transplantation. It may be due to the fact that this first chosen task has been the most difficult, that the transplantation of tendons, fascinating as the idea may be, even in spite of the example of Nicoladoni, has found only an extremely slow and essentially a later general interest. In order to restore the function of the gastrocnemius, we must, if this is practicable, employ several muscles, the flexors of the toes and one peroneus in the first place. The suture has to take place in a position of equinus. It is frequently advisable to join a shortening of the tendo Achillis to the transplantation, because not rarely there still exist powerful remains of muscle high up in the body of the gastrocnemius, which, however, are atrophied through overstretching, but which recover after restored tension and may yet augment the result.

(*To be continued.*)

Dr. F. W. Dalrymple, a New Rochelle physician and yachtsman, was thrown from his buggy on September 12th in a runaway accident and had his collarbone broken and head badly bruised. The accident occurred at Wildcliff-on-the-Sound, where Dr. Dalrymple's horse shied at a piece of paper and ran into a wagon. The physician and his colored coachman were thrown out and dragged several hundred feet. Dr. Dalrymple was taken to a sanitarium at Stamford, suffering from nervous shock.

SOME CAUSES OF MENSTRUAL DISORDERS IN THE GIRL.*

By R. S. HILL, M. D.,
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At the last meeting of the Alabama State Medical Association an important report was made by Dr. Wilkerson, of Montevallo, Ala., on the condition of the students at one of the leading female colleges in our State. It was my privilege to take part in the discussion of that interesting contribution, and at the request of some of my friends I have since committed the substance of my remarks to writing. As they have not appeared in print and as the importance of the subject warrants my bringing it to your attention, I decided, on receiving your invitation, that I could not do better than reproduce here what I had to say on that occasion.

Every man views every subject from his individual standpoint; therefore, as one who has devoted the larger part of his time to the study of the diseases peculiar to women, it is natural that I should look at the interesting, able, and important report read by Dr. Wilkerson from the viewpoint of a gynæcologist. It is fair to assume that the girls in attendance at the school where the doctor made his observations represent in physical development the average girl in, at least, this section of the country. And when we are reliably informed, as we have been to-day, that from 75 per cent. to 90 per cent. of them have some menstrual disturbance, we cannot fail to be awakened to a full realization of the responsibility that rests with us as the guardians of the health and, to this extent, the happiness of our people. This responsibility is by no means relieved when our efforts are confined to the treatment of those who are already sufferers. I repeat that when from 75 per cent. to 90 per cent. of the girls entering young womanhood manifest an incapacity properly to discharge the functions peculiar to their sex—functions upon the normality of which the propagation of the race depends, and the preservation of individual health and happiness largely rests—we should not content ourselves with the application of curative agents; our obligation as physicians demands more of us. It demands that we investigate the cause or causes of this deplorable condition and root out the evil that is sapping the vital force of so many of our girls. When we have done this, and not until then, we may have a consciousness of duty fully discharged, and there will be cause for fewer such lamentations as that of the Hebrew prophet, "Is there no balm in Gilead? Is there no physician there? Why, then, is the health of the daughter of my people not recovered?" I say, there will be less cause for such lamentations, for we shall have met our obligation, and thereby prevented the destruction of the health of many of the daughters of our people.

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* Presented to the Chattanooga, Tenn., Medical Association.

To consider our subject properly from the viewpoint of the gynæcologist, or in its relation to the functions of the sexual organs, we should turn our attention, first, to any factors existing before birth (antenatal) that may contribute to an ill development, anatomical or physiological, of these organs; and secondly, to any after birth (postnatal) factors that tend to retard or interfere with their anatomical or physiological growth. While the former are, in my opinion, solely predisposing in effect, the latter, or postnatal, may be active or predisposing.

The study of the antenatal factors embraces the study of the laws of heredity. A full investigation of these laws necessitates retracing, step by step, the "footprints in the sands of time" that tell of the evolution of man from the lower forms of life. The time at my disposal not only does not warrant an undertaking of so great magnitude, but makes it necessary that I speak briefly, even though it compromises clearness to some degree or gives a show of unseemly dogmatism to the expression of my views.

I have no fear of a controversy with those who embrace the theory of the ascent of the higher from the lower forms of life when I assert, all things else being equal, that the organs or cells of the body which are the oldest biologically, by which I mean have been known longest to living matter, and are the most active physiologically, have the greatest power of contributing to the primary cell—ovum or spermatozooid—hereditary influences, and of thereby more perfectly developing their kind, anatomically and physiologically, in the offspring. Now, to prevent confusion, let me call your attention to the importance of keeping constantly in mind the distinction between the primary power of reproduction and the power of producing a specific type of reproductive organs. The former has necessarily existed from the beginning of living matter, while the power of producing the specific type, anatomical and physiological, of sexual organs, now under discussion, extends to a period in the past not more remote than is represented by the higher vertebrata. This is markedly true of the menstrual function, for it is present only in the human and the higher type of monkey. Now, the question that directly concerns us is, not as regards the power of reproduction or the power of reproducing organs for reproduction, but as regards the power of reproducing a special type, physiological as well as anatomical, of reproductive organs, viz., the sexual organs of man. Of all the useful organs, the genitals of man are the most recent acquisition to living matter. I do not mean that genital organs are the most recent acquisition, but that this type of genital organs is. On the assumption that the theory of evolution is true, we find this assertion supported by a greater difference existing between the sexual organs of man and those of lower animals than are found between their other corresponding organs. This is more obviously true when applied to the physiology of the uterus, for we know that one of its functions—menstruation—does not extend as a perfect monthly physiological manifestation lower in the scale of life than is represented by the higher type of monkey. If what we have been saying is well founded, then the conclusion is justifiable that man's type of reproductive organs has the least power of contributing to the primary cell—ovum or spermatozooid—hereditary influences. This being so, it follows, as surely as the day the night, that their development, anatomical and physiological, is comparatively easily diverted or hindered, and hence their appearance in the offspring is the least certain of all other organs to be perfect in form and function. Does not our practical daily observation support this conclusion? I think so. In addition to this primary hereditary weakness in the development of these organs there may be a further diminution of the force of heredity, caused by a general or local parental subnormity. Some writers have made the assertion that an antenatal local inflammation may be responsible for an incomplete development of the sexual organs. In my opinion, whenever a pathological process deserving the name of inflammation exists antenatally, it will be so destructive in its effect as to prevent altogether the development of these structures or cause the effort to result in a malformation.

While I am firmly of the opinion that the lack of hereditary force may, and does, occupy an important ætiological position in a failure of the genital organs to develop properly, yet I am no less positive that it is secondary, theoretically and practically, in importance to the postnatal environments of the growing child. First, because the environments of any organ during its greatest growth are more potential for good or bad than its heredity is. To deny this would be to reject the principles underlying the ascent of the higher from the lower forms of living matter, and would leave us in the confusion of ignorance. Secondly, because the postnatal environments are capable of being changed or altered to suit the individual case—they are, as it were, in the grasp of the physician, and are, therefore, of the greatest practical importance.

This brings us directly to a discussion of the postnatal factors. We will first consider the predisposition, if any, after birth to an ill or imperfect growth of the sexual organs. Now, I do not, of course, believe that these organs are actively predisposed to imperfect growth, but I contend that there is, or may be, a negative predisposition to such a termination. In other words, a comparative absence of a decided positive activity to a full and perfect development. Upon the truth of this contention hinges much of value to the line of thought I am endeavoring to present. Let us see what facts there are in support of it.

A cursory observation suggests, and a close investigation unmistakably shows, that, as a general rule, Nature protects best and first those parts of the body that are most essential to personal existence—not those most necessary to the preservation of the race, but those, I repeat, most essential to personal existence or the preservation of the individual. This being true, the question properly arises as to the relative importance of the sexual organs to individual life. Going back to the dim dawn of personal life and watching the steps in the development of the component parts of the entity, we find that the uterus remains practically unchanged until within two or three years of puberty. At this time it begins to grow and prepare itself for the discharge of its peculiar functions—menstruation and pregnancy. In the ovary it seems probable that the ovules are being formed before the birth of the child, but ovulation does not, as a rule, take place until puberty. In short, at a period of life when the other organs are capable of perfectly performing their characteristic functions and maintaining a normal standard of physical well being in the person, the uterus is little better developed than at birth, and, with the ovaries, has not commenced the physiological cycle that characterizes the sex. Again, after an activity of twenty-five to thirty-five years, the functions of the uterus and ovaries terminate, while every other important organ continues to a much later period to discharge its characteristic duty. In other words, these organs are the last to begin and the first to cease, functionating; and, lastly, after the disappearance of their functions the health of the woman is not impaired. The abnormal nervous manifestations during the menopause do not prove to my mind that the functions of the uterus and ovaries are primarily necessary to individual health, any more than does the nervousness following the discontinuance of opium, in one who has acquired the habit, prove that this drug is primarily essential to individual health. From the foregoing, it seems to me, we are not only justifiable in concluding, but are forced to the conclusion, that the sexual organs contribute less than any others to personal health or individual existence. Indeed, it is not clear that they serve any purpose whatever in this direction. If we are correct in our conclusion, it indisputably follows that, in the development of the child, better provisions are made for the growth, anatomical and physiological, of all other organs than the sexual, and, therefore, that if any organs suffer from general deleterious influences, these are usually the ones furnishing, as it were, the *locus minoris resistantiæ*.

Having reviewed the antenatal and postnatal factors predisposing to an imperfect development of the uterus and ovaries, we are now prepared to consider the more practical side of our subject, viz., the environments of the developing girl that are often actively harmful in their effect on these organs. As our time is limited I will call your attention only to the two most frequent sources of evil, viz., school life and tight lacing.

Just before and during the transformation of the child into womanhood—"at this important time when the health of the growing girl may influence for good or evil the whole future of the woman"—we find her undergoing her greatest mental strain at school, with seven or eight hours —Dr. Wilkerson tells us he has known it to be more than twelve hours—of study and with little facility for physical exercise, or, if means for developing the body exist, there are usually no requirements in that direction. Now, when we recall that the general strength cannot be maintained, to say nothing of being developed, without exercise, and that mental taxation, combined with sedentary habits, invariably produces anæmia, need we ask ourselves how it comes about that so many pale faces and weak bodies are found in our female schools? We see, then, at the very time of life when the uterus is in need of a proper supply of food stuff, as it were, in the form of good rich blood, to develop and prepare itself for the assumption and discharge of its characteristic functions, the system of the girl is often enfeebled and cannot supply the demands made on it by this and its associated developing structures. As a natural consequence, the growing organs fall short of acquiring the power of properly discharging their duties, and the effort to do so results in abnormal manifestations. Mr. Hermann tells us, "leucorrhœa is not present in girls in robust health; but is not so linked with any definite condition of ill health, except anæmia, as to enable you to infer its presence without inquiry," and the essayist tells us that neurasthenia is notoriously common in school girls. Goodell was so impressed with the evil of school life that he usually asked his young lady patients if they stood high in school. Engelmann asserted that the college bred women had a sterility of 25.3 per cent.—more than twice what is regarded as normal to the human race. With these facts before us, it seems to me the conclusion is irresistible that our schools too often furnish environments that are frequently and permanently injurious in their effect on the growing sexual organs, to say nothing of the system as a whole.

Turning our attention now to the pernicious method of dressing—tight lacing—we have, in my opinion, a factor second to none as a cause in the unfitting of the female sex for the duties of life. When Nature begins to change the child into the woman—to develop those organs the peculiar functions of which characterize the sex—we too often find the girl or her parents, beguiled by a false conception of what is necessary for the acquisition of grace and beauty, placing the growing body in a mould, as it were. With the corset they begin, before the sex is functionally established, to shape the young body to a form which, in later life, serves more as a sign of ill health and unhappiness than as a mark for the eye of admiration. Applied after development is complete, and not tightly, I do not believe this garment to be, as a rule, harmful, but placed firmly and tightly around the young girl, it produces a pressure on the lumbar muscles that hinders their development, whereby the back is deprived of its normal support. Here you have the cause of the weak backs that are so often complained of, and that require constant artificial support. After the same manner the abdominal muscles are prevented from acquiring their full power. With the anterior abdominal wall subnormal in strength the intraabdominal suction-like force which, by some, is ranked so highly as a factor in the maintenance of the normal position of the uterus and appendages, is less than it should be. But the evil does not stop here. The intestines, and often other viscera, are forced out of their normal position and into the pelvic cavity, where they press upon the developing uterus and drive it into an abnormal position, forward or backward. Being displaced and under pressure, the circulation through the organ is more or less impeded. As a result, it becomes congested, fails in proper growth, and ultimately its structure undergoes pathological changes that render it incapable of rhythmically and painlessly performing its duties.

Since reading the foregoing, the following case, bearing upon some of the points I have endeavored to present, has come under my care:

Miss L., sixteen years old, is small in stature and markedly anæmic. Every movement of hers shows great nervous tension. She is a student in a female boarding school about sixty miles from Montgomery, and came to consult me in regard to the non-appearance of her "sickness." She gives the following history: Menses appeared two years ago, just before she entered college, but have not returned since. She enters the class room about 8 a. m., and, with the exception of one hour for dinner, remains until 4 p. m. After this, if the weather is good and she does not get excused, which she often does, she goes for a walk of twenty minutes. Returning to her room she studies until supper—7 p. m. After taking tea, she is occupied with her books until 10 p. m., when the lights are turned out. Her nights are usually restless. She often rises as early as 4 a. m. to resume her studies, in order to be prepared for "classes." One hour, twice a week, is given to physical culture.

Now, I do not believe this girl exaggerates the amount of work she is doing, for when I told her she should discontinue some of her studies and take more exercise, she protested against dropping any part of the course. She is but the representative of the ambitious girls of that school, most of whom will leave poorly prepared to meet the obligations of life, unless their commendable, though harmful, ambition is held in check by the exercise of better judgment on the part of the authorities than has been displayed in this case.

I do not decry the higher education of woman. Let it be a sensible and useful education. Let the development—the growth of body and mind—move *pari passu*, and then she will be a symmetrical whole, armed cap-à-pie with all the requisites and requirements to fulfill happily her important mission in the world.

Mercy Hospital, Denver.—Specifications for fire escapes, standpipes, and safety elevators for the proposed addition to Mercy Hospital, Denver, are being prepared. According to the new ordinance passed after the Iroquois Theatre disaster in Chicago, the plans for all new hospitals must be submitted to the building inspector for determination of the facilities for fighting fires and removing helpless patients to places of safety. At least two specially constructed hospital stairways or elevators will be required at opposite ends of the structure, which is to be from four to five stories in height. There will be three or four large standpipes and a number of ordinary fire escapes.

IMMUNITY.*

By ANNA M. STUART, M. D.,

ELMIRA, N. Y.,

ATTENDING PHYSICIAN, SOUTHERN TIER, ORPHANS' HOME AND ELMIRA ANCHORAGE; PATHOLOGIST TO THE GLEASON SANATORIUM; BACTERIOLOGIST TO THE ELMIRA MILK COMMISSION.

Probably in the future the period of medicine covered by the last twenty years will be spoken of as the rise and fall of antisepsis. First came the development of the microscope and the discovery of death dealing germs, then the ingenuity of man exercised to combat these germs with chemicals of all sorts, and, at last, the great swing of the pendulum back to the wisdom of our forefathers, that in man himself lies the power to conquer his enemy.

When I was a child, had my first microscope, saw a germ for the first time, and was told that Pasteur had discovered that these germs produced disease, I said, with wild enthusiasm, that we should learn to kill these germs with drugs and to exterminate disease. An old doctor gave me what I then thought to be a foolish answer, but now believe to be a wise one, " We cannot destroy these germs and not destroy the living tissues."

How rapidly surgical teaching has changed in this regard. It is not so long ago that operations were performed under a carbolic spray. How barbarous that would seem to-day. Then there was a period of powerful antiseptic irrigation and wet dressings saturated with antiseptics. These things have passed and we say antisepsis has given place to asepsis.

Asepsis, however, is not the final word, for, in the perfection of our technics we often forget our greatest ally, the resistance of the tissues.

How many death certificates have you and I written for our charity patients? How many poor women have we delivered on a surgically clean bed? How many rich patients survive appendicitis or any severe infection?

These things are matter of comment among us. We speak of them as freaks of fortune. Why, long ago they were observed. Lord Byron, standing at the tomb of the dead Roman matron, wails: " Peasants bring forth in safety." And you and I dread our fine class of obstetrical work in spite of the big fee and the perfect nursing.

There must be a reason for these facts; the blindness of fortune can have nothing to do with it.

The matter of toxine and antitoxine has been most successfully studied in the disease of diphtheria. Reasoning from this by analogy we may be able to draw a few useful conclusions. Any animal, including man, poisoned by diphtheria, goes to work to elaborate an antidote in its own tissues, sometimes successfully, sometimes not in sufficient quantity. We take advantage of the antitoxine elaborated by the horse to reinforce the deficient quantity in our patients. Now it is observed that nurses and doctors, constantly over cases of diphtheria, become approximately proof against the disease without antitoxine injections. I noticed that the nurse in the Heidelberg diphtheria hospital seemed to take no precautions for herself whatever. She said she had been three years lifting diseased children in her arms. When the tracheotomy tubes became clogged she often drew out the membrane by suction with her mouth closely approximated thereto by means of a little rubber tubing. Accidents often happened and bits of membrane passed up the mouth tube.

I believe that she was constantly receiving small doses of poison and by that means developed her own antitoxine just as the horses do. I have thought that I did the same when over many cases of diphtheria, and, for that reason, have never taken antitoxine.

There are many examples that illustrate this principle. It is commonly observed that it is the traveler who suffers most from any endemic disease that exists in the country he visits. The Northerner going South dies of malaria, yellow fever, or cholera How many of our own typhoid fever cases are among strangers and young people who have returned from a distant school two weeks before the attack! It certainly seems that small repeated doses of the poison do develop their own antidote in all our common germ diseases.

Now the problem which presents itself in preventive medicine is growing more complicated. Once we supposed we had the solution, a simple matter: Away with all germs! We will bring up the child of intelligent and wealthy parents by what Kipling calls, when applied to the moral training, the protective system. He is brought up in the fear of germs from the time of his first bath and scrubbing out of his mouth, through the period of certified milk and boiled water. Our sanitary system protects him in school from exposure to contagious diseases. When he leaves the watchful eye and busy hands of his nurse, he has acquired such habits of cleanliness that he never gets his ancient inheritance, that full peck of dirt. This power of his blood, of which we have been speaking, to develop antitoxine is never called upon. But sometimes there is a flaw in his armor; a germ infection does reach him; then where is the " sword of fray? " No medicine, no surgical work, no nursing can stop the fatal progress of that germ.

I know that this is heresy, for we are still in the period of asepsis; but consider for a moment the fate of other powers or organs of our body that we have ceased to use. By our brains we have invented shelters and weapons of defence, therefore we have lost the strong arms that swung our arboreal ancestors from tree to tree. We have cooked and refined our food until our jaws are so short that they will not accommodate our wisdom teeth, and our other teeth will not last out half our lifetime. Eating less and less bulky food, we have shortened up a great pocket in our intestine until now the miserable appendix cannot maintain its own vitality. Some of us, I am sure, have made the mistake of giving a rebellious stomach easier and easier food to digest and more and more artificial help, until the lazy organ, like a spoon fed baby, refuses to work at all.

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* Read before the Elmira Academy of Medicine.

Reasoning from this well known principle, illustrated by these examples, I ask you to consider if we may not destroy this power of our blood to develop immunity, simply by lack of use.

So much for preventive medicine; now for the application of this principle to our daily work, the healing of the sick. We have been just as frantic in our attempts to destroy these germs in disease as in surgical cases. I am rather tired of the literature that pours into our offices announcing a new non-toxic germicide, and I am still more tired of the many vaunted intestinal antiseptics, especially those advised for use in typhoid fever. I cannot help doubting whether all these have even the virtue which Osler ascribes to them, namely, that of doing no harm.

I believe the typhoid patient, the pneumonia patient, and the tuberculous patient will stand a better chance of developing his own antitoxine if we conserve his strength, and stop irritating his tissues with foreign substances. Probably, in the future, we shall treat not merely tuberculosis, but also pneumonia, typhoid fever, and nearly all other infectious diseases, in tents, and our therapy will consist of air, water, the management of the blood pressure, and proper feeding.

The point that I want to make is this, that in our eagerness to destroy the germ, we are forgetting to build up our chief ally, the immunity of the patient against that germ. The surgeon has constantly before him demonstration of this power of the body to develop antitoxines to sepsis. He knows that tissues immediately in contact with pus are immune; that tissues remote from the seat of trouble or remotely adjoining it are sensitive and easily infected. So anxious are we often to exterminate pus, to irrigate and destroy germs, that we break into and irritate this sensitive tissue with disastrous results.

How many appendicitis cases have been sacrificed to the desire to get the appendix, disregarding Nature's careful pocketing of pus and walling off by adhesions! All good surgeons know this: that there is a time to cut and a time to wait. But I am always sorry for the surgeon who must operate on some one of our "protected" patients. I notice that the same man will easily save all my charity patients who have eaten their full peck of dirt.

Therapeutical Notes.

Tuberculous Peritonitis.—In the acute forms of this disease, says *Journal des praticiens,* for August 13, 1904, the treatment is the same as for any acute peritonitis; ice on the abdomen, opium, milk diet.

In the chronic forms, surgical interference is rarely demanded; never, perhaps, unless there is intestinal occlusion or a suppurative process. Ordinary cases respond well to medicinal treatment, external and internal. Externally, the abdomen should be painted with tincture of iodine; when this is dry, apply collodion. An application of guiacol, one part to ten parts of oil, has been recommended. After the painting, the abdomen is covered warmly with cotton. Brisk friction with soap has been tried. The actual cautery and fly blisters have relieved pain; the urine should be examined, of course, before blistering. The following soothing ointment is classical:

℞ Extract of belladonna }
Extract of hyoscyamus } of each...........1 gramme (15 grains);
Extract of hemlock }
Chloroform ....3 grammes (45 minims);
Benzoated lard..............30 grammes (1 ounce).
M. Ointment; use morning and evening.

In the internal treatment care should be taken not to disturb digestion. Codliver oil is not well borne. Tannic acid, combined with arsenic, is thus prescribed in France:

℞ Infusion of walnut leaves...10 grammes ($^{1}/_{3}$ ounce);
Garus's elixir............50 grammes ($1^{2}/_{3}$ ounce);
Sodium arsenate.........1 centigramme ($^{3}/_{20}$ grain);
Syrup of cinchona.........150 grammes (5 ounces).
M. Two tablespoonfuls daily.

Garus's elixir is a favorite French compound of cloves, aloes, saffron, myrrh, cinnamon, nutmeg, vanilla, maidenhair fern, orange flower water, sugar, and alcohol.

In case of diarrhœa, instead of giving the arsenic internally, hypodermic injections of sodium cacodylate should be administered; these might be alternated with injections of lecithin or the glycerophosphates.

Thomas, of Geneva, advises:

℞ Codliver oil.............100 grammes ($3^{1}/_{3}$ ounces);
Beechwood creosote..50 centigrammes (7½ grains).
M. For a daily enema.

For diarrhœa, bismuth, opium, and tannic acid are indicated; for constipation, castor oil.

As in pulmonary tuberculosis, hygiene plays the principal part; tonic and easily digestible food, eggs, broiled meat, fresh butter, milk stews; fresh air and rest; the seaside when fever has disappeared; saline waters all are valuable. Under such conditions, Comby had 10 recoveries in 14 cases among children.

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URANIUM AS A DRUG.

We are all more or less familiar with certain fitful trials of uranium as a drug, especially in the treatment of diabetes, of which contradictory reports have been recorded. Recently, now that radioactivity has attracted widespread attention, its radiant action has been to some extent the subject of experiment in therapeutics. Of considerable importance from the therapeutic point of view is a graduation thesis entitled The Pharmacology and Therapeutics of Uranium, by Dr. Frank Edward Tylecote, resident medical officer of the Manchester Workhouse Infirmary and Turner scholar in medicine of Owens College. An abstract of Dr. Tylecote's thesis, which does not deal with uranium as a radioactive body, but only as a drug used by ordinary methods, appears in the September number of the *Medical Chronicle.*

The nitrate is the salt of uranium that Dr. Tylecote has used therapeutically, because he has found it "the easiest to obtain pure at a reasonable price." It is an astringent and a moderately efficient hæmostatic. A solution containing two grains to the ounce is a very useful application for ulcers and abraded surfaces, such as ulcers of the leg, acting much like sulphate of zinc. In the solid form it is hygroscopic, and, as it contains some free nitric acid, it is a caustic. He has observed excellent results from a five grain solution used as a urethral injection in obstinate cases of gonorrhœa. "It cured a case in six days on which a weak permanganate solution had had no effect in as many weeks." Employing uranium nitrate and zinc chloride (two grains to the ounce) in alternate cases, he invariably cured the trouble with uranium more rapidly than with zinc, but it must be noted, he remarks, that the uranium solution was stronger than that of zinc. The action of the drug, he thinks, is simply that of an astringent, for he has found that it has very little if any germicidal power.

Administering the drug internally in cases of diabetes, he has not encountered any complaints of its disturbing the digestion, and he has formed the following impressions of its use in diabetes: "In every case it caused at the outset a rise of body weight, which continued if the dose was not pushed too far, and was accompanied by a feeling of improved condition and spirits on the part of the patient. In no case did any appreciable diminution in the daily amount of sugar excreted occur." He was very cautious in the internal use of the drug, beginning with one grain given three times a day, immediately after meals and well diluted. The appearance of albuminuria, or its increase when it had been present before, was the signal for discontinuing the use of uranium temporarily.

ERUPTIVE AFFECTIONS OF THE MUCOUS MEMBRANES.

The word eruption, used to cover the great multitude of cutaneous lesions, is of course a misnomer, but it is a convenient one, and on that account it will probably continue to be employed for a long time to come. When we speak of eruptive affections of the mucous membranes, it will be understood, therefore, that we have reference simply to the occurrence of lesions more or less closely resembling those that are met with on the skin. From the point of view of the general practitioner these manifestations in the mucous membranes have hardly been set forth sufficiently in the textbooks, and even the dermatologist finds that their study has not been commensurate with that of strictly cutaneous diseases. Yet there is in our literature a great mass of material bearing on the subject. Much of it was ably turned to account at the last meeting of the American Dermatological Association by Dr. John A. Fordyce, of New York, and Dr. M. F. Engman, of St. Louis, who added valuable observations and deductions of their own. Those gentlemen's papers, together with the discussion that followed their presentation, are published in the September number of the *Journal of Cutaneous Diseases.*

The general practitioner is accustomed to examine the mucous surfaces within the mouth in attempting the diagnosis of some of the acute exanthematous diseases, and he frequently derives material aid from such a procedure in cases of incipient smallpox or measles. This was duly mentioned in the papers and in the discussion. That the physician's dependence on the presence or absence of oral lesions in the diagnosis of an incipient febrile disease should not be carried too far may be gathered from Dr. Ravogli's statement that he had sometimes failed to find such lesions in the initial stage of undoubted cases of smallpox.

An interesting point brought out in Dr. Engman's paper, on which he cited Mantegazza, Anthony, and Brunner, was that of the occurrence of vesicular lesions of "the diaper region" in infants affected with diarrhœa, said lesions being due to infection with the *Bacillus coli communis.*

THE ADORNMENT OF HOSPITAL GROUNDS.

Endeavors to beautify hospitals and their surroundings, or at least to relieve them of the grim look to which they seem to be so predisposed, are always to be commended, not only for the impression made upon visitors, but also, and essentially, for the moral effect on such of the patients as are able to walk about or be wheeled on to verandas or through the grounds. We may therefore set it down as a fact that a modest contribution to the September number of the *Journal of the Royal Army Medical Corps,* entitled Hospital Gardens, by Lieutenant Colonel H. L. Battersby, of the corps, is likely to be productive of much good. It is with military hospitals, and especially with the post hospitals of the United Kingdom, that Colonel Battersby is dealing, but what he has to say is applicable to most rural hospitals in temperate climates and to many of the urban establishments in civil life.

A well kept lawn, particularly one with grassy slopes, is duly admired by Colonel Battersby, but he expresses his decided preference for a flower garden, and though to the eye green may be the most restful of colors, the diversity of well arranged flower beds, herbaceous borders, and flowering climbers is to most persons more pleasing. It seems that in the British army there is a generous allowance for the moderate expense necessary to keep up a garden at every post hospital, but it appears that better advantage might be taken of it than is generally done. In the first place, the fund is quite as available for hospitals having no grounds as for those with extensive approaches, so that part of the money is in a certain sense wasted. In the next place, everything concerning the garden is left to the taste and discretion of the officer in charge, and changes of commandants are so frequent that no one officer's sense of fitness, assuming that he has a modicum of that uncommon sense, finds opportunity for adequate expression. Competent gardeners, too, are not easily drawn from among the enlisted men. For these reasons Colonel Battersby is inclined to think that the floral adornment of post hospital grounds would in general be better attended to if it were given into the hands of local contractors, the contract to be kept in force as long as satisfaction was given.

MALINGERING AMONG CRIMINALS.

One of the most peculiar phases of the psychology of the criminal is his tendency to malingering. Physicians who deal with large bodies of men find that their labors are greatly enhanced by cases of feigned illness of various kinds. Nowhere is the burden of distinguishing between real and assumed illness so great as it is within the walls of prisons. The inexperienced physician who takes charge of a penal institution finds it impossible at first to do the work that devolves upon him, on account of the large number of inmates who feign illness. It requires considerable knowledge of human nature and somewhat prolonged experience in institutional work to enable one to avoid, on the one hand, the impositions attempted upon him by malingerers, and, on the other, the danger of injustice to those who are really ill. The prison physician who assumes that all convicts who report to him for treatment are really ill will be overburdened with care. He who goes to the opposite extreme will work great cruelty and injustice to those who are really ailing.

The prison physician, even when he has had considerable experience, is quite as likely to make mistakes in diagnosis as physicians outside of prisons, whom no one claims to be infallible. As a matter of principle, it is better to be deceived by a dozen malingerers than to allow a single *bona fide* invalid to go without proper care. The prison physician is a powerful factor for good or evil. He exerts a humanizing influence upon his charges such as no one else possibly can. The milk of human kindness is not always thrown away upon the convict, and nothing makes him more rebellious than to feel that common humanity is denied him.

Malingering on the part of criminals is usually attributed to a desire to escape work. This may be the explanation of many cases, but certainly is not a sufficient explanation for all. Work within reasonable limits is agreeable perhaps to the majority of American prison inmates, who welcome it as a relief from the deadly monotony and stagnation of prison life which, in the absence of systematic occupation, would necessarily prevail. There are few convicts, indeed, who do not realize that suitable occupation is better for them physically than cell confinement. The records of prison management have shown the necessity of engaging convicts in employment of various kinds. Prior to the introduction of labor in prisons a very large proportion of convicts went insane within a comparatively short period.

Criminality is by no means always an evidence of a desire to shirk industry in the battle of life, nor is it necessarily an evidence of incapacity to obtain success by honest means. Many a criminal by profession expends talent and energy and exhibits a faculty of application in his chosen field of labor which, if diverted into proper channels, might make him phenomenally successful. His moral perception is blunted by his innate response to the law of self-preservation along what he considers the line of least resistance. Counterfeiters sometimes display talent and industry which should find a ready and much more remunerative market than in defrauding the government. Bills of large denomination, produced entirely by pen work and well worth their face value as works of art, have been seized at various times, and they must have cost more in labor, to say nothing of the skill involved, than could have been earned in legitimate work of the same kind during a like period. The counterfeit in some instances has been detected by the superior excellence of the work.

My experience leads me to believe that the malingering of convicts is in itself a manifestation of degeneracy. The unstable nervous equilibrium of the criminal evolves a craving for sympathy, and a craving more particularly for diversion from the monotony of prison life. The sick call is an event in his existence, and to profit by it he will swallow the most nauseous doses willingly. No treatment is severe enough to dissuade him from malingering. The intensification of the ego on the part of the criminal is a further explanation of malingering, in that it leads him to believe himself an object of solicitude, or at least interest, on the part of others. He has also the idea that the rough places in his prison career will be smoother in proportion as he excites the sympathy of those about him.

Criminals who are denied stimulants and tobacco sometimes find in drugs a gastronomic novelty that seems to them greatly to be desired. In many instances malingering is due to hypochondriasis pure and simple, the patient being in no wise different from the hypochondriac seen in private practice who suffers from imaginary ailments and has acquired a taste for drugs. Dr. Druet, of the Animosa Penitentiary, believes that many malingerers in prison are simply individuals with the patent medicine habit who, having fallen into the toils of the law, desire to continue titillating their palates with drugs.

There is a class of convicts who are desirous of having surgical operations of various kinds performed for the relief of deformities, unsightly scars, etc. In some instances the patient is merely responding to his desire for sympathy and an opportunity to lie up in hospital, where he will be well taken care of. In others—and this class comprises perhaps the majority of cases—he merely wishes to rid himself of marks of identification. Through this desire I obtained considerable experience in correcting nasal deformities during my prison service. The relatively luxurious diet and ease of hospital life impel some convicts to feign illness. One of the prime factors in the encouragement of malingering is the custom that prevails in prisons of dispensing "soft" positions to favorites among the convicts. Without any difficulty whatever, the warden can usually secure the assignment of a convict to whom, for reasons best known to himself, he desires to be especially kind, to the hospital, where he is often kept during the entire term of his sentence. Convicts who are not used to hard labor are sometimes assigned work which is little less than slow death for them. I have known men who were at work in the stone yard to deliberately smash their fingers and toes with a setting maul, for the purpose of being sent to the hospital. One man sacrificed his fingers in this way so frequently that I finally, in sheer pity, allowed him to remain permanently in the hospital.

Malingering is a very difficult thing to cure. I finally succeeded, in my own prison service, in a way that may suggest itself as practical to other prison physicians. For months I had vainly tried indescribably nauseous doses and the dark cell. I finally hit upon the expedient of having the sick call sounded at dinner time. The success of the experiment is shown by the fact that, whereas one hundred and eighty men appeared in the sick line the previous day, there were only twelve in line on the first day of the new arrangement. The latter number is about the average that presented themselves at the daily sick call during the remainder of my term of service. G. Frank Lydston.

ONYALAI.

With the increased attention paid of late to the pathology of the tropics we are rapidly hearing of new diseases, or at least of diseases with new names. One of these, called by the natives onyalai, says Dr. A. Yale Massey (*Journal of Tropical Medicine,* September 1st), is found among the blacks of Portuguese West Africa. It is characterized by blebs containing semicoagulated blood on the palatal and buccal mucous membrane, without the signs of acute constitutional disease. The natives consider it deadly, but Dr. Massey has met with only one fatal case, that of a robust girl of seventeen.

SIMULATED INTESTINAL PERFORATION.

We recently commented on some cases in which certain French observers had met with symptoms apparently so indicative of intestinal perforation from typhoid fever as to lead to the performance of laparotomy, though nothing but hyperæmia was found. Dr. Robert Coleman, of New York (*Medical News,* August 6th), speaks of a case in which gaseous distention of the stomach led to so strong a suspicion of perforation that the same operation was performed.

THE NEW FACTS AND THEORIES REGARDING IMMUNITY.

The physicians of New York will be given an opportunity to hear Professor A. Wassermann, of Berlin, present a synopsis of the new facts and theories regarding immunity in the form of a lecture before a special meeting of the Pathological Society in the Academy of Medicine on September 28th. Professor Wassermann's name has become widely known in the United States through the translation of his work on *Immune Sera.* The handbook of pathogenic microorganisms prepared by Professor Wassermann, in association with Dr. Kolle and others, is the most elaborate and extensive work in this field, and it is to be regretted that so far no English edition of it has appeared. Professor Wassermann's address will be delivered in German, which fact will debar many from the advantages that might otherwise be derived from listening to him. We are informed by the officers of the society that the lecture is intended to be in the nature of a popular exposition of the subject and of a character calculated to interest the general practitioner as well as the pathologist.

PRECORDIAL REFRIGERATION.

There is nothing new in the idea of reducing the general temperature by local refrigeration, so we cannot accord entire novelty to the scheme of treating pyrexia by applying an ice bag over the heart, as was lately somewhat enthusiastically advocated before the French Association for the Advancement of the Sciences by Dr. Stéphane Leduc (*Bulletin médical,* September 7th). M. Leduc seems to be certain that the precordial situation of the refrigerant cools the blood in the heart and thereby diffuses coolness through the system, thus revealing a rather speculative, not to say fantastic, theory.

News Items.

Society Meetings for the Coming Week:

MONDAY, *September 26th.*—Medical Society of the County of New York; Lawrence, Mass., Medical Club (private); Cambridge, Mass., Society for Medical Improvement; Baltimore Medical Association.

TUESDAY, *September 27th.*—Metropolitan Medical Society, New York (private); Buffalo Academy of Medicine (Section in Obstetrics and Gynæcology); Richmond, Va., Academy of Medicine and Surgery; New York Medical Union (private); Rome, N. Y., Medical Society; Boston Society of Medical Sciences (private).

WEDNESDAY, *September 28th.*—New York Academy of Medicine (Section in Laryngology and Rhinology); New York Pathological Society; American Microscopical Society of the City of New York; Philadelphia County Medical Society; New York Dermatological Society (private); Auburn, N. Y., City Medical Association; Berkshire, Mass., District Medical Society (Pittsfield).

SATURDAY, *October 1st.*—Manhattan Medical and Surgical Society, New York (private); Miller's River, Mass., Medical Society.

NEW YORK

Change of Address.—Dr. L. W. Bremerman, to The Fanwood, 112 East Seventeenth Street, New York.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending September 17, 1904:

	Week end'g Sept. 10.		Week end'g Sept. 17.	
	CASES.	DEATHS.	CASES.	DEATHS.
Measles	40	8	43	4
Diphtheria and croup	176	25	224	16
Scarlet fever	60	2	58	4
Smallpox	..	..	2	..
Chickenpox	2	..	3	..
Tuberculosis	391	139	305	145
Typhoid fever	146	21	93	21
Cerebrospinal meningitis	..	15	..	19
Totals	815	210	728	209

Bequests to Charity of Solomon Gerber.—The Lebanon Hospital, the Home for Aged and Infirm Hebrews, the Hebrew Sheltering Guardian Society, and the Hebrew Free Burial Association are to receive $250 each under the will of Solomon Gerber, of 233 West Fifteenth Street, filed for probate on September 15th. He left an estate valued at about $6,000. The residue is to go to his family.

New York Pathological Society.—A special meeting of the society will be held at the Academy of Medicine, 17 West Forty-third Street, on Wednesday, September 28, 1904, commencing at 8.30 p. m. Programme: Address (in German) by Professor A. Wassermann, of Berlin, A Discussion on Several New Points concerning the Theory and Practice of Immunity. Otto H. Schultze, M. D., President; F. C. Wood, M. D. Secretary, 205 West Fifty-seventh Street.

Bequests to Charities by Herman Baer.—The will of Herman Baer, who died at No. 2094 Fifth Avenue on September 4th, was filed for probate on September 17th. It disposes of an estate of $45,000 in personal property. The following charitable bequests are made: To the Jewish Congregation of Stadthagen, Germany, $150; to the Hospital for Sick Poor at Stadthagen, Germany, $100; and to the Hebrew Benevolent and Orphan Asylum Society of New York, $100.

The Bay Ridge Dispensary, which is to be a branch of the new Bay Ridge Hospital and Training School for Nurses, will be formally opened on the first Sunday in October at Third Avenue and Sixtieth Street, Brooklyn. The institution is to relieve the sick poor in Bay Ridge and South Brooklyn. The board of directors of the hospital and dispensary are J. Lott Nostrand, John Beet, Walter L. Durack, Dr. George Chaffee, Frank Gelston, Michael Murphy, George Hanbury, Daniel B. Seaver, and Walter M. Meserole.

Dinner to Dr. Golding.—The house and visiting staffs of St. Catharine's Hospital on September 12th tendered a banquet to Joseph E. Golding, who severed his connection on that day as senior house surgeon of that institution. The banquet was held in the parlor of the hospital doctors, which is directly opposite the Bushwick Avenue institution. Dr. Golding has been a member of the house staff of St. Catharine's for fifteen months, and his retirement is greatly regretted by his associates, as well as by the Sisters of the St. Dominican Order, who have charge of affairs in the hospital.

Radium Bromide is Dutiable as a Salt.—For the present, at least, imported radium will have to pay duty as a chemical compound or "salt" at the rate of 25 per cent. ad valorem. A firm of this city, who have been contesting Collector Stranahan's assessment on radium before the Board of United States General Appraisers, filed formal notice on September 14th of the abandonment of their case. At the hearing the importers asked free entry for about $1,000 worth of the precious radium on the ground that it was free of duty under the Dingley tariff law as a crude mineral. Most of the testimony, however, was to the effect that the radium concerned was a salt, and by no means crude. The protest having been abandoned, the collector's assessment of 25 per cent., amounting on the importation to $250, will stand.

Brooklyn People Interested in a Connecticut Hospital.—Four well known Brooklynites are interested in a project to erect a hospital in connection with the Cheshire Academy, at Cheshire, Conn. They are John S. McKeon, whose two sons attended the school; Harry Gaubert, Howard Kingsland, and Mrs. Purdy. All the money necessary for the building of the hospital, about $10,000, has been pledged and plans for the structure are now being drawn. Besides wards for patients there will be rooms for nurses, and the bursar, J. W. Harriman, of Manhattan, who contributed generously toward a $100,000 fund for improvements to the school, has appointed the Reverend J. F. Sexton, of Westville, Conn., as his representative. Mr. Sexton will have full charge of the school. He will not give up his parish work for the present.

The Lying-In Hospital.—In the month of August the Lying-In Hospital has had 622 applicants for treatment, of whom only 185 could be admitted and cared for in the hospital wards. The number of children born in the hospital during August was 154. For the same period in the out-door department 377 applicants applied for assistance in their own homes and 284 were treated in confinement. The number of medical visits was 1,365. Through the Ladies' Auxiliary 1,695 garments were distributed and 238 patients supplied with caretakers. The Ladies' Auxiliary also gave coal and other articles and made 1,329 visits to assist and aid. The diet kitchen assisted families who were absolutely destitute with tea, coffee, bread, sugar, oatmeal, and milk. The work of the hospital during the month of August was the largest since it was opened. For the year ending September 1st the hospital has had 5,715 applicants and 4,205 women have been cared for. Relief was denied to more than 1,500, owing to lack of means, as the service is restricted to one ward floor; 1,458 patients have been cared for in the hospital building, a monthly average of 121, and 2.747 relieved through the out door department, averaging 229 births per month, making the total monthly average during the past year 350.

Columbia's Opening Exercises.—The exercises to mark the opening of the 151st academic year of Columbia University, will be held in the University Gymnasium on Wednesday, September 28th, at 3 p. m., and will be open to the public. The address will be delivered by Professor Robert Simpson Woodward, Dean of the Faculty of Pure Science, whose subject is to be Academic Ideals. The exercises this year will be marked by the presence of the Archbishop of Canterbury, one of whose predecessors in office was the first ex officio trustee named in the original charter of King's College. Upon the conclusion of the exercises in the gymnasium, the Archbishop of Canterbury will formally dedicate to religious uses the site upon which the new university chapel is to be built. The Archbishop will be escorted to his place upon the platform in the gymnasium by an academic procession consisting of the officers of instruction and of the members of the boards of trustees of the several corporations included in Columbia University. Seats will be reserved upon the floor of the gymnasium for the students, grouped according to schools, and also for members of the families of the trustees and officers of instruction.

PHILADELPHIA.

The Health of the City.—The following contagious diseases have been reported for the week ending September 10th:

	Cases.	Deaths.
Typhoid fever	100	14
Scarlet fever	45	4
Smallpox	1	1
Diphtheria	59	9

The total death rate for the week was 400 in an estimated population of 1,408.154, corresponding to an annual death rate of 14.77 per 1,000. There have been the following deaths from other contagious and infectious diseases: Malarial fever, 1; measles, 1; tuberculosis of the lungs, 44; other forms of tuberculosis, 7; pneumonia, 11; puerperal fever, 1; dysentery, 2; cholera morbus, 2; diarrhœa and enteritis, under two years, 47. There were no unusual meteorological conditions recorded by the weather bureau.

Meeting of Medical Societies for Week Ending October 1st.—Tuesday, Northwest Medical Society; Friday, South Branch Philadelphia County Medical Society.

Address by Dr. Flick at Reading.—Dr. Lawrence F. Flick, director of the Phipps Institute for the Study, Prevention, and Treatment of Tuberculosis, delivered an address at a public meeting in Reading, September 16th, in behalf of the Reading Sanitarium for Tuberculosis.

Assistant Medical Inspectors.—The following physicians have been appointed assistant medical inspectors: Dr. Harlan Shoemaker, ex-resident of the Municipal Hospital. Dr. Shoemaker's appointment is dated August 1st; he has been assigned to the second ward. Dr. H. G. Fretz, ex-resident physician at Girard College. Dr. Fretz's appointment is dated September 1st; he has been assigned to the thirty-third ward. Dr. Arthur Wrigley was appointed September 18th, and assigned to the thirty-ninth ward.

Water Supply of West Philadelphia.—In future the 6,000,000 gallons of unfiltered water, which are required to complete the supply of West Philadelphia on account of the deficient capacity of the Belmont Filter Plant, will be supplied to a definite district only, instead of being mixed with the general supply of filtered water.

Address at McGill University by Dr. Abbott.—Dr. A. C. Abbott, president of the Board of health and professor of Hygiene in the University of Pennsylvania, left on September 15th for Montreal, Canada. Dr. Abbott is to deliver the address at the opening of the winter session of the medical department of McGill University.

New Physical Director for the University of Pennsylvania.—Dr. R. Tait McKenzie, formerly of McGill University, Montreal, Canada, is to be the director of the new gymnasium at the University of Pennsylvania during the coming academic year. We hope that Dr. McKenzie's remarkable talents, with the pencil and in clay modeling, will receive due recognition in his new position.

Changes of Address.—Dr. John M. Cruice, to 1815 Spruce Street; Dr. Charles A. Groff, to 222 North Thirteenth Street; Dr. Louis F. Love, to 1305 Locust Street; Dr. Charles J. Hatfield, to 258 South Eighteenth Street; Dr. George M. Boyd, to 1909 Spruce Street; Dr. J. M. Baldy, to 1722 Chestnut Street; Dr. Stephen E. Tracy, to 1415 Walnut Street; Dr. Rachel S. Skidelsky, to 824 North Twenty-fourth Street; Dr. Arthur Van Harlingen, to 1831 Chestnut Street; Dr. Albert McConaghy, to Perry Building, Sixteenth and Chestnut Streets.

The Needs of the Municipal Bacteriological Laboratory.—The Mayor visited the bacteriological laboratory of the board of health recently and inspected the laboratory and the work being done there. The director of public health and charities desires that the old Zane school building at Seventh and Filbert Streets be turned over to the laboratory, so that more facilities can be had for the very important work being done in the line of public sanitation. Since 1897, 32,878 Widal examinations have been made in the public laboratory; since 1896, 38,981 doses of antitoxine have been distributed, and in July and August of this year 353,028 quarts of milk were inspected.

Philadelphia County Medical Society.—The first meeting of the Philadelphia County Medical Society for the winter was held at the College of Physicians, Thirteenth and Locust Streets, on Wednesday, September 14th. Dr. Alfred Gordon read a paper entitled A Note on the Rôle of the Thyreoid Gland in Exophthalmic Goître Associated with Paralysis Agitans. Dr. E. K. Shelmerdine read a paper entitled A Ready Method for Formulating Modified Milk Mixtures. The meetings of the branches of the society were also resumed this month after the summer recess. The meeting, which should be held on September 28th, will be omitted on account of the meeting of the Medical Society of the State of Pennsylvania at Pittsburgh at that time.

Meeting of the Society of Chemical Industry.—The foreign members of the Society of Chemical Industry, who are making a tour of the Eastern part of the United States, under the auspices of the New York section, reached Philadelphia, Monday morning, September 12th. After a visit to Independence Hall, the members, together with the members of the International Geographical Society, were entertained at luncheon at Houston Hall, University of Pennsylvania. Dr. C. C. Harrison, Provost of the University of Pennsylvania, made a short address. After the luncheon, the John Harrison Chemical Laboratory was inspected, under the guidance of Dr. Edgar F. Smith. In the afternoon the members formed several parties for the inspection of points of interest. Among the industrial establishments visited were the Belmont Filter Plant, the Harrison Chemical Works, the Ammonia Company, the Atlantic Refining Company, the plant of the United Gas Improvement Company, Burke Brothers' Tannery, and the various breweries. After a dinner at the Germantown Cricket Club at Manheim the members took a special train for Washington. Among the noted chemists present were Sir William Ramsay, of London, the president of the society; Charles G. Criswell, of London; Thomas Tyrer, of Stratford, England; Professor H. Erdmann, of Berlin; Professor Möhlau, of Berlin; Dr. J. Lewkowitsch, of London; Dr. R. Messel, of Westminster, S. W.; Dr. F. B. Power, of London; E. B. R. Prideaux, of Beckenham; James Cumming, Jr., of Melbourne; Dr. W. Hermsdorf, of Chemnitz; H. Sidney Pearce, of Johannesburg; Fritz Wünsche, of Dresden; William Dreyfus, and Christopher Rawson, of New York; Dr. George Rosengarten, and Samuel P. Sadtler, of Philadelphia; Lyman P. Hall, of Haverford; Professor Bogert, of Columbia University; Leo Balkland, of Yonkers; Virgil Coblentz, of New York; Gellert Alleman, of Swarthmore, and Edgar F. Smith, vice-provost of the University of Pennsylvania.

GENERAL

Dr. T. H. Hall has been elected city physician of Dublin, Ga., although he was not an applicant for the position.

Dr. J. G. English, of Detroit, Mich., has been elected Grand Secretary of the Michigan Consistory, A. A. S. R., *vice* W. H. Allison, resigned.

Dr. A. T. Mitchell, of Vicksburg, Miss., is reported to have disappeared mysteriously while on a journey to New York to visit Dr. Alexander Duane, of 49 East Thirtieth Street.

The Boston Floating Hospital.—Subscriptions to the amount of $12,869.18 have been acknowledged by the trustees of the Boston floating hospital for the new boat fund.

Scarlet Fever in Buffalo.—An epidemic of scarlet fever in the so called fashionable quarter of Buffalo has been traced, it is said, to a farm supplying that quarter with milk, at which a child of the owner was suffering from the disease.

Dr. Wallace Clarke, of Utica, has been appointed by Dr. Daniel Lewis, New York State commissioner of health, as smallpox expert in his department. The salary is $5 a day and expenses when actually employed.

The City Hospital of San Francisco, Cal., is reported to be crowded, putting the board of health of that city in a serious predicament, as patients, if room is not found for them in the hospital, must go to the almshouse. Complaint is made that there is a lack of funds, obliging the health commission to conduct the hospital on very economical lines.

Women Doctors in Russia.—New statutes, just issued in Russia, place women doctors on practically the same footing both with regard to education and practice as their male rivals. Women may now obtain diplomas, pursuing their studies for medical degrees in the universities of the country and in the Military Medical Academy. But the law restricts Jewish students to 3 per cent.

Hospital of the Sisters of Mercy, Buffalo.—An entertainment for the benefit of this institution has been arranged by prominent Catholic families of the city to begin to-day and to continue till Monday. Long ago it became apparent to those interested in such things that an accident hospital in the new South Buffalo district was a necessity because of the rapid increase in population and manufacturing enterprises and the establishment of the new steel plant at Stony Point. In times past it has been necessary to bring serious cases to the uptown hospitals, but the delay in reaching the scene of the accident and the generally inadequate service, owing to the distance of the hospital from the point of call, leaves little doubt that an accident hospital nearer this rapidly growing district would be a distinct benefit to those who live and work there. The mother house of the Sisters of Mercy recently was moved to Buffalo from Batavia. Prior to that the sisters had begun the parochial residence of the Holy Family parish, and had the house moved to a point on Tifft Street, about 100 feet from South Park Avenue. It is the intention to equip this dwelling as a modern accident hospital to take care of the sick and wounded in Buffalo's most populous and growing section.

Statement of Mortality in Chicago, Ill., for the Week Ending September 17, 1904, compared with the preceding week and with the corresponding week of 1903. Death rates computed on United States Census Bureau's estimated midyear populations of 1,932,315 for 1904 and of 1,873,880 for 1903:

	Sept. 17, 1904.	Sept. 10, 1904.	Sept. 19. 1903.
Total deaths—all causes	443	443	469
Annual death rate per 1,000	11.98	11.98	13.05
By sexes —			
Males	266	238	280
Females	177	205	189
By ages—			
Under 1 year	116	117	116
Between 1 and 5 years	41	40	43
Over 60 years	79	72	79
Important causes of death—			
Acute intestinal diseases	77	97	77
Apoplexy	10	11	12
Bright's disease	26	28	29
Bronchitis	9	6	5
Consumption	48	49	50
Cancer	18	27	17
Convulsions	10	6	10
Diphtheria	6	7	10
Heart diseases	29	35	32
Measles	0	0	1
Nervous diseases	21	17	19
Pneumonia	34	19	31
Scarlet fever	0	0	1
Suicide	6	8	7
Smallpox	2	0	1
Typhoid fever	7	12	21
Violence (other than suicide)	30	37	32
Whooping cough	0	2	4
All other causes	100	82	109

Included among "all other causes" is one death from rabies, the result of bites of a dog on July 4th, the disease not developing until September 11th—sixty-nine days later—when the patient was removed to hospital and died on the 16th inst. Five cases of smallpox were sent to the Isolation Hospital during the week. One of these, a child 3 years of age, was spirited away by the mother while the inspector was calling the ambulance. The child and mother were not found until Friday, seven days after disappearance. In addition to these cases five, in one family, were found who had recovered at home, supposing the disease to be chickenpox. Up to date three known cases and one death have resulted from these unrecognized cases. Two deaths of hospital patients—the first since July 16th—occurred during the week, one an unvaccinated child 4 years old and the other an unvaccinated schoolgirl, 11 years of age. This girl was in school with a certificate of vaccination dated in 1900 and signed by a doctor, though there was not the slightest evidence of a vaccination. Chief Medical Inspector, Dr. Spalding, says: "This bit of malpractice on the part of the physician who signed the vaccination certificate resulted in the loss of a life. The physician escapes financial responsibility, because he himself has been dead for two years, but is it safe to die with one's name signed to a false certificate? Two other children were sent to the hospital this week who were in school, though they never had been vaccinated. If the doctor will examine the arm before signing the certificate there need be no mistakes made. Do not issue a certificate upon the statement of any one. Examine the arm in every instance, and if there is not a typical scar do not issue a certificate. We never have had a vaccinated child die in the hospital with smallpox. The frequent occurrence of the disease among unvaccinated children under the school age impels us again to call upon parents to have their babies vaccinated. All infants should be vaccinated before they are 6 months old. It is also time now for a close inspection of the new employees in all large factories and mercantile houses. Many new men from the country, who never have been vaccinated, are now employed in the city. This is notably the case in the stock yards district. All the newly acquired men should be examined, and if found unprotected should be vaccinated. Employers should make a certificate of vaccination a requisite to continued employment."

New Jersey State Medical Licentiates.—At the meeting of the New Jersey State Board of Medical Examiners, held at Long Branch, July 5th, the following candidates for a State medical license, who passed the examination at Trenton on June 21st and 22nd, were licensed:

Edward John Beardsley, of Atlantic City; David Fuller Bentley, of Camden; Norman Sinclair Betts, of Philadelphia, Pa.; Louis Nicholas Blank, of Newark; Guy Otis Brewster, of Grantwood; Frank Halstead Brown, of South Amboy; Hayes Joseph Burnett, of Seabright; Charles Lawrence Constantinides, of Newark; Frank Bacon Cook, of Port Norris; Henry Augustus Craig, of New Germantown; Percy Edward Deckard, of Richfield, Pa.; Lawrence Daniel Doyle, of Plainfield; Lancelot Ely, of Dover; James Ferrier, of New York city; Albert Ferdinand Garton, of Philadelphia, Pa.; Samuel Greenberg, of Newark; Isaac Norwood Griscom, of Ocean City; Kenneth Sylvan Guthrie, of Philadelphia, Pa.; Clement Jacob Hailperin, of Newark; Harvey Whesley Hartman, of Elton; Walter P. Havens, of Bradley Beach; Ephraim Clark Hellstern, of Town of Union; Charles Albert Knox, of Newton; William Paul Lamb, of Summit; Charles Jacob Larkey, of Newark; John Joseph Magner, of Hoboken; Harry Ross North, of Pleasantville; Harry Zebulon O'Brien, of Clarksboro; Homer Tomlinson Partree, of Eatontown; Frederick Marshall Paul, of Newark; Charles Blaine Piper, of East Orange; Henry Stanley Riddle, of Manasquan; William Frederick Ridgway, of Atlantic City; Joseph Potter Riggs, of Milton; Walter H. Smith, of Haddonfield; Lester Hevlyn Sparks, of Long Branch; Newton Henry Stein, of Tamaqua, Pa.; Louise Martha Sturtevant, of Atlantic City; Walter Albert Taylor, of Trenton; Henry Woodbridge Thayer, of Netcong; William H. Wells, of Glen Moore; Stephen S. P. Wetmore, of Trenton; Herbert Willis, of Beach Haven. The candidates represented twenty medical colleges located in Boston, New Haven, New York city, Brooklyn, Syracuse, Philadelphia, Baltimore, Washington, Chicago, Toronto, and Naples, Italy. The medical colleges were represented as follows: Jefferson Medical College, 8; Medico-chirurgical College, Pennsylvania, 6; Hahnemann Medical College and Hospital, Pennsylvania, 6; Baltimore Medical College, 5; the University and Bellevue Hospital Medical College, 4; University of Pennsylvania, 3; College of Physicians and Surgeons, Baltimore, 3; Columbia University, 2; Baltimore University, School of Medicine, 2; University of Toronto, 2; University of Naples, 2; Boston University, School of Medicine, 1; Long Island College Hospital, 1; Syracuse University, 1; Woman's Medical College of Pennsylvania, 1; University of Maryland, 1; Howard University, 1; Yale Medical School, 1; Rush Medical College, 1; Illinois Medical College, 1. The following attained the honor roll, or a general average of 90 and upwards: Dr. Louise Martha Sturtevant, A. B. of Wellesley, and M. D. of Boston University School of Medicine, attained 91.6; and Henry Augustus Craig, M. D., of Columbia University, attained 90.7. The following officers were elected for the ensuing year: President, Dr. William H. Shipps, of Bordentown; secretary, Dr. E. L. B. Godfrey, of Camden; treasurer, Dr. Charles A. Groves, of Morristown.

Pith of Current Literature.

PRESSE MEDICALE.

August 31, 1904.

1. Chlorosis and Tuberculosis, By Labbé.
2. Congenital, Diaphragmatic Herniæ, By Plauchu.
3. Actinomycosis of a Finger, By Massaglio.

1. **Chlorosis and Tuberculosis.**—Labbé recalls a favorite paradox of his teacher, Landouzy: I offer a reward for a truly chlorotic patient, who is not tuberculous, syphilitic, nephritic, gastropathic, or attacked with any disease likely to cause anæmia. Symptomatic anæmias, he still maintains, as does his tutor, differ in no way from chlorosis. Of all the causes of an anæmia, likely to give rise to an apparent chlorosis, none is more important or more frequent than tuberculosis. Passing over lightly superficial points of resemblance between chlorosis and tuberculosis, Labbé states that the great majority of women, between 20 and 30 years of age, who come to his clinic with pulmonary tuberculosis, have a decided history of anæmia, which may or may not have disappeared before the tuberculous manifestations. He thinks these patients have had a *larval* state of consumption; a state existing before the appearance of the bacillus. Such a condition is manifest often merely as neurasthenia, polyarthritis, asthma, bronchitis, etc. Many of Labbé's patients, too, come to his clinic as chlorotics, with pulmonary lesions that are improving. Two interesting cases are cited. It would seem as if chlorosis was often simply a manifestation of arrested pulmonary consumption, or, frankly, a symptom of tuberculosis; a mask, it might be said, that tuberculosis assumes at the epoch of puberty in the female. When chlorosis is diagnosticated in a young girl, the latter should be at once treated as if suffering from incipient consumption.

2. **Congenital Diaphragmatic Hernia.**—Plauchu cites several cases of this phenomenon, valueless, as he says, clinically, since it is usually incompatible with life, but interesting from an embryological standpoint as throwing some light on the development of the diaphragm. It is usually accompanied by a marked pulmonary atrophy and a hypertrophy of a lobe of the liver, showing that the hernia exists before the child takes its first breath, which phenomenon has been wrongly cited as ætiological.

September 3, 1904.

1. Epigastric Hernia of the Gastric Mucosa. Pathological Realization of the Stomachus Parvus of Pavlov, By Adenot and Latarjet.
2. Mechanism of Pulmonary Emphysema, By Malibran.
3. Streptococcic and Pneumococcic Malignant Pseudodiphtheritic Angina, By Testevin and Busquet.

1. **Epigastric Hernia.**—Adenot and Latarjet describe a case they consider unique of a stomachal hernia beginning in infancy, but strangulated at its incipiency. The gastric mucosa had opened at the skin, forming a cutaneous mouth. There had been anatomical separation, but physiological continuity of the mucosa for over 20 years forming the "little stomach" that Pavlov caused in dogs. An operation was successful after several remarkable phenomena during the anæsthesia. A complete physiological and histological study of this extraordinary diverticulum is promised by the writers for early publication.

3. **Pseudodiphtheritic Angina.**—Testevin and Busquet summarize their ideas as to treatment of this affection in advising repeated injections of antistreptococcic serum, constant lavage of the nasal and buccal cavities with warm boric acid or potassium permanganate solution, sustaining the heart by injections of caffeine and ether, and keeping up the system with tonics. Isolation of the patient and complete disinfection of his surroundings are also advisable. In fact, treatment should be as careful and rigorous as in genuine diphtheria, when properly diagnosticated.

SEMAINE MEDICALE.

August 24, 1904.

Clinical Forms of Gastric Cancer, By Bard.

Gastric Cancer.—Bard gives an elaborate list of the various kinds of cancer of the stomach, classified from a clinical standpoint. His list would be valueless without his explanations which cannot be satisfactorily summarized.

GAZZETTA DEGLI OSPEDALI E DELLE CLINICHE.

July 10, 1904.

1. Early Occurrence of Acute Ileus After Aseptic Laparotomies, By Dario Maragliano.
2. The Origin of Salivary Calculi, By G. Dal Fabbro.
3. The Presence of the Typhoid Bacillus in the Urine of Typhoid Patients, By G. Corsini.
4. On the Diazo Reaction. By G. Campanella.
5. Ethereal Solution of Iodoform in Chronic Purulent Otitis Media, By V. de Cigna.
6. Notes on Obstetrics, By S. Pascoletti.

1. **Intestinal Obstruction Immediately After Laparotomy.**—Maragliano's report of five cases deals with acute ileus immediately following laparotomy and due to the rapid formation of an exudate and adhesions. The symptoms observed in these cases were not characteristic. The general state of depression following an operation on the abdominal cavity gave way to the typical signs of acute ileus, with malaise, vomiting, rapid pulse, collapse, etc. Mikulicz has well said that when the state of malaise following a laparotomy lasts longer than three days, we may think of an ileus. This ileus may either be mechanical or dynamic in origin. In some cases there is, after laparotomy, simply a state of paralysis of the intestines. In such cases symptoms of intestinal obstruction supervening place the surgeon in a difficult position, as a second interference may make the intestinal paralysis worse. In all cases, internal treatment of a vigorous kind should be instituted before we proceed surgically to relieve the obstruction. In aseptic cases it is well to prevent the occurrence of adhesions by the early

administration of a cathartic. A good drug for producing peristalsis without irritating the intestines is physostigmine, and this has been given systematically at the Augusta Hospital in Berlin after aseptic laparotomies, one milligramme of the salicylate of this alkaloid being injected on the day after the operation.

2. **Origin of Salivary Calculi.**—Dal Fabbro reports three cases of salivary stones which he makes the text for an interesting essay on this subject. He found in all three cases that the ducts had remained patent; that no foreign bodies were present in the stones, but they contained organic material in the central portion. He believes that the causes thus far advanced for the origin of these stones must be regarded as predisposing factors only, and not as true initial causes. The chief cause of these stones is undoubtedly an inflammatory process, produced either by germs or by foreign bodies. There is at first a sialoadenitis, which does not resolve promptly, but leaves an exudate to be absorbed slowly. The residue of this unabsorbed exudate is a dense organic substance, rich in fats and proteids. This becomes the starting point of the stone. Litten has shown that the calcification of tissues takes place in virtue of a change in the composition of the proteids which gain thereby an affinity for chalky salts. The first and essential cause of salivary stones is an inflammatory process which does not completely resolve.

3. **Eberth's Bacillus in the Urine.**—Corsini found the typhoid bacillus in 6 cases out of 21 examined; i. e., in about 28 per cent. The appearance of this germ in the urine is not of grave prognostic import, inasmuch as it has been found in mild cases, as well as in the very severe types. Albumin was found in large amounts in two cases in which the bacillus was in the urine; in four cases of this group, however, albumin was very scanty, and in two it was completely absent. This shows, Corsini thinks, that a nephritis need not necessarily be present when a patient passes typhoid bacilli. The frequency of the presence of this bacillus in the urine of typhoid fever patients is a warning that the urine in this disease should always be disinfected. Those further interested in this subject will find a very extensive bibliography accompanying Corsini's article.

4. **Diazo Reaction.**—Campanella reports a series of interesting experiments with the Ehrlich's diazo reaction. Salol solutions in test tubes give a poorly defined reaction with Ehrlich's reagents. As salol is eliminated in the urine in the form of salicyluric acid, solutions of salicylic acid were tested and found to give a reaction which greatly resembled the diazo reaction in the urine. In healthy persons the urine gave no Ehrlich reaction before they took salol, but after this drug had been taken the urine gave the diazo reaction. It is possible, therefore, that the occurrence of the diazo reaction in typhoid fever, etc., may be due to the ingestion of salol or other intestinal disinfectant. Other experiments showed that the urine contains elements which increase the intensity of the diazo reaction. Urochrome and indican are the most important ones of these, and when they are increased the intensity of the diazo reaction becomes greater. When acetone and diacetic acid are increased the diazo test is also more markedly developed, and Arnold has suggested the use of the same reagents as are contained in Ehrlich's solutions for testing for diacetic acid in the urine.

5. **Iodoform Solutions in the Middle Ear.**—De Cigna found Esmarch's ethereal solution of iodoform exceedingly useful in all forms of purulent otitis media of chronic type, due to "scrofula" or tuberculosis, with torpid granulations and a tenacious mucopurulent secretion. He found that the great advantage of this solution was the ease with which it penetrates through small perforations into the middle ear. Hartmann's cannula should be used for these instillations. The solution is also very useful in many cases of middle ear suppuration with larger perforations and a thick and abundant discharge; in suppurations due to a limited chronic inflammation of the epitympanum; in some cases in which the membrane has been more or less completely destroyed, and in which there are abundant masses of waxy material (cholesteatoma). The solution may also be used in those instances in which iodoform gauze cannot be employed, owing to the idiosyncrasy of the patient, which gives him an eczema of the auricle when such gauze is used.

RIFORMA MEDICA.

July 27, 1904.

1. Experimental Tuberculosis of the Salivary Glands, By P. L. Fiorani.
2. A Case of Myasthenia Treated with Vassale's Paraganglin, By Ercole Galvagni.
3. Gilbert's Treatment for Exudative Pleurisy, By Michele Landolfi.
4. Anomalous Appearance of a Lipoma in the Inguinal Region, By Annibale Costa.

1. **Tuberculosis of the Salivary Gland.**—Fiorani inoculated tubercle bacilli into the salivary glands of animals and found that these glands are infected with great difficulty even when their ducts are obliterated. In 1888 Valuda attempted to produce artificial tuberculosis of the salivary glands, and while he succeeded, his results are doubtful, because he used tubercle bacilli from birds. It has been held that the salivary glands possess some special immunity against tuberculosis, as this affection has been observed clinically in these organs in but very few instances. The present author found that in order to facilitate artificial infection of the glands with tubercle bacilli it is necessary to subject these organs to some traumatism. The infection after these traumatism took place through the excretory duct and never became generalized, but remained circumscribed in the gland itself.

3. **Gilbert's Method of Autoserum Therapy in Pleuritic Effusions.**—Landolfi reports a series of cases of pleurisy with effusion in which he practised autoserum therapy according to Gilbert's method.

The latter consists in withdrawing a certain amount of blood serum from the patient's chest, and injecting it into his circulation. Debove and Rémond first followed out this idea in tuberculous peritonitis and Gilbert took it up for pleurisy. Landolfi concludes from his study of the effects of Gilbert's treatment, as follows: It is possible that the aspiration of the fluid from the chest, which is a part of Gilbert's method, but the injection of this fluid into the blood has no beneficial effect whatever. It is possible that in tuberculous pleurisies the method of Gilbert tends to arrest the process or to prevent its recurrence. It also serves as a diagnostic means in tuberculous cases, and is, above all, accessible to all and entirely harmless. Therefore, this method should be used in all cases of pleurisy with effusion as a part of the treatment.

4. **Lipoma in Inguinal Canal.**—Costa describes the case of a man, aged forty-nine years, who had a tumor of lipomatous character, derived from the great omentum, and appearing in the inguinal region after having passed through the inguinal canal, where it was represented by a pedicle. There was no hernial sac. The case presented unusual clinical interest on account of its rarity and the difficulty in diagnosis. The tumor was hard, slightly movable, of the size of an apple and was situated one finger's breadth externally to the inguinal ring. It was thought to be a chronically enlarged mass of lymph nodes, but the operation showed that it was a lipoma as stated above.

August 3, 1904.

1. Typhæmia (*To be continued*),
By GUGLIELMO MEMMI.
2. Contribution to the Theory of Immunity,
By SALVATORE CAPPELLANI.
3. A Case of Bilateral Otohæmatoma in an Insane Woman,
By TEOFILO MONTAGNINI.

2. **Theories of Immunity.**—Cappellani's investigation concerns itself with the question as to the mode of action of preventive and curative serums, such as diphtheria antitoxines, i. e., whether these substances act simply in virtue of certain antibodies contained in them, or as a result of their influence upon the cells of the body in which they stimulate the production of antitoxic and antibacterial agents. Cappelletti found that when diphtheria bacilli are inoculated into guinea pigs previously immunized with diphtheria antitoxine, the growth of germs obtained is not a normal one, but in the shape of deformed, elongated, and branched rods. This anomalous growth of bacilli was not due directly to the influence of the antitoxine, as was proved by experiments in test tubes, with cultures of the bacillus grown after the addition of antitoxine to the culture medium. The bacilli grown thus did not show any morphological changes.

Guinea pigs were then immunized against diphtheria, and bladders of collodion filled with broth cultures of diphtheria bacilli were then introduced into their peritoneal cavities. The bacilli in these cultures showed the branching and the other changes described, and if the germs were allowed to remain in these bladders long enough, they lost their power of reproduction. These changes did not occur in normal guinea pigs unless the cultures were kept in them for over a month. This is explained by the fact that with the diphtheria culture there was introduced a certain amount of diphtheria toxine, which in time immunized the normal guinea pig.

The changes in the diphtheria bacillus in these experiments were due, the author thinks, to the influence of antibodies circulating in the animal, and which were formed there under the action of the antitoxine. These antibodies are specific, because experiments with the introduction of other germs than Loeffler's bacillus into animals immunized against diphtheria produced negative results.

According to these researches, therefore, the immunity conferred by an antitoxine introduced into an animal, is not a passive one, as Ehrlich called it, for the serum causes the development of antibodies in the immunized organism. Metchnikoff's theory of phagocytosis does not hold good in these cases, as the bacteria were separated from all direct cellular influence by the collodion membranes.

3. **A Case of Bilateral Otohæmatoma in an Insane Woman.**—Montagnini's case occurred in an insane woman, aged forty-eight years. Otohæmatoma is not infrequently seen in the insane, but occurs in soldiers, athletes, "especially among American prize fighters." In the patient referred to the auricles were the seats of prominent hæmatomas which were punctured, and the blood examined. It showed the presence of the *Staphylococcus pyogenes albus*. The author excluded the possibility of traumatism and thought that the affection was infectious in origin.

ROUSSKY VRATCH.

August 7, 1904.

1. Penetrating Wounds of the Abomen with Hernia of the Viscera,
By A. T. MENTSCHINSKY.
2. The Safety of Appliances for the Generation of Formaldehyde Gas,
By V. A. LEVASCHEEF.
3. The Causes of the Complications and Sequelæ of Typhoid Fever on the Basis of Pathological Materials,
By F. Z. OMELTCHENKO.
4. The Removal of a Foreign Body from the Bronchus by Means of Killian's Bronchoscopy,
By K. M. SCHMIDT.
5. The Injection of Microbic Poisons and Antidotes Into the Spinal Fluid as a Method of Experimental Research in Neuropathology (*Concluded*).
By L. S. ARNSTEIN.

1. **Wound of Abdomen With Visceral Hernia. Recovery.**—Mentschinsky reports the case of a girl aged ten years who was accidentally wounded in the abdomen and was transported for ten miles on a farm-wagon, with the viscera protruding through the large wound, which was covered with cotton and roughly bandaged. The patient recovered after the viscera had been replaced, the peritonæum cleaned, and the wound closed and drained. The author discusses the subject of the resistance of the abdominal viscera and regards such cases as this freaks of nature; for it is difficult to understand how recovery takes place after such severe shock and extensive injuries. The record, he says, must be awarded to a Cossack soldier, aged twenty-five years,

whose history is related by Kalinowsky in the Russian *Annals of Surgery.* The entire mass of intestines and a part of the omentum were lying next to the patient, the intestines being covered with dirt, horse manure, and bits of straw, and wrapped in a dirty old rag. The wound was twenty-five centimetres in length, and had been inflicted in the patient's groin by the horn of a steer twelve hours before his admission. The patient was brought to the hospital on a cart drawn by oxen, which had carried him for twenty-five miles, and the intestines had been kept covered with hot water from a teapot all the way. The patient recovered after twelve days.

2. **The Danger of Explosion in Formaldehyde Apparatus.**—Levascheff calls attention to the fact that Fluegge's apparatus for the generation of formaldehyde gas is not as safe as it might be, and tells of an explosion which occurred when the apparatus was full of steam at high pressure. The lid of the instrument is not always securely soldered, and in this instance it came off, the room being flooded with steam and formaldehyde vapor. To prevent this he suggests that a simple pressure manometer be attached to this device, and that provision be made for the escape of steam in case of over pressure. In addition, it would be well to supply an appliance for instantly extinguishing the alcohol flame in case of danger.

3. **Causes of the Complications and Sequelæ of Typhoid.**—Omeltchenko concludes from a study of this subject that the organism of a typhoid fever patient becomes strongly predisposed to septic infection, and that such infections on the soil of a typhoid fever rapidly become generalized. Typhoid fever removes the special susceptibility of some organs to certain germs of infection, and thus renders all organs equally prone to sepsis. The body after typhoid fever is more strongly predisposed to staphylococcus infection than to streptococcus. After typhoid even the slightest septic infection of local character is dangerous, and therefore should be treated promptly.

4. **Removal of a Foreign Body from Left Bronchus.**—Schmidt succeeded in removing a nutshell from the left bronchus in a man who had carried this foreign body there for four months. The foreign body was removed after tracheotomy by introducing one of Killian's bronchoscopic tubes nine millimetres in diameter and illuminating the field with a Casper lamp. The piece of nutshell was taken out with a pair of long forceps.

5. **The Cerebrospinal Fluid as a Means of Experimenting on the Action of Bacterial Poisons.**—Arnstein, in an exhaustive study, presents the possibilities of experiments with injections of various bacterial poisons and antitoxines into the spinal canal. The chief suggestion of his article concerns experiments on the ætiology of syphilis and syphilitic nerve lesions. He recommends the injection of the secretion of a chancre into the spinal canal of monkeys, and also suggests that the blood serum of a syphilitic and the cerebrospinal fluid of a person suffering from syphilis of the nervous system might be injected into these animals. Interesting experiments might be also conducted with injections of the spinal fluid of persons with chorea, rheumatism, etc.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

September 17, 1904.

1. Remarks on Advances in Gynæcology During the Last Year; Senile Endometritis. Chairman's Address, Section on Obstetrics and Diseases of Women, By L. H. Dunning.
2. Arteriosclerosis Due to Lead, By Frank S. Billings.
3. The Relation of Alcohol to Arteriosclerosis, By Richard C. Cabot.
4. Angina Pectoris and Arteriosclerosis, By William Osler.
5. The Treatment of Arteriosclerosis, By J. M. Anders.
6. The Relation of Chest Contour to Lung Capacity, By Francis Frederick Malone.
7. Mathematical Relationships of Certain Chest Measurements, By Winfield S. Hall.
8. A Case of Cortical Hæmorrhage Following Scarlet Fever, By E. E. Southard, and F. R. Sims.
9. The Starvation Operation for Malignancy in the External Carotid Area. Its Failures and Successes, By Robert H. M. Dawbarn.
10. The Influence of Adipose Tissue with Regard to the Pathology of the Knee Joint, By A. Hoffa.
11. Twine in Lieu of the Elastic Ligature in Performing Gastroenterostomy, By J. W. Draper Maury.
12. The Defects of the Murphy Button, with Suggestions of Improvements in the Operation of Gastroenterostomy, By Robert F. Weir.
13. Excision of the Ulcer Bearing Area in Gastric Ulcer, By William L. Rodman.
14. Boric Acid Poisoning. Report of a Fatal Case with Autopsy, By Charles L. Best.
15. A Method of Dispensing with Rubber Gloves and the Adhesive Rubber Dam. Second Communication, By John B. Murphy.
16. The United States Public Health and Marine Hospital Service. Part II. The Service as it is To-day (*Continued*).
17. Travel Notes. IX. A Winter Semester, By Llewellys F. Baker.

1. See this *Journal,* Vol. LXXIX, page 1168.

2, 3, and 4. See this *Journal,* Vol. LXXIX, page 12-17.

5. See this *Journal,* Vol. LXXIX, page 1257.

9. See this *Journal,* Vol. LXXIX, page 1171.

10. See this *Journal,* Vol. LXXIX, page 1172.

11, 12, and 13. See this *Journal,* Vol. LXXIX, page 1218.

14. **Boric Acid Poisoning.**—Best asserts that, including his own case, there are on record six cases of severe boric acid intoxication, five of which resulted fatally. In all these cases the drug was applied either to wound surfaces or to mucous membranes. In the author's case six ounces of boric acid were placed in an inguinal abscess and the wound closed. The following symptoms developed: "On the evening of the third day a diffuse erythematous and slightly papular rash appeared on the neck, chest and shoulders, with a

distinct line of demarcation at the clavicle. The following day a more diffuse papular rash appeared on the back and thighs. There was no pustule formation. The skin about the operation wound was red. On August 20th, 1 a. m., there was marked cyanosis, a clammy sweat, cold feet, weak, irregular pulse and uncontrollable vomiting. Delirium set in during the last few hours before death. The patient died at 7 a. m., August 20, 1903. The rash was still visible. The temperature had increased with slight remissions from 98.4 on admission to 100.8, with a fall of 0.6 just before death. The pulse increased from 68 on admission to 138, with a decrease of 12 just before death. Respiration on admission was 16, which increased to 38 just prior to death." An autopsy was obtained and it seemed to show that all ordinary causes of death might be excluded.

15. **Dispensing With Rubber Gloves.**—Murphy presents a second communication on his method of covering the hands and the field of operation with a thin film of rubber. The author has completed a number of practical experiments for the purpose of determining the value of this new method as compared with the rubber glove and adhesive dam method. He concludes: "The experiments carried out thus far show that the solution, while not so perfect a protection to the patient as intact gloves, is infinitely superior to the bare hands, and is equal to or superior to the glove, considering the chances of puncture."

BOSTON MEDICAL AND SURGICAL JOURNAL.

September 15, 1904.

1. Obstructive Renal Retention with Anuria, and Its Treatment, By FRANCIS S. WATSON.
2. Remarks Upon the General Principles of Management of Pulmonary Tuberculosis, By S. G. BONNEY.
3. The Gynæcological Aspect of Mental Overstrain at Puberty. and Its Influence on Development, By WILLIAM EDGAR DARNALL

1. **Renal Obstruction.**—Watson has collected 205 cases of obstructive renal retention with anuria. One hundred and ten of these cases were treated expectantly. There were thirty recoveries and eighty deaths. Ninety-five cases were treated by operation; with twenty-six recoveries and thirteen deaths. In all the cases studied by the author the anuria was complete. In the majority of the cases in which recovery took place the anuria lasted from five to seven days. In forty-two of the fatal cases the duration of the anuria was, in the majority, of from five to eight days. In this series the longest period of anuria was twenty-three days. The author discusses some of the disputed points relating to kidney obstruction and analyzes the cases he has collected. With regard to treatment he holds that the following conclusion seems inevitable: "That in every case in which the obstruction has not been relieved by the end of the first forty-eight hours at most, operation should be performed. If uræmic symptoms should appear before that time, operation should be done at once."

2. **Tuberculosis.**—Bonney thinks it strange that while most authorities are agreed as to the general methods for the treatment of tuberculosis, there should be such wide divergence in the practical methods employed. These differences are possibly due to personal bias which makes some of the important elements of treatment stand out as of greater importance than others. So, some emphasize outdoor life, or rest, or superalimentation, and the one pet factor overshadows the other important elements of treatment. The author gives in detail his own ideas of management which require the closed sanatorium system applied with judgment and liberality.

3. **Mental Overstrain at Puberty.**—Darnall asserts that modern methods of education are responsible for wrecking many a woman's life. He points out what he holds are the worst features of the present system. The general spirit of the paper may be judged by its last paragraph: "Not until teachers and parents remember that health is more important than knowledge; not until schools realize the futility of the forcing process of education, and guard the health of their girls by diminishing rather than increasing the work of the pubescent period; not until they appreciate more fully that a sound mind depends upon a sound body, can we hope to diminish the pitiable army of suffering neurotics and sexual incompetents, who so largely constitute the womanhood of the land, and who are to be the mothers of the men of our country."

AMERICAN MEDICINE

September 17, 1904.

1. Intermittent Lameness and Other Nervous Symptoms of Peripheral Arterial Disease, By CHARLES W. BURR
2. The Röntgen Rays in Injuries Near the Wrist, By M. I. WILBERT.
3. Eyestrain as a Causative Factor in Sinusitis, By WILLIAM LINTON PHILLIPS.
4. Administration of Chloroform and Ether: Comparative Notes of the Two Drugs, By THOMAS J. STRONG.
5. Traumatic Emphysema of the Orbit and Lids, By HOWARD F. HANSELL.
6. Contraction of the Neck of the Bladder, By THOMAS GRANT YOUMANS.
7. Sand Filters and Typhoid Fever in Poughkeepsie, By FREDERICK J. MANN.

1. **Intermittent Lameness.**—Burr reports one case of intermittent lameness due to peripheral obliterating endarteritis. The author summarizes a typical case of this affection as follows: The patient, while walking, is seized with pain or numbness, localized or diffuse, in one or both legs, and at the same time there is a feeling of stiffness, or even distinct cramp, in the calves or thighs. If the patient sits down relief comes quickly, but very soon after beginning to walk again the symptoms return, and soon he is unable to walk at all, not only on account of pain, but also because of muscular disability. If now the patient be examined, the arteries in the feet, and it may be even the femorals, will be found pulseless, the arterial walls will be felt to be distinctly thickened, and the feet may be warm, cold, or normal in temperature, and red, or cyanosed, or natural in color. The most striking thing

is the absence of the pulse in the member or members affected. The duration of an attack varies from minutes to hours. They come on almost always during muscular exertion. The legs are much more frequently affected than the arms. Very rarely the arm and leg of the same side are seized almost simultaneously, producing a condition superficially resembling a transient cerebral hemiplegia. Occasionally only one arm is affected. The condition is not to be confounded with the chronic nonparoxysmal manifestations of general arteriosclerosis.

2. **Injuries Near the Wrist.**—Wilbert analyzes 660 fractures of the wrist that have been treated at the German Hospital, Philadelphia, during the past seven years. By means of diagrams taken from x ray pictures he emphasizes the fact that fractures at or near the wrist vary very considerably in location and direction, as well as in the nature and extent of the accompanying injuries.

3. **Sinusitis Due to Eyestrain.**—Phillips reports ten cases to show that some forms of sinusitis are due to eyestrain. He also attempts to show by what mechanism the sinusitis is brought about. The last two paragraphs of the paper are: "As I have said before, I do not think that all forms of accessory sinusitis are due to eyestrain, but I do think that eyestrain holds an important place in the production and maintenance of this condition. In conclusion, I would say that, although I did not use or allow to be used any treatment for the relief of frontal sinusitis, other than glasses, I nevertheless do think and advise that the condition should be treated locally, in addition to correction of any eyestrain which may be present."

4. **Chloroform and Ether.**—Strong has given ether 333 and chloroform 436 times. He has had no deaths. He believes his experience is "large enough to establish facts" and as besides he agrees with Hare, Thornton, and other well known authorities he does not hesitate to announce his conviction that "chloroform anæsthesia is as easy to produce and maintain and is as safe to the patient as is anæsthesia with ether."

6. **Contraction of the Neck of the Bladder.**—Youmans reports three cases of contraction of the neck of the bladder. The symptoms of this condition are often obscure. The most suggestive symptoms are: Pain; frequency and urgency of urination—more especially at night; difficult urination; dribbling from irritation or overflow. In chronic cases the force of the stream is diminished, and in many instances complete retention occurs. Examination per rectum reveals nothing peculiar to the condition. Since the calibre of the contraction corresponds closely to that of the urethra, its presence cannot be detected by the passage of a good sized sound. A cystoscopic view of the bladder should be taken whenever possible. The symptoms of contraction oftentimes resemble those of stone in the bladder, although these conditions may coexist. Treatment consists, first, in removal of the primary exciting cause. In the milder grades, rupturing the fibres with the finger, introduced through perineal incision, usually suffices. In chronic cases it is impossible to do this, and it therefore becomes necessary to divide the contraction with a knife or with the galvanocautery, introduced through a perineal incision. It is important to make the division in the median line and on the posterior border of the vesical orifice. In cases in which the Bottini instrument can be introduced, it may be employed. The author, however, prefers Wishard's incisor.

MEDICAL RECORD.

September 17, 1904.

1. Malignant Disease of the Larynx, By D. Bryson Delavan.
2. Posttyphoid Perichondritis of the Larynx, By Emil Mayer.
3. The Treatment of Pulmonary Hæmorrhage, By W. B. McLaughlin.
4. Non-operative Treatment of Trachoma, By Frank Judson Parker.
5. Malaria, By R. Cadwallader.
6. Practical Hygiene in the Public Schools By Roswell S. Wilcox.

1. **Malignant Disease of the Larynx.**—Delavan attempts to indicate the progress that has recently been made in the study of malignant disease of the larynx, and to call attention to various modes of treatment. These methods are: (1) Internal medication; (2) Antitoxines; (3) Liquid air; (4) Ligation of the carotids; (5) The x ray; (6) The ultraviolet and the high frequency rays; (7) Radium; (8) Surgical methods: (*a*) endolaryngeal, (*b*) extralaryngeal. In the present state of our knowledge early radical operation offers the only reliable prospect of cure. Therefore early diagnosis is imperatively demanded.

2. **Perichondritis.**—Mayer reports the following case: Woman, about three and one half months after typhoid fever, developed urgent dyspnœa. Tracheotomy was performed and two months later gradual dilatation by Schrotter's tubes. About one month later intubation followed with the O'Dwyer tube. This tube was worn almost continuously for five months. The patient was cured.

3. **Pulmonary Hæmorrhage.** — McLaughlin recommends the following line of treatment for pulmonary hæmorrhage due to tuberculosis: (1) Morphine, grain one-quarter, by hypodermic injection. (2) Strapping of side from which the blood comes with adhesive plaster. (3) Removal of the patient to the open air. Four days after the hæmorrhage has ceased the straps are removed and the out of door treatment is continued for one week more. The author's experience with the method he suggests is limited to seven cases.

4. **Trachoma**—Parker sums up his advice for the treatment of trachoma as follows: Surgical treatment should be advised only in those cases in which soft frog's spawn granulations are present. It should always be followed by after treatment. Operation should not be performed in cases in which the hard, deep seated granulations are present, on account of the injury done to the

conjunctiva in removing them. The habits and general condition of the patient are very important features to consider in preventing spread and effecting cure. The non-operative treatment is bichloride rubbing, with the use of one of the organic silver solutions night and morning. In the hard variety, the use of copper sulphate and the silver solution.

5. **Malaria.**—Cadwallader has, what he calls, his "hydræmia theory" to account for the virulence of malaria. It is this: That a prerequisite to infection, or at least to symptoms, of malaria is a watery condition of the blood, and just in proportion to the total fluid in the body will be the severity of the disease. The author believes that infection is carried by the mosquito, and that the disease is due to the specific plasmodium. His theory, then, concerns the "soil" alone.

MEDICAL NEWS.

September 17, 1904.

1. Polyuria in Typhoid Fever, By M. H. FUSSELL, H. S. CARMANY, and H. HUDSON.
2. Treatment of Acute Middle Ear Disease, By JOHN A. DONOVAN.
3. The Value of Early Incision of the Membrana Tympani in the Treatment of Acute Suppuration of the Middle Ear, By FRANCIS R. PACKARD
4. Contributions to the Pathology and Treatment of Acute Gonorrhœa. By LUDWIG WEISS.
5. The Diagnosis of Incipient Pulmonary Tuberculosis, By GEORGE WILLIAM NORRIS.
6. Diagnosis of Advanced Tuberculosis. By FRANK A. CRAIG.
7. Diagnosis Between Pulmonary Tuberculosis and Conditions Resembling It . . By H. R. M. LANDIS.
8. History Taking in Cases of Pulmonary Tuberculosis, By CHARLES J. HATFIELD.

1. **Polyuria in Typhoid.**—Fussell, Carmany, and Hudson report one case of polyuria during typhoid fever which differs from all of the cases of polyuria in typhoid fever mentioned by writers, in the fact that the polyuria began suddenly in the second week of the disease, and that the urine was greatest in amount during the height of the fever, and declined as convalescence began, and when convalescence was established the urine was absolutely normal in quantity and in character. The authors review the literature of the subject and conclude: (1) That the urine during the course of typhoid fever is usually of high specific gravity and in amount below 1,500 c. c. in twenty-four hours. (2) In convalescence the amount of urine may rise in a small percentage of cases to 2,000, or even to 10,000 c. c. in twenty-four hours. (3) That in very rare cases there may be at times polyuria of from 3,000 to 8,000 c. c. in the twenty-four hours during the entire course of the disease.

2. **Acute Middle Ear Disease.**—Donovan summarizes his advice for the treatment of acute middle ear disease thus: (1) In all diseases affecting the nasopharynx, always use reasonable precautions to avoid tubal infections. (2) Adenoid tissue, in any amount, and tonsils producing any pathological symptoms, should always be removed. (3) With the first symptoms of earache, use heat and dehydrating remedies; this not producing beneficial results in a few hours, treat surgically. (4) When possible, with a catheter use a mild continuous stream of hot air early, and repeat in eight or ten hours. (5) If symptoms are not relieved by these methods within ten to twenty-four hours, make free incision through the entire drum, or extend into upper canal wall if necessary. Use aseptic gauze drainage and outside pad for absorption. (6) Never under any conditions allow the patient to suffer tortures for more than forty-eight hours and remain exposed to the risks of complications.

3. **Acute Suppuration of the Middle Ear.**—Packard emphasizes two points: (1) The great value of early incision of the membrana tympani; (2) the many advantages of the so called dry method for the after treatment.

5, 6, 7, 8. **Tuberculosis.**—There is nothing new in any of these four papers. They all insist on the importance of an early diagnosis and deplore the fact that the general practitioner is either too careless or too incapable.

LANCET.

September 10, 1904.

1. The Anatomy of Study, By A. MACPHAIL.
2. Human Piroplasmosis, By C. DONOVAN.
3. Epibulbar Melanotic Sarcoma, By J. G. CLEGG, and I. W. HALL.
4. On Ruptured Urethra: Its Treatment by Combined Drainage (Suprapubic and *per Urethram*), By H. RUTHERFURD.
5. A Case of Pseudoleucæmia (Lymphosarcoma) in a Young Child, By J. J. REDFERN, and W. HUNTER.
6. Tender Spots on the Spine in Relation to Pain in Various Parts of the Body, By ST. C. B. SHADWELL.
7. A Case of Rupture of the Uterus During Labor; Laparotomy; Recovery of Mother and Child, By E. DOWN.
8. On a Case of Tumor of the *Centrum Ovale* with Cerebellar Symptoms. With Remarks on the Difficulties of Diagnosis, By W. L. ASCHERSON.
9. The Treatment of Rectal Prolapse by the Submucous Injection of Paraffin, By A. H. BURGESS.
10. Cases of Appendicitis, with Perforating Duodenal and Gastric Ulcer, By H. A. LEDIARD, and R. E. SEDGWICK.
11. The Evolution of Man's Diet. I, By H. CAMPBELL.

2. **Piroplasmosis.**—Donovan describes the disease caused by the sporozoon parasite, classified by Laveran as Piroplasma and named after the author (Donovan-Leishman body). He had noticed many cases of chronic irregular pyrexia, with enlargement of the spleen and occasionally of the liver, bronchitis, œdema of the feet, subcutaneous hæmorrhages, chiefly petechial, dysenteric diarrhœa, and cancrum oris. Treatment was unsatisfactory and malarial parasites were absent. On examination of the spleen, blood from fatal cases in April, 1903, he found numerous ring like little bodies, with bipolar masses of chromatin. These bodies were first described in print in June, 1903, by Leishman, who took them to be degenerated trypanosomata. The author was the first to suggest that they were a new organism, and the cause of a

distinct disease resembling, if not identical with, Kalaazar. In the peripheral blood the parasites are of a different form, very rarely found, and only when the temperature is high, between 103° and 104° F. They have been found in skin ulcers of patients suffering from this disease. The temperature is at first markedly intermittent: later it takes on a hectic type with night sweats. When any complication is present it is continuous. Splenic enlargement is very constant, but not very great: it may vary marvelously in a few days. Diarrhœa is present in fifty per cent. of the cases, and the large intestines are often the seat of ulcers, which may cause death by perforation and the resultant peritonitis. Skin eruptions are common: small ulcers, petechial hæmorrhages, and pigmentation. Œdema of the feet and bronchitis are very constant symptoms. There is well marked anæmia, but no leucocytosis. The urine contains albumin and invariably pigment. Postmortem, there is found an enlarged pigmented or unpigmented spleen: the liver is enlarged, congested, or cirrhosed; and the intestines are deeply congested, inflamed, or ulcerated. Details are given of the necropsies in nine cases. The article is accompanied by excellent colored illustrations of the organism as found in the spleen and in the peripheral blood.

5. **Pseudoleucæmia.**—Redfern reports a case of pseudoleucæmia or lymphosarcoma occurring in a girl aged two years and nine months. The illness began with enlargement of the glands on the left side of the neck, following which the axillary and mediastinal glands became involved. Dyspnœa set in and grew steadily worse, the child dying after about eight weeks' illness. Hunter states that the case is the earliest and most acute that has come under his notice. The cases of pseudoleucæmia, recorded as running an acute course, have all occurred in children under fifteen years of age and in duration varied from eleven days to four months. Although the patients are quite pale, yet the anæmia is remarkably slight. The leucocytes are usually normal or diminished in number and there is a tendency towards relative lymphocytosis. In this case the red corpuscles were 4,000,000, and the leucocytes 8,000 per cubic millimetre, the lymphocytes making up 20 per cent. of the latter.

6. **Tender Spine.**—Shadwell states that in many cases where the patients complain of pain in various regions of the body (pleurodynia, intercostal neuralgia, false angina, ovarian neuralgia, gastrodynia, etc., etc.), well marked tender spots can be found along the spine at the point of origin of the spinal nerves supplying the region of the body in which pain is complained of. By treating these tender spots on the spine, complete, immediate, and permanent relief is the result. The writer cites ten illustrative cases, in which relief was obtained by the use of blisters, tincture of iodine, etc., applied along the spine. In this class of cases the patients never complain of pain in the spine, and will often protest against examination.

9. **Paraffin Injection for Rectal Prolapse.**—Burgess has utilized the submucous injection of paraffin in eighteen cases of prolapsus recti and one of prolapsus recti associated with incontinence. He uses a paraffin which comes already sterilized in small bottles, and has a melting point of 111° F. The syringe is covered with rubber, but no other special means of keeping it or the needle hot is used. The mucous membrane of the bowel is drawn out by means of forceps until it takes a triangular shape, and two or three cubic centimetres of paraffin are injected into the middle of each side of the triangle. This is done at the apex of the prolapse: two more such doses are injected, the last being close to the anus. The patient is kept in bed four or five days. The result of the operation has been extremely satisfactory in all the author's cases, not a single instance of redescent of the prolapse having occurred. Paraffin injection has the following advantages over other methods of treating prolapse of the rectum: (1) It is a simpler procedure and can be more rapidly performed. (2) It entails practically no risk to life. (3) No prolonged after treatment is required, merely keeping the patient in bed for a few days. (4) The benefit obtained is apparent immediately, the paraffin is set, and does not depend upon any subsequent vital phenomena, nor does it make any demand upon the reparative powers of the patient. (5) It offers a much greater probability of a permanent cure. (6) Even should it fail, the patient's condition is no worse than before and the procedure may be repeated.

BRITISH MEDICAL JOURNAL.

September 10, 1904.

(Seventy-second Annual Meeting of the British Medical Association.)

Section of Pathology.

1. Discussion on Immunity,
By J. Ritchie, W. Bullock, G. Dreyer, and Others.
2. Discussion on the Rôle of the Lymphocyte,
By G. L. Gulland, R. Muir, J. M. Beattie, and Others.

1. **Immunity.**—Ritchie opens the discussion with a general review of the subject of immunity, touching especially on the points as to which various observers are not in harmony. He calls attention to three pieces of work published during the last fifteen months, which form the points of departure for new lines of inquiry. These are: (1) The observations of Meyer and Ransome as to the fact that tetanus toxines reach the nerve cells by means of the motor axones only, and that antitoxines are probably not formed in the nerve cells: (2) Muir's work on hæmolysis, and the deduction therefrom that an exchange of molecules can take place between cells when these cells are merely in contact with each other; and (3) the work of Wright and Douglas on the part played by the act of the ingestion of bacteria by cells in the killing of these bacteria.

Bullock review the work done as to the origin of antitoxines and other protective substances, and states that it is most difficult to draw any accurate conclusions, the literature of the subject being most contradictory. The existence of alexines is undoubted, but their origin is unknown, and it is not even settled whether or not they occur in the blood plasma. It is not certain that cystoses exist in Metchnikoff's sense, and it is very improbable that alexine acts like a digestive ferment. It is not proved that leucocytes secrete alexine, although it is probable that they do. Together with Atain the author has worked at the question of opsonic immunity. Opsonin is that substance in blood serum which acts in some way on the bacteria, rendering them suitable prey for the phagocytes. Thousands of facts point to the conclusion that our leucocytic forming tissues are our great defensive organs against parasitic invasions. Madsen gives an exposition of the question of the interaction between toxines and antitoxines in the light of physical chemistry. Martin speaks of the work done with snake venoms. The toxicity of the most powerful venoms far exceeds that of the most potent alkaloidal poisons known. Nearly all venoms contain a neurotoxine and the rapidly fatal action of some venoms is due either to this constituent, causing respiratory paralysis, or to the action of the fibrin ferment producing intravascular clotting. The results of researches with snake poisons have taken no mean part in contributing the materials out of which the fertile imagination of Ehrlich has produced the doctrine of immunity. Muir discusses immunity under the following heads: (1) The nature of the combination of antisubstances; (2) the constitution and mode of action of complements; and (3) the combining relationships of receptor, immune body, and complement. Noguchi, from his work on snake venoms, draws the following conclusions: 1. The action of antivenenes is highly, if not strictly, specific, both *in vitro* and *in vivo,* therefore only the specific antivenene must be used in the treatment of venom poisoning. 2. The relation between the antitoxic and the antihæmolytic powers of an antivenene is quite variable. The strength of the one cannot be determined by estimating separately the other constituent of the antivenene. 3. The anticrotalus and the antimoccasin serums possess a very great therapeutic value. They can cure animals in critical stages of poisoning. Ruffer gives an account of the effect produced upon the blood by the injection of urine and bile.

2. **Lymphocytes.**—Gulland discusses the nature, relations, origin, and functions of the lymphocytes of the blood. He holds that lymphocytes, mononuclears, and transitional forms are merely stages in the development of one type, and that there is no relation between the transitionals and the polymorphs. He takes up and refutes *seriatim* the assigned reasons for the distinction between lymphocytes, mononuclears, and transitionals. These are: (1) The cytoplasm of transitionals is not so basophile; (2) the nucleus of the mononuclears is relatively smaller and of the transitionals differently shaped; (3) the presence of granules in the transitionals; and (4) the larger size of both mononuclears and transitionals. Lymphocytes are formed in lymph glands and in the lymphatic tissue of the tonsils, intestines, spleen, etc. They are largely protective, especially when present in lymph glands. Muir summarizes his views in regard to the nongranular cells of the blood by saying that on the one hand we have the class of lymphocytes, the hyaline leucocytes being the larger forms of these, whose site of production is lymphoid tissue. On the other hand non-granular cells, with great phagocytic activity may be derived from fixed cells, especially from endothelial cells and their homologues. Drysdale discusses the clinical significance of lymphocytosis, by which is meant an increase beyond the limits observed in health of the absolute number of lymphocytes in the circulating blood. During digestion and infancy there is such an increase, due probably to a physiologically greater activity of the lymphocytic tissue. In lymphatic leucæmia there is a pathological change in the same direction. It is also possible that a lymphocytosis in a given case may be due to a mechanical washing away of the cells, by an increased lymph flow, or the process of chemiotaxis may play a part. But in most cases we are unable even tentatively to explain the phenomenon. Ferguson has studied the blood in smallpox, and concludes: (1) There is in smallpox an excessive production of cells of the lymphocyte and smaller hyaline class. These are found in very high proportions in the blood and in the skin. In the latter situation they form a notable constituent of the exudation in the earlier stages of the eruption. In the blood, however, they reach their highest proportions after the virus has presumably left the blood to enter the skin. 2. These changes are always accompanied by considerable activity of the lymphocyte producing tissues throughout the body. The subcortical lymphoid follicles of the lymphatic glands are chiefly concerned in this process. Cells of the neutrophile class undergo a progressive diminution relatively, any initial activity on the part of the bone narrow being replaced by passivity or even by destruction of the leucoplastic elements.

Houston's contribution to the discussion may be summed up as follows: 1. All the cells of the lymphocyte group, both typical lymphocytes and large mononuclears, have their origin in the lymphatic tissues generally. 2. The large mononuclear cells are undoubtedly amœboid and phagocytic. 3. There is evidence that even the lymphocytes have some degree of motility. 4. The clinical resemblance of leucæmia to septic processes has often been noticed. 5. Just as sepsis in a child produces a lymphocytosis, so leucæmias of early life are chiefly of the lymphatic type. MacCallum states that in typhoid fever the substances produced by the typhoid bacillus exert a positive chemiotactic influence upon the lymphoid cells which wander out of the blood vessels and from the lymphoid tissues, far and wide, into the adjacent tissues. They are derived in part from the lymphoid cells of the marrow, in part from the lymphoid tissues elsewhere. They undergo an alteration and growth on reaching the tissues, and act as phagocytes. Many of them are injured and are then taken up by larger phagocytic cells. In all the lesions of typhoid fever the lymphocyte plays an active, rather than a passive rôle. Moorhead's studies of leucæmia have led to the following conclusions: 1. After precipitation with alcohol, a substance can be extracted from leucæmia lymph glands by saline solution, which produces a marked fall of blood pressure in rabbits. This depressor substance is not a constituent of ordinary lymphoid tissue. 2. This depressor substance is possibly a specific toxine because continued injection of the extract containing it produced marked changes in the hæmopoietic tissues in rabbits; changes not confined to any one of these tissues but involving them all.

MISCELLANEOUS

A Contribution on Paget's Disease is made by J. Fabry and H. Trautmann, to *Archiv f. Dermat. u. Syph.,* for March, 1904. The contribution is based on a case of Paget's disease which occurred in Fabry's clinic at Dortmund. The patient was an elderly woman, and the disease affected her left breast. It began when she was thirty-six years of age, about the nipple, and as it evolved it gradually presented the characteristics of this malady. After thirty years malignant changes supervened, and the whole breast as well as the glands in the left axillæ became carcinomatous, and in consequence the breast had to be amputated and the diseased glands excised. A microscopical examination was made of the tissue from the breast and glands, and a bacteriological examination was carried out. Fabry concludes that Paget's disease is an entity which differs not only from chronic eczema but also from ordinary epithelioma. He considers that the chronic changes which occur in the epidermis and the upper layers of the corium form a suitable soil for malignant growth to take place. The microscopical characters of the affected skin were similar to those which have been described repeatedly. The chief point of interest in connection with the case was that they isolated from the diseased skin a vegetable fungus of the nature of a yeast. This they did not consider to be a secondary contamination, but to be the cause of the disease. It was present not only in the skin of the breast but also in the axillary glands. The organism was in the form of a single cell or a cluster of cells. It was round or oval in shape, with a hyaline or granular centre, and varied in size from that of a red blood corpuscle or even a leucocyte to half their size. The fungus readily grew on the ordinary cultivation media, and it was pathogenic to white mice. A guinea pig in which 1 cm. of a pure culture was injected into the nipple died ten days later of enteritis, but presented a tumor at the site of inoculation which, microscopically, was a connective tissue growth with a dense, small celled infiltration, and in it the fungus was found. The writer suggests a possible relationship between Paget's disease and blastomycetic dermatitis.

Bacteriology of the Conjunctivitis of Measles.—This is the subject of an investigation by Dr. Schottelius, of Freiburg (*Klin. Monatsbl. f. Augenheilk,* June, 1904). Attempts to find out whether any specific organism is to be found in the conjunctival secretion during an attack of measles have yielded negative results. In some cases of severe secondary conjunctivitis complicating measles, a bacillus allied to, or identical with, the influenza bacillus, has been identified in the secretion. The cases observed by Dr. Schottelius occurred during a severe epidemic in Freiburg in 1903-04. The epidemic seems to have been one of very unusual severity, cultures having been made from no less than forty fatal cases. These are compared with cultures from forty cases which recovered. In the cases which recovered, staphylococcus aureus was found in 60 per cent., and a streptococcus in 14 per cent. In the fatal cases, streptococci were found in 50 per cent. Commenting on this paper, Professor Axenfeld, in whose laboratory the investigations were made, says that, though of course the organisms in question are not the cause of measles, still the presence of streptococci probably stands in close relation to the severity of the disease. In this epidemic a number of very severe eye complications were observed, *e. g.,* two cases of severe diphtheritic conjunctivitis, one of which ended fatally, also a case of metastatic purulent iritis. Cultures from the diphtheritic cases showed large quantities of streptococci as well as diphtheria bacilli.

A Case of a Pustulopapular Syphilide of the So Called Varioloid Type.—Dr. Arthur Shillitoe contributes a description of a varioloid type of luetic eruption to the August number of the *British Journal of Dermatology.* He says before the history was known, it was thought to be a well marked case of smallpox. The present case gave the following history: The patient was a well nourished man, twenty years of age, a warehouseman by trade, whose height was 5 ft. 3 in., and weight 113 lbs. There was nothing in the family history bearing on the question, and with the exception of an attack of gonorrhœa four years before, he had no recollection of ever having been ill.

Early in February of the present year, he noticed a sore on the inner surface of the prepuce, this date being about one month after the last exposure to contagion. He consulted no one till March 21st, when finding he could not retract the prepuce, he attended a hospital, where he was given a lotion to thoroughly irrigate the part. On April 23rd, a general eruption appeared together with a sore throat. His people, fearing that he had something infectious, refused to allow him to stay at home; he went to the Union, from which institution he was transferred to the Lock Hospital. On admission he was obviously ill, almost too much so for purposes of exhibition, and it was extremely difficult to obtain any straightforward history from him. The body was almost entirely covered with a marked papular eruption with the exception of the cheeks and oral region, both wrists and hands, the scrotofemoral regions, and the lower half of the dorsa of both feet. Thickly scattered between the papules was a very large number of pustules, many of them, especially on the back, showing umbilication. Each pustule was about the size of a large hemp seed, and was surrounded by a deep red areola without any marked basal thickening.

Taylor, of New York, says: "These pustules have no tendency to a follicular origin, but are found on parts where the skin is soft and delicate." Further he states that "it is rarely the first eruption in syphilis. The mode of invasion is slow, beginning on the face and spreading over the body in two or three weeks." In this case the eruption was apparently the first symptom which frightened the boy, and the mode of invasion was very rapid, having spread between April 23rd and 26th over the whole of the body. Mr. Hutchinson quotes an example where there was, as in this case, marked febrile disturbance, which Taylor thinks is not usual. Bangs and Hardaway point out that when these lesions occur in the early secondary stages as a general eruption, they may be accompanied by a marked febrile disturbance, which is higher than in any other form of syphilis, and pyogenic organisms undoubtedly play an important rôle in causing it. The manner in which the eruption avoided the exposed parts, the face, wrists, and hands, so often the seat of a smallpox eruption, was very noticeable.

Ovarian Cystoma Papillary Carcinoma Ruptured Into the Peritoneal Cavity.—Gulielmo Levi (*Archivio di Ostetricia e Ginecologia*) records a case of ovarian cystoma that had ruptured into the peritoneal cavity, and had been degenerated into a papillary carcinoma and involved the intestine. The patient was a young woman, married, but never pregnant. Her health had always been good. The first symptoms were enlargement of the abdomen, accompanied by intestinal symptoms, for which she was treated unsuccessfully almost up to the time of the operation. She had pain in the abdomen, and abundant leucorrhœa. The abdomen was enlarged to the size of a seven months' pregnancy, more to the left side. There was free ascitic fluid in the abdomen. No symptoms of rupture of the cyst had at any time been noted by the patient. At the operation it was found that both ovaries were the seat of adenocarcinoma. There was also a large mass in the back of the abdomen attached to the intestines that appeared to consist of material that had escaped from one of the ovarian cysts, and had then degenerated into carcinoma. The growth recurred six months after operation.

Spring Catarrh.—A contribution to the pathological anatomy of spring catarrh, by Dr. F. Schieck, of Göttingen (*v. Graefe's Archiv. für Ophth.*, lviii, 1). After discussing the views of others, Dr. Schieck gives an account of the microscopical appearances of the excised conjunctiva and tarsus in a typical case of spring catarrh. As the result of his investigations he comes to the definite opinion that the primary changes in spring catarrh are not epithelial. He found in the positions where the disease was most recent that epithelial changes had not begun while cell proliferation in the subepithelial connective tissue was very evident. The changes in the epithelium appeared to be only secondary, and only occurred after the cellular infiltration of the substantia propria had reached a certain intensity. A pronounced increase of the connective tissue cells and hyperplasia of the fibres was noted, causing thickening of the substantia propria. These changes were best seen over the tarsus. As soon as the sharp line between tarsus and substantia propria becomes indistinct from cellular infiltration, the elastic fibres in the tarsus appear radiating outwards towards the free surface, and contributing largely to the subepithelial thickening. A glassy degeneration of the newly formed elastic fibrillæ ultimately takes place, and in the developed nodules is accompanied by a diminution in the number of nuclei present. The changes in the epithelium, and in particular, the sending of processes into the deeper layers, Dr. Schieck considers strictly comparable to the changes usually seen in epithelium when pressed outward by subjacent growth of connective tissue. The localization of the disease to the regions of the tarsus and the limbus may, he thinks, be due to the increased amount of subconjunctival elastic tissue in these regions. Attempts to stain organisms met with no success.

Letter to the Editor.

THE STANDING OF PHILADELPHIA'S MEDICAL SCHOOLS.

PHILADELPHIA, *September* 19, 1904.

To the Editor,

Sir: The long established preeminence of Philadelphia as a centre of medical education has been demonstrated anew by the Report on the State Board Medical Examinations of 1903, recently published in the *Journal of the American Medical Association.*

An analysis of the statistical tables on pages 514-517 of the issue of August 13th shows that examinations were required and were held by State boards in thirty-seven States in 1903; that the candidates were from 151 colleges in the United States and from eight Canadian and some foreign schools, and that the total number of candidates examined was 5,027, of whom 4.312 passed successfully and 715 failed, the percentage of failures being 14.2.

Considering collectively the record of the regular medical schools in each of the large cities, we find that the percentage of failures by the candidates from the schools of Philadelphia was only 5.48; from the schools of New York city, 7.12; of Boston, 7.28; of Chicago, 8.18; of Washington, 18.84; of Baltimore, 22.79; of Louisville, 27.67, and of St. Louis, 32.67.

In other words, the proportion of failures by graduates of Washington schools was more than three times that of the graduates from Philadelphia, and of those from Baltimore, Louisville, and St. Louis, respectively, it was over *four, five,* and *six* times that of the Philadelphia candidates.

Further inquiry also shows that of the large schools in the country, those having over eighty candidates in these examinations, the University of Pennsylvania is *second* on the list, the Medico-chirurgical College of Philadelphia *sixth*, and Jefferson Medical College *tenth*. That is, Philadelphia has *three* of the ten leaders among the large institutions of the country. It is also found that every school ranking ahead of the Medico-chirurgical and Jefferson Medical Colleges is a department of a university, even when the schools with over fifty candidates are included, so that the preeminent position among the independent medical schools must be given to those of Philadelphia.

Lastly, the report indicates that over 9 per cent. of the total number of successful candidates and only 3.2 per cent. of the unsuccessful ones were from the Philadelphia schools.

Comment on such a record is unnecessary, and members of the profession in Philadelphia may apparently rest assured that the institutions of the city in which so many of them are interested are not in such stage of decadence as to cause them any undue amount of anxiety or alarm.

CYGNUS.

Book Notices.

Diseases of the Intestines and Peritonæum. By Professor Dr. Hermann Nothnagel, Professor of Special Pathology and Therapy, University of Vienna. Edited, with additions, by Humphrey D. Rolleston, M. D., F. R. C. P., Physician to St. George's Hospital, London, etc. Authorized Translation from the German, under the Editorial Supervision of Alfred Stengel, M. D., Professor of Clinical Medicine in the University of Pennsylvania. Philadelphia, New York, London: W. B. Saunders & Co., 1904. (Cloth, $5.00; Half Morocco, $6.00.)

The editor states that this translation has been made from the second edition, which appeared in 1903, but despite that recent publication this text is frequently elaborated by interpolations which Dr. Rolleston modestly states may have been duly weighed by Professor Nothnagel and purposely excluded. Be it so, the facts and views added are of decided advantage to the work.

Those extensive and important subjects, diseases of the intestines and peritonæum, are treated in a most comprehensive fashion, and the editor has made the book more complete by including sections on intestinal sand, sprue, ulcerative colitis, and idiopathic dilatation of the colon. It is somewhat odd to note in a book like this one hundred pages devoted to appendicular inflammation and its medical treatment, though the editor quotes with apparent approval Osler's dictum that there is no medicinal treatment for that disease.

The English-reading profession is indebted to the editor and publishers for making this work accessible.

Practical Application of the Röntgen Rays in Therapeutics and Diagnosis. By William Allen Pusey, A. M., M. D., Professor of Dermatology in the University of Illinois, and Eugene W. Caldwell, B. S., Director of the Edward N. Gibbs Memorial X Ray Laboratory of the University and Bellevue Hospital Medical College, New York. Second Edition, thoroughly Revised and Enlarged with 195 Illustrations, Including Four Colored Plates. Philadelphia, New York, London: W. B. Saunders & Co., 1904, pp. 690. (Cloth, $5.00; Sheep or Half Morocco, $6.00.)

It is but little over a year since the publication of the first edition of this volume on the x ray, and during that time it has obtained recognition as a standard work. The present revision is especially welcome, because it records in a systematic way the results of x ray treatment up to January, 1904.

Chirurgie Orthopédique. Par Le Professeur Paul Berger et Le Docteur S. Banzet, Chef du laboratoire de médecine opératoire a la faculté de médecine de Paris. Avec 489 figures dans le texte. Paris: G. Steinheil, 1904.

This work is a part of a treatise on operative surgery and surgical therapeutics by Professor Berger and Professor Hartmann, of Paris. As is usual in continental works on orthopædic surgery, it does not include joint diseases, to which a separate volume is to be devoted.

The usual surgical procedures applicable to the correction of deformities are clearly described and illustrated, special attention being given to plastic surgery, which is often slighted. Osteotomies are freely employed, but, as is usual in foreign practice, the methods seem to be inferior to the American. There is no evidence in the illustrations of the use of the x ray, as an aid in diagnosis, record, and treatment. The paper, illustrations, and press work are superior to what we are accustomed to in this country, and the work is creditable both to the authors and to the publishers.

Clinical Urinology. By Alfred C. Croftan, Professor of Medicine, Chicago Postgraduate Medical College and Hospital; Physician in Chief to St. Mary's Hospital; Pathologist to St. Luke's Hospital. Illustrated. New York: William Wood & Co., 1904. (Cloth, $2.50.)

The author has had in mind that the practitioner of medicine needs the biological and clinical interpretation of chemical facts and the elucidation of their relationship to physiology and pathology. So the present volume, a treatise on the urinary aspect of disease, is something more than a laboratory guide to the analysis of urine, in that it includes considerable clinical information on the disorders that produce urinary abnormities.

The first chapter, it seems, should have been entitled the *albumins*, rather than the "albumens" of the urine, and we do not like the word "urinology" in the title. It is regrettable that the first section is headed "physiological albuminuria," when the author very truly states later on that such a term is a misnomer; Leube made an unfortunate selection when he introduced this nomenclature for a condition that he now concedes must be diagnosticated most carefully, one that most clinicians and pathologists believe to be a pathological phenomenon. The author of this volume tersely and conclusively states that such a transudation of albumin is invariably caused by nutritional impairment of the renal epithelia, due to intoxication or to insufficient supply of oxygen.

The term "albuminuria minima" is suggested to include those conditions classed as intermittent albuminuria and cyclic albuminuria. We think the author so correct in the statement that the serious character of minimal albuminuria should never be underestimated that we wish he would revise the paragraph that gives the impression that it is a condition of no particular importance; a hasty reader might overlook the former statement, and this book is too valuable to do else than impress its reader that when he finds albumin he is in the presence of a danger signal and must use his best judgment to determine the cause and the remedy.

It does not seem that the author has been sufficiently explicit in the description of the method of the boiling test for albumin, which we should not consider reliable if made as he describes. The urine should always be filtered, a fact that is not mentioned, and a well cleaned test tube at least six inches long should be filled to three fourths of its capacity. We agree with Professor Wood and others that the urine should be acidulated with a few drops of dilute acetic acid, rather than nitric acid. The tube being held by the bottom, the upper layer of urine should be boiled and the tube held between the eye and some black object, so that the boiled may be contrasted with the clear unboiled urine. An extensive experience has shown us that the average physician does not make this test properly. The author has omitted a description of Roberts's very valuable modification of the nitric acid test, which many chemists deem so far superior to the cold nitric acid test that the latter is no longer used by them.

The author has accepted unreservedly the experiments that showed that the administration of enormous quantities of albuminous food, containing no nuclein, was not followed by an increase of uric acid in the urine, while pabulum containing many nucleated cells was followed by increased uric acid excretion. Attention is invited to the fact, too often overlooked, that only a small portion of uric acid introduced by the mouth reappears in the urine, and only a fraction of the uric acid that can be formed from a given quantity of purinogenous food is excreted by the kidneys. With this fact, the fact that uric acid is innocuous in large quantities, injected into the circulation, and the author's important experiments that showed that the purin bases produced cardiovascular and renal changes identical with those seen in gout, it is to be hoped that there may be an end of the loose talk about uric acid diatheses. This book will be of value to every practitioner to impress the foregoing facts and the fact that the determination of the urea percentage in the urine is valueless unless the complete nitrogen output is all excrement and the nitrogen content of the diet and other factors are included in the calculation.

In the chapter on carbohydrates in the urine a plea is made for more careful, more mathematical regulation of the diet in diabetics, and the author condemns the routine habit, so universally adopted, of handing every patient with sugar in the urine a printed diet list of foods that contain no carbohydrates. The results of the author's dietetic suggestions may be determined by the methods of analysis described, and this chapter is of great practical interest.

As with urea, so with the matter of urinary phosphates, attention is invited to the fact that the amount of urinary phosphates is no index of the catabolism of phosphorus—containing foods and tissues; the phosphates in the fæces must be determined also to make the conclusions of any value.

We do not understand why the author should call the urinometer an aerometer; the latter is, as its name indicates, intended for the measurement of the density of air and other gases, and is not applicable to the measurement of the density of urine.

We agree with the author in his estimate of the value of cryoscopy. The determination of the freezing point in the twenty-four hours' urine gives no information not obtainable by other methods. Cryoscopy requires great skill to avoid the many sources of error, and the freezing point of the urine is influenced by diet, drink, exercise, fluid lost through other emunctories, anæmia, and other factors.

He properly concludes that the methylene blue test of the renal function gives results that are ambiguous and likely to lead to gross misinterpretation. And the toxicity test of the renal function is not likely to take a position as a useful and practical clinical test.

The author might have given advantageously more detailed directions in regard to the methods of testing, and it would have been well to describe the use of the centrifuge to obtain urinary sediments. These, however, are minor details, and in general the author has given us a most valuable contribution to the literature of this subject.

BOOK AND MAGAZINE NOTES.

The stories in *Young's Magazine* for October, 1904, with few exceptions, are not unlike those heard only too frequently by the elderly, benevolent physicians of our larger cities. They are much better told, however, having had the advantages of an experienced pen in the first place, and, doubtless, of careful editing subsequently. The elderly, benevolent physicians aforesaid, therefore, will find their perusal to afford much interest. Younger practitioners also may read them with amusement, if not with benefit.

A very large proportion of American physicians are country born. For that reason a story by Eugene Wood in the October *McClure's*, in which he describes a rural firemen's tournament, is bound to have a wide appeal. Here, as in The Sabbath School and The Swimming Hole, the author takes us back to the good old days. He not only refreshes, but tickles old memories, seeing all the real humor of his subject and suggesting more. Mr. Wood is a writer who, in treating well worn subjects, exhibits an entirely original point of view. His humor is unforced and most enjoyable, and his style a delight to the weary critic.

BOOKS, PAMPHLETS, ETC., RECEIVED.

Handbuch der Therapie der Chronischen Lungenschwindsucht. Mit besonderer Berucksichtigung der Tuberkulose der oberen Luftwege. Bearheitet von Dr. Aron (Berlin), Geh. Med.-Rat. Dr. Baer (Berlin-Plotzensee), Dr. F. Blumenfeld (Wiesbaden), Professor Dr. Bohland (Bonn A. RH.), Priv. Doz. Dr. Brandenburg (Berlin), Stabsarzt Dr. Cammert (Wiesbaden). Professor Dr. Finkler (Bonn A. RH.), Dr. Ernst R. W. Frank (Berlin), Dr. Ad. Gottstein (Berlin). Professor Dr. Hess (Wurzburg), Dr. Hezel (Wiesbaden), Professor Dr. Hueppe (Prag), Professor Dr. Korner (Rostock), Professor Dr. von Kryger (Erlangen), Professor Dr. Lazarus (Berlin), Professor Dr. Martius (Rostock) San.-Rat. Dr. Meissen (Hohenhonnef A. RH.), Dr. F. Mennes (Antwerpen), Professor Dr. Moeller (Belzig), Professor Dr. Joh. Muller (Wurzburg), Dr. Nahm, dirig. Arzt (Ruppertshain), Dr. Nagelsbach (Schomberg), Professor Dr. Nebelthau (Halle A. S.), Professor Dr. Nolen (Leiden), Dr. Aug. Predohl (Hamburg). Dr. Rumpf, dirig. Arzt (Friedrichsheim), Professor Dr. Saugmann (Vejlefjord Sanatorium), Dr. G. Schroder, dirig. Arzt (Schomberg), Professor Dr. Seifert (Wurzburg), Prosektor Dr. Ph. N. Tendeloo (Rotterdam), San.-Rat. Dr. Thilenius (Bad Soden), Dr. Thom (Berlin), Dr. Fr. Wehmer, dirig. Arzt (Naurod), Dr. P. Wehmer, Chefarzt des Josephspitals (Wiesbaden). Priv.-Doz. Ritter Dr. von Weismayr (Wien-Arco), Priv.-Doz. Dr. Winternitz (Halle A. S.), Professor Dr. Witzel (Bonn am Rhein). Herausgegeben von Dr. G. Schroder, dirigierendem Arzt der neuen Heilanstalt für Lungenkranke zu Schomberg O. A. Neuenburg; und Dr. F. Blumenfeld, Arzt für Nasen. Hals und Lungenkranke in Wiesbaden.

Mit 65 Abbildungen im Text und einer Tafel. Leipzig: Johann Ambrosius Barth, 1904. [Preis M. 25,-in Halbfranz geb. M. 27.50.]

Magee and Johnson's Epitome of Surgery. A Manual for Students and Practitioners. By M. D'Arcy Magee, A. M., M. D., Demonstrator of Surgery and Lecturer on Minor Surgery; and Wallace Johnson, Ph. D., M. D., Demonstrator of Pathology and Bacteriology in Georgetown University Medical School, Washington, D. C. In one 12mo Volume of 295 Pages, with 129 Engravings. Philadelphia and New York: Lea Brothers & Co., 1904. [Cloth, $1.00 net.]

A Hand Book of Surgery for Students and Practitioners. By Frederic Richardson Griffith, M. D., Surgeon. Bellevue Dispensary; Assistant Surgeon at the New York Polyclinic School and Hospital, etc. Pp. 579, with 417 Illustrations. Philadelphia, New York, London: W. B. Saunders & Co., 1904. [Flexbile leather, $2.00.]

Food Inspection and Analysis. For the Use of Public Analysts, Health Officers, Sanitary Chemists, and Food Economists. By Albert E. Leach, S. B., Analyst of the Massachusetts State Board of Health. Pp. xiv-787. New York: John Wiley & Sons. London: Chapman & Hall, Limited, 1904. [Cloth, $7.50.]

Ueber die Korperlichen Auberungen Psychischter Zustande. Weitere experimentelle Beitrage zur Lehre von der Blutzirkulation in der Schadelhohle des Menschen. Von Dr. Hans Berger, Privätdoznt der Psychiatrie an der Universitat Jena. Mit 1 Figur im Text und einem Atlas von 18 Tafeln. Jena: Gustav Fischer, 1904. [Preis, 20 M.]

Proceedings of the American Medicopsychological Association at the Fifty-ninth Annual Meeting, held in Washington, D. C., May 12-15, 1903. Published by American Medicopsychological Association, 1903.

Miscellany.

Copper Sulphate as a Water Purifier.—The Baltimore newspapers, says the *Maryland Medical Journal* for September, 1904, found quantities of easy copy in Mr. Quick's dream that a few cents' worth of sulphate of copper might postpone indefinitely the need of a million dollar filtration plant for Baltimore's water supply. The proceedings were quite serious for a week or so, and some people learned to spell and pronounce chroococcus. But in the matter of dying for the cause the chroococci were not unanimous, and the colon bacilli were of the contrary opinion. The water department will not drag the vitriol bag in the waters of the lake, but may drag the anise bag about its sylvan banks.

Medical Officers of the Navy "In Command Of."—By direct order of the President the Navy Department has reversed its original decision that officers of the medical department of the navy in charge of naval hospitals are not authorized to use the term "in command of," instead of "in charge of." For nearly two years, according to the *Army and Navy Journal* for August 27th, the Surgeon General of the navy has contended that officers of the medical department in charge of naval hospitals or other medical departments of a naval station should be authorized to use officially the term "in command of." About a year ago the matter was decided against the medical department, but the question was recently taken directly to the President by the Surgeon General, and a reversal of the decision made by the Navy Department has been ordered, with the result that this week the following special order was issued by Acting Secretary of the Navy Darling: "Medical officers in charge of naval hospitals or other medical departments of a naval station, under the commandant of the station, are hereby authorized to use the term 'in command of,' instead of 'in charge of,' to designate their respective positions." Surgeon General Rixey's contention was that the officers of his department, who actually commanded men of the naval hospital corps, could better maintain discipline if it was officially understood that they were "in command" rather than "in charge."

Southern Medical College Association.—The requirements for admission to the freshmen year, as exacted by the colleges belonging to this association, are, according to the *Nashville Journal of Medicine and Surgery* for September, 1904:

Art. IV. Sec. 3. The applicant must possess a diploma of graduation from some literary or scientific institution of learning, or a certificate from some legally constituted high school, general superintendent of State education, or superintendent of some county board of public education, attesting that he has been regularly examined and is possessed of at least the educational attainments required of first grade teachers of public schools, or a certificate that he has passed the entrance examination to a University. A student may be given one month from the date of his admission to submit his certificate of qualification, and if he fails to possess the requisite educational qualifications in one or more branches, he may matriculate and attend his first course of lectures, but must present the requisite certificate before matriculating in the second course, and all tickets or certificates issued in such cases must have the conditions printed plainly on the face of each.

A candidate for graduation (among other provisions) "must have attended, in a regular and reputable medical college, four full courses of lectures, of not less than six months (26 weeks) each, in four separate years, which is construed to mean that no two courses shall either commence or close in the same calendar year—that is, between January 1st and the ensuing December 31st." Art. VI, Sec. 2.

The following colleges are members:

Medical Department University of Tennessee, Nashville, Tenn.; Medical Department University of Nashville, Nashville, Tenn.; Medical Department University of the South, Sewanee, Tenn.; Medical Department Vanderbilt University, Nashville, Tenn.; Medical Department Fort Worth University, Fort Worth, Texas; Medical College of Virginia, Richmond, Va.; Tennessee Medical College, Knoxville, Tenn.; Medical College of Alabama, Mobile, Ala.; Birmingham Medical College, Birmingham, Ala.; University College of Medicine, Richmond, Va.; Medical Department Baylor University, Dallas, Texas; Medical Department University Mississippi, Oxford, Miss.

The secretary-treasurer is Dr. G. C. Savage, Nashville, Tenn.

Delirium Grave.—In a paper recently read before the New York Neurological Society Dr. W. B. Pritchard said that all authors agreed that this disease was very uncommon, and most writers agreed that it was chiefly found among women. The immediate exciting causes were apparently numerous and various. Typhus or typhoid fever or some other prolonged infection might be followed by delirium grave. The clinical picture was quite distinct and constant. Following a sudden or prolonged strain, the patient fell into a maniacal condition, with violence and incoherence. Hallucinations and delusions appeared, usually related to the visual sense, and the temperature was usually raised from one to five degrees above the normal. Again and again transient remissions might occur, but they became less and less complete and less frequent. Emaciation was sometimes rapid, followed by exhaustion, coma, and death in a short time. At least two fundamentally different diseased conditions had been confounded—one obviously organic, inflammatory, and due to toxines or trauma; the other giving chiefly negative pathological findings. He would suggest the use of the term delirium grave to this group and the application of the name pseudodelirium grave or acute febrile delirium to the first group. Many cases of meningitis and of toxic encephalitis had been reported as delirium grave. In ordinary acute mania there was not the same tendency to rapid and fatal collapse, and the hallucinations and delusions were more systematized. The disease was of extremely grave prognosis, nearly all cases terminating fatally. Death usually occurred from exhaustion; those who escaped death passed into a condition of dementia. The case reported occurred in a woman aged forty-three years who had been subject to many and severe nervous strains. On December 12th she was suddenly attacked with the most violent mania. The delirium and mania were only temporarily controlled by drugs, and she died on the sixteenth day. A noticeable peculiarity was an almost continuous expectoration. Incontinence of urine and fæces developed a few days before death. The autopsy was made four hours after death by Dr. McPhee and Dr. Larkin. Sections were made from all the regions of the brain. No changes in the bloodvessels were noted; the chief changes were eccentricity of the nuclei, with ragged cell outlines and loss of chromatic bodies. In the cerebellum, Perkins's cells were mere shadows. These lesions had been found in a great many other conditions.

Radium and Vision.—It has been suggested that radium might afford material assistance in cases of blindness. It must be borne in mind, says the *Edinburgh Medical Journal* for September, 1904, that, though radium gives out light producing rays, it is not self-luminous in the sense of making itself visible. If radium be brought even near to the eyes in ordinary daylight it gives rise to no special sensation; but if this be done in a dark chamber, with the eyes in a state of " dark adaptation," a strange, weird, ghostly seagreen light is seen but the substance itself is invisible. If an eye, then, from opacity of cornea or lens is " blind," can those rays help it to see? Not directly, it seems for two reasons: First, that to give rise to this light at all the radium must be near the eye, and after a very little time proximity to radium is decidedly dangerous to its integrity; second, that the radium rays pass through all tissues, eyelids, cornea (even when it is " opaque "), bones, etc., so that it is impossible to localize the source. If a candle is held up above one's head, one knows its situation because all but the lower reaches of the retina are protected from its rays, but radium rays passing through everything, this localization is not possible.

But radium causes many substances to fluoresce, and attention was next turned to the platinocyanide screen. It may here be remarked that it is not improbably by means of fluorescence that the radium rays are visible at all. for it has been shown (*a*) that the crystalline lens and the retinal tissues themselves are caused to fluoresce, and (*b*) that an eye whose lens has been extracted " sees " radium more readily than one whose lens is *in situ.* Radium has also a direct action on the retinal purple, bleaching it even in the dark, but that has probably nothing to do with the question of vision. By placing a morsel of radium in the neighborhood of one of those screens, London, having taught his patients to observe the fluorescent light, next endeavored to get them to appreciate form. On the screen, partially covering it, he placed large letters and figures (a circle, triangle, etc.) cut out of a metal plate; where the metal was, no fluorescence of course was, and with some trouble he got his patients to recognize these letters, and by and by to add one to another and so make syllables, words, and even short sentences. A little reflection will show how this must be a slow process, for the letters had to be large, as the fluorescent rays appear incapable of refraction and could not be focused upon the retina: unless, therefore, the figures had been of considerable size, they could not have been interpreted by the retina at all. One letter at a time was all that could be employed. Those who had formerly been able to read and write were naturally more easy to teach than those who had not, but even these were taught to write by tracing out in the air with the finger the form or movements of the screen.

But when all is said and done, what these patients perceived was, as is clearly pointed out by Greeff, not radium rays, but light called forth by radium, and none of this can be perceived save by eyes which are capable of perceiving light in ordinary ways. In all probability, therefore, with a bright light and large cardboard or other letters, London could have achieved very similar results. The case stands thus: If the patient is able to perceive light, he can see the fluorescent screen, and probably the silhouetted letters; if he is unable to know light from darkness (*e.g.*, from optic atrophy), we have no reason whatever to suppose that the abnormal stimulus of radium could help him, and manifestly the platinocyanide screen is of no avail.

So far, then ,as we have gone at present. radium is not available to assist those who are so unfortunate as to have lost their sight. As to the future, considering the wonderful developments and " miracles " of late years, such as wireless telegraphy, it is best not to prophesy. but merely to say that we have no reason to expect that it will ever be.

Newspaper Medicine.—The daily papers now recognize a growing popular interest in medical matters, and well-written articles command a ready sale. The preparation and sale of popular articles to the lay press naturally does not appeal to physicians who are fully engaged in professional work, and the supply is drawn from very poor sources. There is no doubt that the newspapers would greatly prefer the work of good men, and it is an absolute waste of professional opportunity to allow the publishers so little discrimination in the choice of material. The *Maryland Medical Journal,* for September, 1904, points out that it is in the power of many first rate physicians, and beneath the dignity of none, to give the general public most interesting information, which is at the same time wholesome.

The Sunday papers recently published an example of very bad scientific literature in an article copyrighted by one Viskniskki, and written by a Dr. Marion T. Haslett, whose name does not appear in Polk's Directory. His title is What to Do in Danger, and the particular dangers which he considers in three columns are the bites of dogs and snakes. This blind guide advises one who is bitten by a dog to suck the wound and to dismiss the last shade of suspicion that the dog may have been rabid. After a dog bite one may die of fright, but not of rabies. True rabies, he says, is extremely rare, while simulated rabies is not uncommon. Of course, he quotes Rosse and Dulles, and misquotes more authoritative men. The sources of misinformation in the subject were somehow accessible to this writer. If one fails to suck out the fear of rabies, one may take a vapor bath. The dog takes his chances, and the writer knows of no case of rabies in a dog, though he accounts for more than a quarter of a million dogs who were not rabid.

It is well enough to diminish the popular fear of dog bites, but to discredit the existence of rabies would be the reverse of a public service if such a dangerous disbelief could be lodged in the public mind. Rabies in man is so rare in America that but 128 persons died of it in the United States in 1900. It is so uncommon that probably no more than 128 persons were attacked by the disease. The distribution of the deaths was, however, such that there is probably no doubt whatever of the existence of rabies in the localities where these deaths occurred. In Alabama 12 deaths from rabies occurred, all in one neighborhood; in Texas 12, in Illinois 14; here, too, fatalities were bunched in a way that suggests local outbreaks of something more substantial than fear. Outbreaks of rabies are rather convincing indeed at close range. Baltimoreans believed in rabies some years ago when a dog in one day frightened ten or a dozen children so badly that eight of them died in the course of the following six weeks.

Dr. Haslett's advice about snake bites is more detailed. If bitten, you are to suck "for all you are worth." You must take whiskey enough to quell the "blues," but not enough to be exhilarated, and thus, neatly poised between a funk and a jag, you should go to a doctor. If you go in for frills, you may allow the doctor to inject the ever ready antivenene. In case you cannot find a doctor, you should maintain your alcoholic disequilibrium for a week or longer.

Official News.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the week ending September 16, 1904:

Smallpox—United States.

Place.	Date.	Cases.	Deaths.
Florida—At large	Sept. 3-10	19	
Illinois—Chicago	Sept. 3-10	1	
Indiana—Kokomo	Sept. 3-10	1	
Louisiana—New Orleans	Sept. 3-10	1	
Massachusetts—Lowell	Sept. 3-10	1	
Massachusetts—North Adams	Sept. 3-10	5	1
Michigan—Grand Rapids	Sept. 3-10	1	
Michigan—At 42 places	Aug. 27-Sept. 3	Present.	
Missouri—St. Louis	Aug. 27-Sept. 10	5	2
Ohio—Zanesville	Aug. 6-13	1	
Pennsylvania—Philadelphia	Sept. 3-10	1	1
Tennessee—Nashville	Sept. 3-10	2	
Smallpox—Foreign.			
Austria-Hungary—Prague	Aug. 20-27	1	
Brazil—Bahia	July 31-Aug. 13	22	1
Canada—Belleville	Aug. 29-Sept. 12	7	
Canada—Winnipeg	Aug. 13-27	2	
China—Shanghai	Aug. 4-11		1
France—Paris	Aug. 20-27	7	
Great Britain—Dublin	Aug. 20-27	1	
Great Britain—Leeds	Aug. 20-27	1	
Gt. Britain—Newcastle-on-Tyne	Aug. 20-27	7	
Great Britain—Nottingham	Aug. 20-27	2	
Great Britain—W. Hartlepool	Aug. 20-27	2	
India—Bombay	Aug. 9-16		1
Italy—Palermo	Aug. 20-27	14	8
Mexico—City of Mexico	Aug. 21-28	1	4
Russia—Moscow	Aug. 6-20	15	2
Russia—St. Petersburg	Aug. 13-20	1	4
Russia—Warsaw	July 31-Aug. 6		22
Turkey—Alexandretta	Aug. 13-20		3
Yellow Fever.			
Ecuador—Guayaquil	Aug. 8-15		1
Mexico—Coatzacoalcos	Aug. 27-Sept. 3	4	1
Mexico—Vera Cruz	Aug. 27-Sept. 3	14	
Cholera.			
India—Bombay	Aug. 9-16		33
India—Calcutta	Aug. 6-13		4
Plague.			
Africa—Cape Colony	July 23-30	2	
Brazil—Bahia	Aug. 5-18	17	7
Egypt	Aug. 6-13	4	3
			At Alexandria.
India—Bombay	Aug. 9-16		44
India—Calcutta	Aug. 6-13		3
India—Karachi	Aug. 7-14	3	2
Mauritius	June 17-July 7	6	5
Peru—Callao	Aug. 13	1	
Peru—Colan	Aug. 17	Reported.	
Peru—La Sullana	Aug. 17	Reported.	
Peru—Lima	July 31-Aug. 6	11	5
Peru—Salaverry	July 31-Aug. 6	2	1
Peru—Sechura	Aug. 17	Reported.	
Peru—Payta	July 31-Aug. 6	4	2

Public Health and Marine Hospital Service:

List of Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the Public Health and Marine Hospital Service for the seven days ending September 14, 1904:

GOLDSBOROUGH, B. W., Acting Assistant Surgeon. Granted leave of absence for three days from September 8th.

GOODMAN, F. S., Pharmacist. Granted leave of absence for three days from September 3, 1904, under paragraph 210 of the regulations.

HORSEY, J. L., Acting Assistant Surgeon. Granted leave of absence for fourteen days from September 10th.

MASON, W. C., Acting Assistant Surgeon. Granted leave of absence for five days from September 19th.

PARKER, H. B., Passed Assistant Surgeon. Granted leave of absence for one month from October 1st.

PECKHAM, C. T., Surgeon. Granted leave of absence for one month from October 8th.

PURVIANCE, GEORGE, Assistant Surgeon-General. Granted extension of leave of absence for one month from September 1, 1904, on account of sickness.

ROBERTSON, H. McG., Assistant Surgeon. Temporarily relieved from duty at Stapleton, N. Y., and directed to proceed to Washington, D. C., and report at the bureau for temporary duty. September 10, 1904.

RUCKER, W. C., Assistant Surgeon. Granted leave of absence for fourteen days from September 15th.

Scott, E. B., Pharmacist. Granted leave of absence for twenty-five days from September 19th.

Slough, Charles, Pharmacist. Department letter of August 3, 1904, granting Pharmacist Slough leave of absence for thirty days from August 10th, amended to read nine days from August 17th.

Stevenson, J. W., Acting Assistant Surgeon. Granted leave of absence for seven days from September 3, 1904, on account of sickness.

Tuttle, Jay, Acting Assistant Surgeon. Granted leave of absence for seven days from September 12th.

Vaughan, G. T., Assistant Surgeon-General. Detailed to represent the service at meeting of the Association of Military Surgeons, to be held at St. Louis, Mo., October 10-15, 1904.

Wertenbaker, C. P., Surgeon. Detailed to represent the service at the meeting of the Association of Military Surgeons, to be held at St. Louis, Mo., October 10-15, 1904.

Wickes, H. W., Passed Assistant Surgeon. Directed to proceed to Wilmington, Del., for special temporary duty. September 8, 1904.

Resignation.

Pharmacist W. W. Kolb, resigned, to take effect September 1, 1904.

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending September 17, 1904:

Barney, Charles N., First Lieutenant and Assistant Surgeon. Granted twenty days' leave of absence, to take effect September 14, 1904.

Bratton, Thomas S., Captain and Assistant Surgeon. Relieved from duty at Fort Sam Houston, Texas, and ordered to Chicago, Ill., for duty as attending surgeon and examiner of recruits.

Field, Peter C., First Lieutenant and Assistant Surgeon. Granted thirty days' leave of absence.

Purviance, William E., Major and Surgeon. Relieved from duty as attending surgeon and examiner of recruits, Chicago, Ill., and ordered to Manila, P. I., for duty.

Roberts, William M., First Lieutenant and Assistant Surgeon. Granted twenty-one days' leave of absence.

Rockhill, Edward P., First Lieutenant and Assistant Surgeon. Order for temporary duty at Fort Miley, Cal., revoked.

Tefft, William H., First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Snelling, Minn., and assigned to duty at Camp Lakeview, Minn.

Thornburgh, R. M., First Lieutenant and Assistant Surgeon. Reported for temporary duty at the United States Army General Hospital, Washington Barracks, D. C., from Manassas, Va.

The following named medical officers are relieved from duty at posts designated after their names and will report on October 1, 1904, to Colonel Charles L. Heizmann, Assistant Surgeon-General, president of the faculty of the Army Medical School, Army Medical Museum Building, Washington, D. C., for a course of instructions at that school:

Baily, Howard H., First Lieutenant and Assistant Surgeon. San Francisco, Cal.

Brown, Henry L., First Lieutenant and Assistant Surgeon. Columbus Barracks, Ohio.

Culler, Romert M., First Lieutenant and Assistant Surgeon. Fort Jay, N. Y.

Davis, William R., First Lieutenant and Assistant Surgeon, San Francisco, Cal.

Freeman, Paul L., First Lieutenant and Assistant Surgeon Fort Slocum, N. Y.

Humphreys, Harry G., First Lieutenant and Assistant Surgeon. Fort Totten N. Y.

Owen, Leartus J., First Lieutenant and Assistant Surgeon. Fort Myer, Va.

Weed, Frank W., First Lieutenant and Assistant Surgeon. Fort McHenry, Md.

Wickline, William A., First Lieutenant and Assistant Surgeon. Fort Ethan Allen, Vt.

Zinke, Stanley G., First Lieutenant and Assistant Surgeon. Fort Riley, Kan.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending September 17, 1904:

Bertolette, D. N., Medical Inspector. Detached from duty as a member of the Naval Retiring Board and of the Naval and Medical Examining Boards, Washington, D. C., and ordered to resume other duties.

Breck, F. W., Pharmacist. Ordered to the Naval Hospital, New York, N. Y.

Green, E. H., Medical Inspector. Ordered to the Navy Yard, New York, N. Y., October 1, 1904.

Price, A. F., Medical Director. Detached from the Navy Yard, New York, N. Y., October 1, 1904, and ordered to duty as a member of the Naval Retiring Board. Washington, D. C.

Births, Marriages, and Deaths.

Married.

Davis—Proctor.—In London, England, on Monday, August 29th, Dr. Arthur Newton Davis and Miss Helen Winifred Proctor.

Keem—Miller.—In Chicago, Illinois, on Wednesday, September 14th, Dr. Law Keem and Miss Edith Miller.

McGehee—Gurley.—In New Orleans, Louisiana, on Wednesday, September 7th, Dr. Edward Larned McGehee and Miss Aurora Gurley.

Mabry—Mayne.—In Salt Lake City, Utah, on Wednesday, September 7th, Dr. William Cary Mabry and Miss Bessie Mayne.

Muhlberg—Zinke.—In Idaho Springs, Colorado, on Wednesday, September 7th, Dr. Edward Muhlberg, of Cincinnati, and Miss Edna Zinke.

Pohlman — Black.—In Baltimore, Maryland, on Wednesday, September 14th, Dr. Augustus Pohlman and Miss Kathleen Black.

Sears—Struthers.—In Philadelphia, Pennsylvania, on Wednesday, September 14th, Dr. Henry Francis Sears, of Boston, and Miss Jean Irvine Struthers.

Died.

Buechner.—In Youngstown, Ohio, on Saturday, September 10th, Dr. William L. Buechner.

Campbell.—In Boston, Massachusetts, on Wednesday, September 14th, Dr. Henry F. Campbell, in the sixty-first year of his age.

Chambers.—In Kingston, N. Y., on Thursday, September 15th, Dr. Jacob Chambers, in the fifty-third year of his age.

Clarke.—In South Boston, Virginia, on Saturday, September 10th, Dr. Alexander Trent Clarke, in the sixty-third year of his age.

Craig.—In Baltimore, Maryland, on Saturday, September 10th, Dr. Philip Eugene Craig, in the thirty-sixth year of his age.

Fuller.—In Sterling Centre, N. Y., on Monday, September 5th, Dr. Ellery G. Fuller.

George.—In Macas, near Canton, China, on Sunday, September 4th, Dr. J. Maude George, of Allegheny, Pa.

Hinkle.—In Hinkleville, Kentucky, on Tuesday, September 13th, Dr. Charles Hinkle, in the sixty-seventh year of his age.

Kittinger.—In Lockport, N. Y., on Sunday, September 11th, Dr. Martin S. Kittinger, in the seventy-eighth year of his age.

Lackey.—In Mayfield, Kentucky, on Monday, September 12th, Dr. T. S. Lackey, in the eighty-third year of his age.

Ough.—In Chicago, Illinois, on Sunday, September 11th, Dr. R. J. Ough, in the sixty-sixth year of his age.

Vanlear.—In Long Glade, Virginia, on Thursday, September 8th, Dr. A. G. L. Vanlear, in the seventy-second year of his age.

New York Medical Journal
AND
Philadelphia Medical Journal.

A Weekly Review of Medicine

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Original Communications.

MITRAL REGURGITATION.*

By O. L. McKILLIP, M. D.,

KANSAS CITY, MO.

Mitral regurgitation occurs more frequently than any other valvular lesion, and yet physicians are by no means agreed on some of the most important points in connection with it. Should this paper be the means of eliciting discussion on this much discussed subject, its purpose will have been accomplished.

Mitral regurgitation is an abnormal escape—in other words, a leakage—of blood from the left ventricle through the left auriculoventricular orifice into the auricle. This leakage may be due to cellular changes in the mitral valves themselves or to a stretching of the mitral opening. As before stated, mitral insufficiency is the least serious when uncomplicated and the most frequent of the valvular diseases. Gibson, of London, found one hundred and fifty-seven out of two hundred cases, or 78 per cent. of his series. Satterthwaite, of New York, out of seventy-one cases, found forty-five to be mitral insufficiency, or 63 per cent. Walsh and Middleton, of London, give about the same per cent. Satterthwaite says that out of ten cases which he examined post mortem, eight, or 80 per cent., were organic, and two, or 20 per cent., were inorganic or relative. About 85 per cent. of the cases have associated with them some other valvular lesion, usually aortic disease.

Probably the most frequent cause of insufficiency is endocarditis, which is caused by a number of diseases, most frequently by rheumatism. Whether or not heart strain produces endocarditis is a disputed point; certain it is that heart strain will produce a relative insufficiency.

Sclerosis of the vessels, extending to the valves and chordæ tendineæ, causes them to contract and hold the valves back, thus preventing them from closing the orifice. New growths in the orifice may prevent the valves from closing. There are many causes of relative insufficiency, and, although it is usually a temporary condition, it may be permanent, depending upon whether or not the conditions producing it can be removed. Violent physical exercise and aortic aneurysm, owing to the ensuing largely dilated left heart stretching the mitral opening, are common causes.

Properly to appreciate the symptoms of mitral insufficiency it is necessary to thoroughly understand the changes which take place in the heart and the effects these changes have upon the pulmonic and systemic circulation.

It seems to be the consensus of opinion that, when the left ventricle contracts in a normal heart, the blood which it contains is forced through the aortic opening into the aorta; but, because of the failure of the mitral valves to close, a part of the blood is regurgitated into the left auricle. The left auricle, at this time in the heart's cycle, is constantly receivng its usual supply of blood from the pulmonary veins and now also contains this blood which has been forced back from the left ventricle, so that the left auricle is distended by an excess of blood. This causes it to become dilated, and its walls soon become hypertrophied because of extra work. In like manner the left ventricle will receive the amount of blood which it normally would and, in addition, it must receive and take care of the extra amount which was regurgitated at the previous systole. On account of this over distention by an excess of blood the left ventricle is the next chamber to be dilated, and, because of the excessive work it is compelled to perform to take care of the blood it contains, its walls are hypertrophied. At this time in the disease there is a congestion of the circulation in the lungs due to the fact that the left side of the heart is not able to dispose of all of the blood coming to it, thus causing a damming back, as it were, of the blood against the oncoming pulmonary circulation. It will be seen that this condition of venous stasis in the lungs makes it difficult for the right ventricle to force its contents into the pulmonary artery and allows an extra amount of blood to be in the right ventricle, thus producing dilatation. Here, again, extra work causes the walls of the right ventricle to hypertrophy. By reason of the dilatation of the right ventricle, the tricuspid orifice is held open and the back flow of blood into the right auricle causes it to become dilated, with subsequent hypertrophy of its walls.

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* Read before the annual meeting of the University Medical College Alumni Association.

This outline of the mechanism of the heart has been deduced from observation and from the literature, and these conclusions seem to be established by the post mortem findings as reported by Dr. Thomas E. Satterthwaite (*New York Medical Journal*, July 12, 1902).

Some members of the profession do not agree as to this outline, and it was this disagreement that induced me to investigate the matter as closely as possible. Being unable to get information by post mortem findings, I was compelled to resort to the literature. Musser, Da Costa, Hare, Thompson, and Osler were the authors consulted. These authorities agree to what I have just said. Not being satisfied, however, I addressed the following question to a number of prominent physicians: " In what order do the chambers of the heart dilate and walls hypertrophy in mitral regurgitation? " Replies were received from Dr. George W. Webster, of Chicago; Dr. Thomas E. Satterthwaite, of New York; Dr. Albert Abrams, of San Francisco; Dr. William J. Rothwell, of Denver, and Dr. Alexander Lambert, of New York, all of whom are eminent specialists in their respective localities. From these letters it is evident that the profession are by no means agreed upon this point. Dr. Satterthwaite says: " In mitral insufficiency there is such an imperfect closure of the mitral leaflets that, during systolic contraction of the left ventricle, more or less blood leaks back into the left auricle, already partly filled with blood coming from the lungs. Necessarily the left auricle dilates and then hypertrophies because it has more blood to be driven into the left ventricle. And, inasmuch as the left ventricle has to use more force in order to supply the aorta with its proper quantum of blood, it hypertrophies after dilating. But the overfilling of the left auricle dams the blood back on the lungs and offers such resistance to the column coming from the right ventricle that it also hypertrophies and gives way, causing dilatation of the right auricle as soon as the tricuspid yields.

" I hold that the order of events is: 1. Dilatation of the left auricle. 2. Hypertrophy of the left auricle. 3. Dilatation of the left ventricle. 4. Hypertrophy of the left ventricle. 5. Dilatation of the right ventricle. 6. Hypertrophy of the right ventricle. 7. Dilatation of the right auricle. 8. Hypertrophy of the right auricle." It will be seen that Dr. Satterthwaite agrees with all of the textbooks cited above. Dr. Webster says: " Gradual increase in the work of the heart causes it to hypertrophy the same as any other muscle, so long as its nutrition remains perfect; when leakage occurs at the mitral valve, part of the blood flows onward in the systemic circulation, and a portion regurgitates backward into the left auricle. This back flow of blood into the left auricle meets the oncoming current from the lungs and is therefore the first chamber of the heart to become engorged or overdistended. If this regurgitation is not extreme and the nutrition remains perfect, then the left auricle hypertrophies in response to this increased demand made upon it, and, so long as it is able to cope with the additional burden placed upon it, there is no engorgement of the lungs. Soon, however, the auricle dilates and the lungs become engorged and the work of the right ventricle is increased in propelling the blood through the pulmonary circuit. This results in dilatation and hypertrophy of the right ventricle. Ultimately relative insufficiency of the tricuspid may be established and the right auricle becomes dilated and hypertrophied. When this occurs the work of the left ventricle now becomes increased while, at the same time, its nutrition has been previously impaired because of low blood pressure in the coronary circulation and systemic circulation; it dilates and the dilatation is greater than the hypertrophy."

Dr. Abrams says: " The left auricle first dilates in consequence of its increased supply of blood derived not only from its normal source, the pulmonary veins, but also from the abnormal regurgitant supply through the incompetent mitral orifice. The right ventricle next dilates and then hypertrophies. The dilatation of the ventricle in question is caused by stagnation of the blood in the territory of the pulmonic circulation, which prevents the output of blood from the right ventricle, and, owing to the increased blood pressure in the pulmonary veins, the same ventricle hypertrophies as a compensatory condition to overcome the stasis. Dilatation and hypertrophy of the left ventricle may or may not occur; if it does occur it is because the hypertrophied right ventricle sends the blood in increased quantity and under augmented pressure through the pulmonary capillaries and veins into the left auricle and thence into the left ventricle, which must first dilate to accommodate itself to the increased quantity of blood and then hypertrophy, owing to the increased work thrown upon it."

Dr. Rothwell takes a very conservative view of the matter and says: " The first change is a primary dilatation of the left auricle to accommodate the increased quantity of blood. This is followed by hypertrophy of its walls in so far as its weak musculature will permit. If the lesion is a serious one and the patient's nutrition poor this compensation is soon lost and dilatation of the right ventricle, dropsy, and death will soon occur. On the contrary, with a moderate lesion and good nutrition, both ventricles gradually hypertrophy. I do not think all cases follow the same course with regard to ventricular hypertrophy; which may take the lead in hypertrophic change will depend on the extent of the lesion—the right ventricle if the lesion is considerable, the left if it is slight."

Dr. Lambert says: " I see a good many mitral insufficiencies in Bellevue, but the ones which come to autopsy are those which show the terminal lesions and not the beginning effects of this lesion. Clinically, however, the first sign, when a mitral lesion begins, is the exaggeration of the second pulmonic sound, and this, in my experience, is evident within twenty-four hours after the leak backward begins. This means extra work for the right ventricle, because of increased tension in the pulmonary artery. What goes on simultaneously in the left auricle cannot be made out because it is placed out of our reach for observation. We see, however, at autopsies, left auricles which are both hypertrophied and dilated and also left auricles which are either hypertrophied or dilated, hence we know that changes occur in this chamber. It is the first chamber to feel the strain of a mitral lesion, and I do not see how we can avoid the conclusion that it must respond in some way to the new condition. I believe that it depends upon the extent of the lesion, the rapidity with which the lesion occurs, and the condition of the muscular wall, whether dilatation or hypertrophy, or both, take place. The same is true of the right ventricle, and I think the strain of the lesion comes on the left auricle and right ventricle at about the same time. The real work of holding a good compensation for any considerable mitral lesion must fall on the right ventricle.

" Of course, it is conceivable that a small, slow forming leak may be cared for entirely by the left auricle, and I have seen this occur."

So long as the hypertrophy is sufficient to maintain an equilibrium in the circulation, the various parts of the general organism will receive enough blood to supply their wants and the effects of the engorgement of the lungs and other organs will not be noticed.

The general symptoms are due to the broken compensation in the heart muscle or an increase in the valvular lesion. When the hypertrophy becomes inadequate the symptoms are referable to the heart and to engorgement in the pulmonary and systemic veins. There is very rarely any real pain experienced, but palpitation is usual. The patient will quite often complain of a sinking sensation. Probably the first symptom of which the patient complains will be shortness of breath, especially upon exertion. When shortness of breath exists without exertion we are warned of a most severe cardiac lesion. Because of the stasis of blood in the lungs an exudate escapes into the bronchi and a cough more or less constant results. The expectoration is frequently bloody in character. The cyanosis which always accompanies this passive congestion, due to broken compensation, can usually be anticipated by observing the overdistended veins under the tongue. A very constant symptom to be observed is nausea in the morning. This is the result of stasis of blood in the vessels of the stomach, producing a chronic gastritis. The enlargement of the liver and spleen, the existence of hæmorrhoids, and the congestion of the kidneys are familiar to you.

In severe cases the urine is scanty, contains albumin and frequently casts. Dropsy, which is distinctly a phenomenon of mitral regurgitation, is usually a symptom of late occurrence.

The nervous symptoms in well established cases of mitral insufficiency are generally well marked, but I have been unable to find any explanation of their ætiology. It is generally conceded, however, that lesions of the right heart produce nervousness and excitability, while lesions of the left heart are followed by depression and melancholy.

Physical signs: On inspection the precordial area appears prominent. As a rule the area from the heart to the left clavicle will appear more prominent than the opposite side. The apex can be seen to be displaced to the left and downward, even as low as the sixth interspace, and the area of pulsation is greatly increased in the late stage, owing to the general enlargement of the heart.

Early in the disease, on palpation, the impulse is regular and strong, while after compensation is broken the impulse is weak and irregular. The pulse indicates a diminished amount of blood in the arteries and, as failure of compensation takes place, becomes small in volume, and there will be irregularity both as to time and volume. On percussion the area of heart dulness is increased to the left and downward until the right ventricle is dilated, when the area of dulness is increased also to the right. It is contended by some that in enlargement of either the right or left ventricle the increase of dulness is to the left. This mistaken idea probably results from the fact that we are unable to distinguish cardiac dulness from hepatic dulness. In order more thoroughly to satisfy myself on this point, I addressed the following question to Dr. Abrams: "In what direction does the dulness on percussion increase in dilatation of the left and in dilatation of the right ventricle?" In reply he said: "In dilatation of the left ventricle the percussional dulness is increased toward the left and downward; in dilatation of the right ventricle, dulness is increased to the right of the sternum, which is specially pronounced if the right auricle is dilated.

"Substernal dulness in the lower sternal region is present and, not infrequently, as my skiascopic studies show that in dilatation of the right ventricle the cardiac shadow corresponding to this chamber of the heart extended downward. This extension of the right ventricle downward cannot be determined by percussion, owing to the juxtaposition of the liver, as one is unable to differentiate hepatic from cardiac dulness. A clue to the preceding condition is afforded, however, by the low position of the liver, a condition which I assume to be compensatory to provide sufficient thoracic space for the enlarged ventricle. I am aware that an enlarged liver is associated with uncompensated mitral lesions, but the condition to which I refer is dissociated with any enlargement of the liver and occurs at a time when the lesion is fully compensated."

Upon auscultation in the mitral area a murmur is heard with the point of greatest intensity in that region. It is systolic in time and, when very loud, it may entirely replace the first sound and the physician will hear nothing but the murmur. The character of the sound is not the same in all cases, neither does the character of the sound indicate the gravity of the lesion. A very grave lesion may be accompanied by a low, soft murmur, while a loud murmur may attend a slight lesion. The chief characteristics of the murmur are that it is systolic in time and is transmitted to the left, sometimes being heard in the back and sometimes all over the chest and, in children, even over the abdomen.

The most important diagnostic point noticed on auscultation is an accentuation of the pulmonic element of the second sound. It is said to be of sufficient importance to call the attention of the physician to a possible mitral regurgitation even when a murmur cannot be heard at the apex.

This accentuation is due to the increased tension in the pulmonary artery, which occurs, as explained above, on failure of the left heart. The position of the patient influences the murmur, it being heard best when the patient is lying down and often ceasing when the patient stands. It is also increased after exercise. Reduplication of the first sound is very significant of mitral regurgitation when it is present. This is best heard near the apex. This condition is also found in arterial degeneration, pulmonary emphysema, anæmia and a few other conditions, but does not occur in any other valvular lesion. Of course, if there are other lesions, valvular or otherwise, the signs and symptoms of those lesions will be present.

The diagnosis of this disease is usually not difficult if the heart is examined and attention is given to the physical signs. Patients are frequently treated, however, for chronic gastritis when the gastritis is secondary to a valvular lesion. I knew of one case of mitral insufficiency that was treated for pericarditis. When a murmur is present in pericarditis, it is usually a to and fro murmur and is not transmitted. There is a murmur heard at the apex due to anæmia. This can be distinguished by the history of the case, the unintensified pulmonic second sound, and the absence of cardiac enlargement. The impulse of the heart against the edge of the lung between the heart and chest wall sometimes produces a cardiorespiratory murmur, but it is heard only at the end of a full inspiration and is not transmitted. So that if we have a murmur at the apex, systolic in time, transmitted to the axilla, an accentuated pulmonic second sound, enlargement of the heart, and evidences of blood stasis, we may safely diagnosticate mitral insufficiency.

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A New Outdoor Naval Hospital.—The naval authorities will submit an estimate of $50,000 to Congress for the establishment of an outdoor hospital for the treatment of tuberculous patients in the navy. There was some talk of converting the abandoned naval station at Port Royal, S. C., into a resort of this kind, but it is felt that this use of the buildings could not be made without special authority from Congress, and inasmuch as an appropriation would be needed for that purpose, it is considered as economical to buy an old farm somewhere in the hills, not far from the seacoast, where naval consumptives could be treated with a view to their return to the service instead of their discharge on account of disability and the addition to their names to the pension roll. It is proposed to buy a farm and build a hospital with modern equipments, and carry out the policy of treatment which has been adopted with such success at Pensacola, Fla.

THE PRESENT CONDITION OF TENONTOPLASTY.

By PROFESSOR VULPIUS, M. D.,

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(*Continued from page 594.*)

The attempts at transplantation in the thigh have for their object the replacing of the paralyzed quadriceps. The loss of this muscle in itself does not always demand treatment. In spite of its paralysis, extensive motions of the limb can be observed. Treatment is only necessary either when the ligaments of the knee joint have given way or when the joint is a flail joint or is much overextended, genu recurvatum, the leg deviating to one side, genu velgum paralyticum, when a contracture of the flexors has taken place. In the first case, the treatment can only consist of a fixation of the joint by means of orthopædic apparatus or of arthrodesis. The contracture of the flexors is best removed by the transplantation of the flexors into the quadriceps. It is indeed sufficient simply to cut the flexors, to render possible the extension of the joint, and with it, to render the leg again useful. But by it the strength of the flexors is diminished, without this strength of which they are deprived being again made use of in a rational manner, and moreover, it is not rare for the flexors to shrink again after a tenotomy, so that we have a recurrence of the flexor contracture. Both these disadvantages are obviated if we use the strength derived from the flexors to strengthen extensions. At first the task of replacing functionally the quadriceps seems very difficult, because we have to do with a powerful, and especially functionally much worked, muscle body; however, experience has taught us that a sufficient compensation can very well be accomplished. We, for example, can use for transplantation into this muscle the sartorius, which, like the extensor of the toes, is frequently spared from paralysis—often even proves to be very much hypertrophied. Its anatomical make-up makes it very fit for transplantation in a functional respect, the superficial position of its end tendon behind the condylus internus femoris making its transplantation technically easy. From the same opening, also, an adductor may be laid bare, and, further, both medial flexors may be brought forward. A lateral posterior cut, finally, renders possible the transplantation of the biceps. In bringing the three flexors to the front we by no means lose the power of flexion of the knee joint. It takes place passively and it is further influenced by both bodies of the gastrocnemius. It was this transplantation in the thigh which led Lange to the employment of the periosteal method of suture and to the elongation of the flexor tendon by means of artificial tendons. As a matter of fact, the tendon of the quadriceps above the patella is frequently found brittle, and this must undoubtedly arise from the muscular elements which here are intermingled with the tendon, the fatty degeneration of which naturally must loosen the texture of the tendon. It is, therefore, advisable to fasten the flexor tendon not only to the quadriceps tendon, but also to the periosteum of the patella. When I recommend and employ at this place the periosteal suture, I do not think to make myself guilty of an inconsequence, such as Lange has reproached me with, because we here have to deal with quite special conditions, and because here the periosteal suture can be executed on a broad area, in the whole length of the patella; hence, certainly, it is much more reliable than the suture of a simple tendon cross cut to the periosteum. The addition of silk tendon at the knee has been rarely necessary with me, in fact, only in cases of extreme flexion-contraction. Generally the tendon ends of the flexors can be made long enough by careful dissection to be at least sutured to the patella; it is often even possible to draw the tendon down to the ligamentum patellæ proprium. The technics of Lange, which inserts the artificial silk tendon directly into the tuberosity of the tibia, I do not consider rational, because by it a decidedly less advantageous direction of traction is gained than by a transplantation of the tendons to the lower end of the quadriceps or to the patella. By the latter arrangement the conditions of traction are essentially normal.

Since such transplantations were first tried in America this proceeding has also been employed with us in a large number of cases with fine results. I myself command a series of about thirty such operations. Generally, though, we have to give a diligent after-treatment to improve and strengthen more and more the motion of extension, which at first is just indicated. But we generally succeed in attaining, if not a normal, yet a sufficiently strong extension of the leg, and through it, as well as through the exclusion of the flexor contraction, in again rendering the limb sufficiently useful.

Also, in the upper extremity, attempts with the transplantation of tendons have been tried in cases of spinal infantile paralysis. Codivilla has tried to replace the opponens pollicis of the hand, although without success. Operation, on the other hand, on account of paralysis in the vicinity of the large nerves of the arm, and especially on account of paralysis of the radialis, has proved successful; concerning the technics of this special operation and its plan we have treated before. We should still have to mention attempts which have been undertaken in the upper arm to replace the triceps and the deltoid, attempts which from the first could not count on a full success.

We now leave the domain of flaccid paralyses and turn to the group of spastic paralyses. We here have to deal with a mixture of paralysis and spasm. This mixture shows a very varied combination indeed, so that sometimes we have a spastic condition only; in another case, on the contrary, a decided and widespread paralysis combined with spastic contractures. We have before designated the aim and the attainable result of transplantation in such cases to be the return of active motion by the removal of the spastic condition, as well as the correction of the deformity.

If we wish to keep true to our division originally selected, viz., into peripheral, spinal, and cerebral paralyses, we must first of all speak of the spinal spastic paralyses. However, it is difficult or even impossible for the neurologist to give an exact diagnosis of the seat, spinal or cerebral, in this group of diseases. Very frequently we have to do with an affection of both organs. It therefore seems to us advisable not to attempt this separation. Probably it might be practicable to distinguish cases of spastic paralysis with unimpaired intellect from those with different high degrees of idiocy. With it we should get at the same time an important sign for prognosis, because naturally the result of our operation must be the less favorable the less we can be helped by our patient, who cannot grasp the object and purpose of our treatment, or we may distinguish from clearly external signs onesided or doublesided spastic paralyses.

We begin with the first group, and with so called cerebral infantile paralyses. At the lower extremity the equinus so very frequent with this affection, which is mostly combined with a more or less pronounced position of clubfoot, gives us cause for transplantation. With an equinus of high degree it is advisable to lengthen plastically the tendo Achillis and afterward to execute a transplantation combined with a shortening into the extensor digitorum. I have seen very good results as to position and mobility of the foot by means of such operations. Transplantations into the extensor have been done with success in separate cases of a spastic contracture of the knee joint; and lastly it has been tried to do away with the well known flexor contraction of the wrist and fingers by means of transplantation and shortening. We possess reports of good success; we can, however, here produce a passing impairment of the condition by the transplantation, in so far that the extensors of the fingers are shortened too much and now interfere with the closing of the fist. The attempts to correct the pronation of the forearm, which is frequently combined with the flexor contraction, are interesting. Tubby has aimed to obtain this by an operative transposition of the tendon end of the pronator teres, in carrying it round the radius, so that its tension must produce a supination. Hoffa has tried to achieve the same by the transposition of the origin of the same muscle, with the same idea of transforming it into a supinator.

Of the onesided spastic paralyses, we should have to mention the apoplectic hemiplegia. Of late, as is known, increased attention has been given to the physical mechanical treatment of the sequels of apoplexies, and it has been found that usually sufficient muscle material has been spared from paralysis to restore with its aid a certain usefulness of the paralyzed entremity. It is this circumstance which has led to the thought of a tendon transplantation and of the restoration of the most important functions, and the obviating of contractures by the proper distribution of the preserved muscles. Naturally, such an operation can only be performed if the danger of a renewed apoplectic attack is remote. I myself have under such circumstances operated on the lower extremity in half a dozen cases with good success.

The experience of tendon transplantations is still greater in diplegic paralysis, especially in Little's disease, which has given me occasion to operate in more than thirty cases. The combination of manifold tenotomies, for the removal of contractures in the hip and the knee joints, with the transplantation in the leg, the fixation in the correcting bandage carried out sufficiently long, and the energetic after-treatment in most cases, render the little patient completely able to walk, and afford a pleasing result, supposing that the upper extremities are useful and that we do not have a substantial interference with the intellect.

(To be concluded.)

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Bequests to Charitable Institutions.—By the will of Amos West, who died recently in the Norristown Asylum for the Insane, the Methodist Hospital receives $5,000 on the death of his legatees to endow what shall be known as the West Bed.

By the will of John J. Holmes, on the death of his widow, the residue of his estate, after some private bequests, reverts to St. Joseph's Home for Industrious Boys.

PROFESSIONAL RESPONSIBILITY IN ACCIDENT CASES INVOLVING LITIGATION.*

By JOHN B. ROBERTS, M. D.,
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The professional responsibility of the medical attendant or examiner employed by the party sued for damages and that of the doctor of the patient injured are identical. The duty of both is to obtain, as soon as possible, restoration of the victim's health and a just settlement of the pecuniary debt of the agent responsible for the accident.

The experience of the public in recent years has caused a justifiable distrust of the opinions of partisan surgeons employed by corporations as well as of the views of experts paid by patients endeavoring to recover damages. Medical men can do more than any other citizens to dispel this doubt as to the reliability of professional testimony. The medical profession is responsible for its existence and should therefore feel an impelling duty to sweep away every cause of suspicion as to the honesty, justness, and reliability of the medical evidence.

The result of a suit must depend almost entirely on the medical testimony, and partisanship has no place in the professional investigation of diagnosis, prognosis, or treatment. Truth and justice are the two objects to be sought by doctor, lawyer, judge, and jury. The doctor's single duty is to be honest and reasonable, not laying undue stress on any symptoms and not claiming omniscience.

The injuries which require medicolegal investigation may for the present purpose be divided into three classes:

1. Cases in which there is obvious physical lesion of a serious character, such as fracture, dislocation, or wounds. Here the surgeon's medicolegal responsibility centres to a great extent in the prognosis, for the diagnosis and treatment are sufficiently clear.

2. Cases in which a physical lesion is obvious, but evidently of little importance. Here the professional responsibility is largely concerned with diagnosis, and the doctor must be on the alert to detect, by careful and repeated examinations, symptoms of obscure danger to the nervous system or other deep structures.

3. Cases of mental shock without obvious physical lesion, in which there is a possibility of the development at a later time of the so called functional disturbances to which the term traumatic neurosis has been applied. Here the prime responsibility of the surgeon appears to me to be the prevention, by judicious treatment, of the development of the nervous derangement. Many of the nervous wrecks seen in the courts, demanding, and often receiving from juries, large sums of money for accidents, are the creation of injudicious, thoughtless, or dishonest doctors.

In all these classes of injury there may be developed an hysterical or neurasthenic element; but it is in the last two classes that such neuroses are most likely to occur.

In this paper the open attitude of suspicion frequently exhibited by corporation agents towards injured persons and their medical attendants is not under discussion; but the unjust verdicts sometimes obtained explain that attitude. Crafty lawyers and dishonest doctors are obtainable in all large communities to aid in a miscarriage of justice and to bring discredit on their respective professions.

Immediate and careful examination, with accurate record of the patient's statements and of the symptoms at the time of injury, the avoidance of injurious suggestions, the prompt institution of scientific treatment, and an early settlement of damages will diminish litigation and hasten the recovery of the patient.

The doctor should make several examinations, because errors and oversights are thus avoided. He should remember that disease may have existed before injury, that disease may follow injury and yet not be due to it, that the patient may be mistaken and not dishonest, and that hysteria and neurasthenia are common conditions, which may exist with organic lesions without being directly connected therewith.

Corporations liable to be sued would save money by always employing experienced practitioners to examine the injured early, in company with the medical attendant, and by insisting upon at least two such examinations. This procedure would usually get at the truth, often restrain the patient from malingering, sometimes prevent the development of traumatic hysteria or neurasthenia, perhaps scare away scheming lawyers and doctors, and generally restore the patient's health more promptly.

Delay in settlement, too many examinations by various doctors, unwise suggestions of symptoms made by thoughtless examiners, and numerous conferences with lawyers are productive, in many instances, of traumatic neurosis and have unjustly drawn many thousands of dollars from corporation treasuries.

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* Read before the Medical Society of the State of Pennsylvania.

In conclusion, I desire to emphasize two points: First, that an ignorant, careless, or injudicious doctor may be the real cause of many cases of traumatic hysteria and neurasthenia; and, secondly, that prompt settlement of damage suits is an inestimable aid in the cure of accidental injuries associated with litigation.

313 South Seventeenth Street.

SOME OF THE DIFFICULTIES TO BE OVERCOME IN THE RADICAL MASTOID OPERATION FOR THE CURE OF CHRONIC PURULENT OTORRHŒA.*

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In a ten minute paper it is, of course, impossible thoroughly to treat the subject under consideration, and the writer will merely attempt a rambling and disjointed discussion on the objections to the radical mastoid operation for the permanent relief of chronic purulent otorrhœa, which may be broadly defined, as expressed by Berens and others, to be a suppurative process that has persisted more or less actively for six months or more. The indications for the ordinary operation for a mastoid abscess will be utterly ignored through lack of time, and from the fact that its urgencies and necessities are well understood and generally recognized. The writer believes that the asking of a single question should place the necessity for the radical mastoid operation, for the relief of chronic purulent otorrhœa, in its proper light. Why should the ordinary rules of surgical expediency, which point to the removal of necrotic and dangerous tissue in other portions of the body, be more or less ignored in cases of intractable chronic purulent otorrhœa? This question is emphasized by the fact that in almost all such cases the morbid changes are not confined to the middle ear space, but are continued back through the aditus ad antrum to the antrum, and usually into the mastoid cells. It may be stated with reasonable certainty that instances of pure middle ear suppuration, even if accompanied by necrosis, can usually be cured by the conservative treatment with which the average surgeon is quite familiar; bearing in mind that occasionally removal of the malleus and incus, together with middle ear curettement, may be necessary to effect a complete healing. But where such measures fail to cure, is there any good reason for not advising the radical operation, which throws the meatus, middle ear, aditus ad antrum, antrum, and probably the mastoid cells into one large accessible cavity, thus rendering it possible to eradicate every vestige of diseased tissue, and to obtain a healthy healing of the parts, such as is continually accomplished in all other parts of the body by general and special surgeons? In answering this question, a number of replies must receive consideration. In the first place, many ultraconservative physicians have been for many years preaching the gospel of non-interference in cases of aural discharges, until many of the lay community, and some medical men, who should know better, believe that an aural discharge is a fortunate vent for the drainage of unhealthy material, the cessation of which would cause brain disease and death. Again, the same misled doctors and their lay followers, observe that many people carry discharging ears for years, and, inasmuch as no calamity has befallen them, listen with incredulity and scepticism to the wiser and more advanced surgeon, who enlarges upon the danger of discharging ears, and advises operations for their cure. These objections, however, are met to a greater or less extent in all fields of surgery, many of the ultraconservative medical men and their lay followers championing a general prejudice against all operations, and really never setting aside their preconceived beliefs until death has nearly stamped a victim for its own.

The dangers of the radical mastoid operation are such that, while they should not deter the competent and progressive surgeon from undertaking the work after the conviction for its necessity has been reached, the operation should not be performed without much study, experience, and observation, and not until its urgency is unmistakably manifested. The question as to what should finally cause the surgeon to advise the radical mastoid operation is one of great importance. Cases of aural suppuration accompanied with symptoms of grave intracranial and constitutional complications will not be considered, as time forbids, and the necessity for operative procedures in such cases is so plain as to be unmistakable. The time for advising operation in quiescent cases of chronic intractable tympanic suppuration is, however, another matter, and opens up a wide field of discussion, in which this paper may not participate on account of its required length and because it would require an answer to several questions; as, for instance: How long must a discharge continue before it can be called *chronic?* and What can be properly called an intractable tympanic discharge? While many interpretations of such classifications are possible, and while no hard and fast rule for chronicity and intractability can or should be established, the writer believes that in a general way an aural discharge may be considered both chronic and intractable when it continues to exist after about six months of faithful and intelligent care and treatment.

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* Read before the Chicago Medical Society.

The chief objection to the radical mastoid operation is the production of facial paralysis (an accident which should seldom if ever occur after the operation for acute mastoid abscess), and this is a menace of no mean calibre, and one from which the average operator may well shrink. It is a most distressing sight for a surgeon to see a face pulled to one side after anæsthesia unconsciousness has passed away, and to realize that this is the work of his own hands. If this disheartening appearance is shocking in an obscure hospital patient with few or no friends and little or no influence, what must it be to witness such an occurrence amid wealthy and influential surroundings, where the bad tidings will spread like wild fire to the undoubted detriment of the operator's reputation? While these circumstances, under any social conditions are bad enough, the possibilities for a suit for malpractice must never be forgotten, nor the effect of this drawn and one sided countenance upon the community at large, and the trial judge and jury in particular. It may be said, however, for the encouragement of operators who are doing this character of work, that these patients almost invariably recover in a few weeks or months, and those who do not recover may usually be successfully operated upon by the attachment of the facial nerve to the hypoglossal or spinal accessory nerve, as recommended and successfully practised by Ballance and others. The facial nerve may be injured in any portion of its course, from its entrance into the middle ear at the upper middle portion of the tympanic wall, to its exit from the skull at the stylomastoid foramen. Contrary to popular belief, the facial nerve always remains within the confines of the petrous portion of the temporal bone, and does not enter the mastoid protuberance at all. On chiseling away the mastoid cells, the hard petrous covering of the nerve may be clearly seen at the anterior portion of the cell structure, just back of the bony meatus and below the floor of the antrum, and should be carefully avoided, although considerable protection is afforded by its sclerotic casing. The shell of bone protecting the nerve as it passes through the tympanum is, on the contrary, very thin and sometimes entirely absent in spaces, thus accounting for the occurrence of facial paralysis during middle ear suppurations. Most cases of facial paralysis following mastoid operations are due, not to injury of the nerve after it leaves the tympanum on its way to the stylomastoid foramen, where it is protected by its petrous covering, but to the breaking of the walls of the tympanic Fallopian canal by probing, chiseling, or curetting, an accident which may occur to the most painstaking operator; especially where openings of the canal either of a necrotic or congenital nature are present. Indeed, facial paralysis is said to occur from the mere jarring of the nerve during chiseling proceedings, an opinion which argues in favor of gentle manipulations, a soft head cushion, and more familiarity with a reliable dental engine, instead of the chisel, for the bone work.

Another danger to be avoided during the radical mastoid operation is the infliction of an injury to the horizontal semicircular canal. At the extreme upper and posterior portion of the inner wall of the tympanum, between the facial nerve and foramen ovale anteriorly, and the mastoid antrum posteriorly, can be seen the hard bony convexity covering the horizontal semicircular canal, usually easily recognized as a yellowish prominence in the middle of the inner tympanic wall. Being situated just at the floor of the angle where the antrum merges into the aditus ad antrum, injury to this portion of the internal ear may be easily inflicted by a blow of the chisel, especially after the superior posterior wall of the bony meatus has been cut away in the performance of the radical operation. Nevertheless, it would seem that this accident rarely occurs, as not many instances of disturbances of equilibrium and dizziness are recorded after such surgical procedures, symptoms which assuredly would be expected after injury to these centres of equilibrium, and symptoms which, fortunately, as a rule, pass away in a few days. A partial explanation of the infrequency of injury to the facial nerve on its downward course, and of a similar infrequency of injury to the horizontal semicircular canal during the radical operation, resides not only in their hard and compact coverings (which protect them from accidents, and, to the eye of the operator, distinguish them from their bony surroundings), but also in the fact that they lie below the plane of proper chiseling procedures, as in cutting away the posterior meatal wall, while the initial opening should be wide, the receding space should gradually diminish in size as the inner wall of the tympanum is approached. Thus, the space produced should be triangular in shape, with the apex at the inner wall of the tympanum and the base at the opening of the bony meatus. By thus carefully chiseling, both the descending portion of the facial nerve and the convexity of the horizontal semicircular canal will lie outside the lines of incision and escape injury. Both these vulnerable anatomical points may also usually be avoided by the use of the Stacke protector as the last few pieces of bone are removed to make the triangular space, or opening, necessary for the careful inspection and treatment of the middle ear, antrum, etc. The protector should also be used in chipping away the ledge of bone separating the attic from the meatus, without which procedure a perfect cure is highly improbable. It should not be forgotten, however, that the introduction and retention of the footplate of the protector may in itself injure the facial nerve and semicircular canal unless carefully introduced and used, and that the same thing may occur from undue force in malleting through the chisel on to the footplate of the protector through an undue sense of security.

The wounding of the sigmoid portion of the lateral sinus is undoubtedly one of the dangers of the radical mastoid operation, although the writer believes that this danger has been very much overestimated, both as to its probability and also as to the damage accomplished by such an accident. The knee of the sinus usually lies about one inch back of the posterior wall of the meatus, except in children and people of small heads, when its proximity is closer. It may lie farther backward or farther forward, even to the extent of impinging close upon the meatal wall, and absolutely preventing the performance of the classical mastoid operation. Vascular connections exist between the sinus and the cells, thus affording at least one explanation as to the frequency of sinus infections. The outer osseous covering of the sinus is easily broken, and care should be exercised to prevent this accident during operative procedures. Still, no especial anxiety need be felt if this occurs, although the subsequent operative steps are always thereby considerably embarrassed, through constant vigilance lest the dural covering be also ruptured. Even, however, should this occur, the prompt use of tampons will almost always control the hæmorrhage, and the danger of infection is not great. The writer believes that the danger is not so much in damaging the sigmoid sinus as in the improper handling of a case where phlebitis and thrombosis are discovered; and, as these conditions are generally to be found (if found at all) in cases of acute or subacute mastoiditis, or in acute exacerbations of chronic mastoiditis and otorrhœa, where the operation is clearly indicated as a life saving measure, it need not be considered in the present paper.

Another danger in the radical mastoid operation is the possibility of exposing the dural covering of the temporosphenoidal lobe or the cerebellar lobe of the brain; and here it may also be said that, in the opinion of the writer, this danger has been much overestimated, and that but little anxiety need be entertained, even if such accidents occur.

There is, of course, some danger in opening up an avenue of infection through the foramen ovale; in case of the accidental removal of the stapes during the extraction of the malleus and incus; or in middle ear curettement; or in entering the carotid artery in front and beneath the middle ear; or the jugular fossa directly underneath the tympanum, by too vigorous operative measures. But these accidents, especially the two latter, are of extremely improbable occurrence, and should not enter into our calculations in estimating the advisability of an operation.

While, therefore, meningitis and other intracranial complications and accidents to the facial nerve, horizontal semicircular canal, sigmoid sinus, etc., may result from the performance of the radical mastoid operation, the only occurrence that seems to the writer to sustain much weight is the embarrassing and unfortunate occurrence of facial paralysis. This is surely a valid objection, and one that demands consideration; but the only suggestion that can be offered by the writer is not to neglect or abandon this truly admirable operation, but to perfect our skill, knowledge, precautions, and surgical technics so that this and other accidents and misfortunes will not occur. So far as danger to life is concerned, in a properly executed radical operation for the cure of chronic purulent otorrhœa, when no dangerous symptoms are present, the writer believes that such an occurrence, while of course possible, is extremely improbable, and he has never seen it in his own practice.

Another objection to the operation is the fact that the ultimate result is not always successful as to the cessation of the discharge. Such a result, after passing through the dangers of the operation, the protracted healing, and the considerable expense, is not reassuring, and naturally discourages both the operator and the patient. Unsatisfactory issues of this nature are, however, in the opinion of the writer, practically always unnecessary and due to improper and insufficient operative procedures, such as lack of care in the extermination of every particle of necrosed bone, or insufficient curettement of the Eustachian tube opening, which should be thoroughly scraped, cleansed, and, if possible, sealed. as its office after this operation is lost, and its orificial patency only serves to perpetuate a discharge.

The failure to remove the upper ledge of bone between the meatus and tympanic attic is also frequently the cause of imperfect healing, as when operative measures cease, the upper meatal wall should be perfectly continuous with the upper attic wall, or the tegmen tympani, so that a bent probe touching the tegmen tympani can be pulled (still touching the bone) completely out of the meatus without meeting any bony obstruction. Unless this most important step is taken, and the attic destroyed as a separate entity, the diseased territory cannot be perfectly curetted, cleansed, and treated, and will always remain a focus of disease.

Another objection which is frequently raised is the possible bad effect upon hearing. While this result, with a properly executed operation, is a possibility, the writer believes its magnitude has been very greatly overestimated, and that a vast majority of cases will emerge from the operation with either uninjured or improved hearing. We have long since passed the time when the drum head and ossicles can be regarded as essential to hearing. No doubt, when in a reasonably healthy condition, they are a great assistance to the best hearing, but the writer believes that many people could hear much better without drum head or ossicles. For instance: The writer believes that a perforated drum head, embarrassed by tympanic adhesions and accompanied by necrosed and retracted ossicles, surrounded by fungating granulation tissue, so far from assisting hearing, actually impedes the transmission of sound waves to the labyrinth, and that the hearing of the individual will, in all probability, be improved by a removal of this obstructing pathological mass. Such are the conditions usually found to a greater or less extent in cases of chronic purulent otorrhœa, and forming the basis for the cheerful prognosis of good hearing capacity after the operation; and the results, in the writer's cases and in the cases of most other surgeons, fully corroborate the foregoing statements.

When surgeons drained the wound, both through the meatus and the unsutured mastoid opening, a forceful objection to the operation could be found in the extremely protracted healing and in the resulting deformity, consisting in an unsightly meatal opening, a lowered and protruding auricle, a disgusting postauricular scar, and, often, in a large and permanent mastoid aperture. As the operation is at present performed, however, the mastoid wound is entirely sutured at the time of operation, thus preventing a postauricular opening, and, by holding the parts up and in place, dispensing with the malposed auricle. A properly made Panse, Küster, Ballance, or other meatal flap does not deform the meatal opening, and assists greatly in the rapid lining of the operative cavity with new skin, and, when this is combined with the grafting of skin sections to the exposed bone, as recommended by Ballance, Dench, and others, little is left to be desired tending toward a perfect and satisfactory result. The writer's patients can usually leave the hospital in less than two weeks, and a thorough cure is generally effected in from four to eight weeks.

From the foregoing answers to some of the important objections to the radical mastoid operation, it will be seen that a great and favorable evolution of improved operative technics has taken place through the last few years; that the operation is gradually losing its terrors and disadvantages; and that conscientious, honest surgical work and investigation will soon quiet our fears by placing this operation in such a position of safety and assurance that its performance cannot be avoided by those pretending to do the best and most advanced aural surgery.

The foregoing pages of this fragmentary article have been devoted largely to a recitation of the principal objections to the radical mastoid operation, an attempt at answering these objections, and a few words of inspiration toward future work and investigation. The writer cannot leave the subject, however, without briefly reminding his hearers that purulent tympanic infections are responsible for about one half of the brain abscesses of the world, and that in the United States alone 4.000 otitic brain abscesses occur annually (this proportion is trebled in Germany); that chronic purulent otorrhœa is responsible for most of these; and that death occurs in about one to every thousand ear cases (of all kinds) that come under treatment. With an array of figures like these, we must inevitably recognize the importance of the subject, and we cannot and should not seek to evade surgical responsibility if chronic purulent otorrhœa is producing this significant mortality. Hundreds of cases of chronic purulent otorrhœa present themselves to us to be cured. Shall we be satisfied, with these statistics before us, with eternally, month after month and year after year, cleansing, drying, powdering, scraping these middle ears, when we must know that the real seat of the disease can never be even touched, except by the radical operation? Shall we shirk operative responsibility or enhanced labor? Or shall we not rather by study, investigation, and operative experience so perfect our knowledge, precautions, and operative technics that this great surgical procedure may be performed with practically no danger either to life or function, thus enabling us to perform our legitimate part in lessening the world's mortality? These questions must be settled by each of us according to our personal equation.

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HEADACHE IN RELATION TO DISEASES OF THE NOSE AND NASOPHARYNX.*

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Headache as a symptom in nasal and nasopharyngeal diseases dates back to the incipiency of rhinology as a specialty. To no one man does the glory of properly diagnosticating these headaches belong. It was a gradual development, following a more perfect knowledge of the anatomy of these parts and the invention of more efficient instruments, by the use of which such cavities might be examined.

For the head mirror or reflector and the small laryngoscope we are indebted to a number of men, each of whom did more or less to develop these valuable aids. First of these was M. Levret, a French gynæcologist, in 1743. It was a half century after him before Dr. Bozzini, the next who used reflectors, caused a sensation throughout Germany by announcing his invention for illuminating the various cavities of the body. Twenty years later we see Dr. Senn, of Geneva, and still a few years later Dr. Babbington, of England, gradually improving on the former instruments. These were still improved upon by Garcia, a Frenchman, and still more by Türck, of Vienna, but it was left to Professor Ozermak, of Pesth, to perfect these instruments, in 1857, and hand them down to us almost as we have them to-day. Rhinology as a specialty might be said to have had its beginning from that date; though it did not attain a conspicuous position in the profession till several years afterward.

The minute anatomy of the nasopharynx was not known until about the middle of last century. Some books published on rhinology as late as 1880 do not illustrate or mention all these cavities. We are indebted to Dr. Zuckerkandl, of Vienna, for a more perfect knowledge of the anatomy of the nose, and especially of the accessory sinuses.[1] He probably did more original anatomical work in the pneumatic nasal cavities than any other early investigator. His books, published in 1882, on Physiology and Anatomy of the Nose and Pneumatic Cavities would be a credit to a modern author.

With these few historical remarks I will pass to the subject proper, i. e., headache in relation to diseases of the nose and nasopharynx.

I have handed out a few sheets on which I have made a classification of the diseases of the nose and nasopharynx that produce headache. The first of these, as you will observe, is morbid conditions of the mucous membrane, under which heading we have acute and chronic rhinitis, and as subdivisions of acute rhinitis, we have simple, specific, and neurotic.

There are few conditions with which we are more familiar than with acute coryza, with its almost constant symptom, headache. Many of us have grown painfully familiar with it from frequent personal attacks. Morell Mackenzie, Seiler, Sajous, Hack, and many other early writers noted this constant symptom. Even Galen, writing in the second century, noted it; he says in lib. xiii: "For the most part, either a cold or moist distemper doth vitiate the head." It was not until about 1880 that the writers on headache in general medicine mention headache in relation to nasal diseases. Dr. Weatherhead, in his *Treatise on Headache*, published in 1841, does not mention a headache of nasal origin; however, he does give as the exciting cause of headache, under the title of "rheumatic headache," "exposing the head to a draft of cold damp wind; riding in a carriage with window down; sitting under skylight with head uncovered and in state of perspiration, etc." all which conditions we know to be conducive to acute coryza. Copeland, in his *Encyclopædic Dictionary*, of 1845, does not mention headache of nasal origin, except frontal sinusitis.

The associate symptoms in acute rhinitis are chilly sensations of the body; stuffy, full sensation in the nose and front part of the head, associated with more or less obstruction of the nasal canals; a burning dryness, followed by acrid watery discharge. These symptoms are so common, so constant, and so annoying that the patient, no matter how ignorant, can make his own diagnosis.

Headache with coryza is often the first symptom in some of the febrile diseases; but the conditions are so similar in each case, regardless of the cause, that they are not diagnostic, and we must wait for after symptoms to help us out. I will, with these remarks, dismiss the subject of acute rhinitis, feeling that headache, as one of its most constant symptoms, is too well known to deserve further discussion.

In specific rhinitis, in its incipiency, we have the symptoms of acute simple rhinitis, but of decidedly more exaggerated form. There is more pain, more headache, and greater constitutional disturbances. This is especially true in the glandular, gonorrhœal, and diphtheritic types. The other specific rhinitis conditions, the tuberculous, and those of lupus, leprosy, and larvæ may vary very much in their symptoms in dieffrent individuals. In some they are decidedly acute, while in others they are chronic. Headache is not so constant a symptom in chronic cases. In the acute forms, however, headache is almost always a prominent symptom and may be due to two causes: First, a local condition due to obstruction of the nasal canal from inflammatory changes; second, a constitutional condition due to infection from bacteria present.

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[1] *Med.-Jarhb. Wien*, 1880.

The associate symptoms in these specific conditions are so prominent and the pain so constantly localized that the physician's attention is directed at once to the source of irritation. His final diagnosis is made by the use of the microscope. This valuable aid is sometimes unnecessarily deferred. However, the diagnosis of gonorrhœal rhinitis was made, and very probably correctly so, long before our knowledge of bacteria or the modern microscope. Boerhaave reports a case in 1751, Sigmond one in 1852, and Edwards one in 1857.

We come now to the neurotic type of acute rhinitis. Under this heading we have placed hay fever, asthma, and hyperæsthetic rhinitis.

The symptoms of hay fever are those already enumerated in acute coryza, the difference being in the less febrile symptoms, the longer duration of hay fever, lasting during a period of two or three months, and its tendency to recur annually at the same time of the year. It is especially the more annoying, in that there is so little relief from the stuffiness and head symptoms for so long a period. The symptoms are so constant and so similar in different individuals and recur with such exactness each year that the diagnosis is usually made, and various means for relief tried before we see these patients. Hay fever, like influenza, is so often alleged when not present that its diagnosis should be made with more care than is customarily used. A few years ago it was quite popular to call every slight coryza influenza, and this same tendency has caused the laity to call each unduly prolonged attack of cold "hay fever."

I hope I may be pardoned for digressing enough here to mention the experimental work done by Dr. Meyer, of New York, and Dr. Alexander McCoy, of Philadelphia, with Dr. Dunbar's antitoxine serum in hay fever. Dr. Meyer's reports were flattering, but Dr. McCoy's were so very good as to be almost incredible. I hope to be able to give it a trial next hay fever season.

The modern rhinologist feels that he has been robbed of his own if he examines an asthmatic's nose and finds no polypus, no deflected sæptum, stenosis, spur, or sensitive area acting as an exciting cause. The first symptoms of an asthmatic paroxysm are usually those of a cold—sneezing, watery discharge from the nose, nasal stenosis, headache. The stenosis becomes worse, mouth breathing is necessary, and the paroxysm is complete.

There are two forms of headache in asthma to which I would like to invite your attention. The first is rather acute and often severe, due to pressure in the nasal canals from stenosis. The second form is a dull, languid headache, which occurs after a night spent in wrestling with an asthmatic attack. This condition is probably due to the character of the inhalation which has been used to relieve the paroxysm. It is also probable that the loss of sleep and a night spent in a close, stuffy room are in part responsible. I now have under my care a young lady whose first symptom of an asthmatic attack is a frontal headache, and last winter I had under my care a law student who was an asthmatic and who had been in the habit of burning certain pastilles for relief, which always caused him to have a headache on the following day.

Hyperæsthetic Rhinitis.—Hyperæsthetic rhinitis, by most authors, is classified as hay fever, but there is a series of symptoms in hyperæsthetic rhinitis, which, while related to the hay fever type, are distinctly different from it. In hay fever we always have a stuffy and more or less stenosed nasal canal, while in hyperæsthetic rhinitis this is not at all necessary. We may have sneezing, a peculiar dry, aching sensation, hydrorrhœa without stenosis. The special diagnostic point in these hyperæsthetic cases is the test with the applicator. By passing the cotton covered end of the nasal applicator into the nose and gently touching the different areas we shall find what is known as the sensitive areas; areas which, when touched, set up a violent fit of sneezing or coughing, or cause a frontal headache. Great credit is due Hack, of Paris, for his work along this line. He has probably done more than any other man to call our attention to these nasal reflexes and head symptoms in hyperæsthetic rhinitis. Before dismissing this topic we feel that we must mention the work of Morell Mackenzie and Lennox Browne, of London, and of Bosworth, of America.

We now wish to invite your attention to chronic rhinitis as a factor in producing headache. Under the head of chronic rhinitis we have hypertrophic rhinitis, atrophic rhinitis, fœtid and nonfœtid.

Hypertrophic rhinitis, next to simple acute rhinitis, is the most frequent cause of catarrhal headache, and its symptoms are so constant and so well understood that it is seldom mistaken for any other condition. Here we have more or less nasal stenosis, usually worse at night or in a recumbent posture, which stenosis is unduly exaggerated with the least exposure to cold drafts or sudden changes of the temperature, and associated with this is more or less mucous discharge with a dull, heavy, frontal headache. This is a condition so well known, both to the general practitioner and to the specialist, that its further discussion does not seem necessary.

Under the head of atrophic rhinitis I have mentioned the fœtid and non-fœtid forms. That there are two forms of atrophic rhinitis may be questioned, but this classification seems appropriate for our purpose.

It has been my experience that we have very little headache due to true atrophic rhinitis, fœtid, and when headache still continues in these conditions, after the nasal vault has been cleansed of all crusts, etc., I usually suspect some one of the sinuses to be at fault. The case is different in atrophic rhinitis, non-fœtid. Here we not infrequently find headache, and often it is very annoyingly persistent. If there happens to be present any rhinologist who has practised in a high and dry region, he will, I think, be ready to agree with my remarks. I have seen in high and dry arid altitudes a drying and parching of the nasal and postnasal mucosa, in cases in which the nasal canals were unduly patulous, to such an extent that the mucous membrane would crack open, as it were, causing minute fissures which were exceedingly painful, and headache was a most constant symptom. In these patulous nostrils, where the middle turbinate happens to be deflected into the middle of the nasal canal, I should be disappointed to find an absence of head symptoms. I have now under my care a lady with a too patulous nose and associated granular pharyngitis, caused, she asserts, from a too free use of the galvanocautery some ten years ago, who has as a first symptom of cold a frontal headache without stuffiness of the nose.

We sometimes see reported reflex headache due to adhesions or cicatrix following the use of the galvanocautery; fortunately the above is as near such a case as I have met with, and I think we shall see fewer of these in the future, as the specialists have grown more conservative in the use of the cautery in the nose.

Rhinitis caseosa is the last named topic under this heading, and its name tells what it is. We have here a cheese-like deposit in or about the middle meatus. It may be due to diseased conditions of the middle turbinate, but it is more probably due to chronic diseased condition of one of the sinuses, or especially, of the ethmoid cells, It is fortunately a rare condition, as its treatment is usually tedious and often operative.

Morbid conditions of the osteocartilaginous frame work are fruitful sources of nasal headache. Under this heading we have deflected sæptum, thickening of sæptum, pressure of the sæptum, exostoses, synechia, and caries.

Deflected sæptum causes headache in two ways: First, by a stenosis of one side of the nose, causing pressure on the turbinates with a compensatory stenosis of the other side. In the second place, a stenosis of one side with a too patulous opposite side with middle turbinate directly in its channel. These malpositions of sæptum and turbinates are conducive to catarrhal changes, both in nose and nasopharynx, with their varying reflex neurosis. It is in these conditions that we expect to find those "sensitive areas," so well described by Hack and Bosworth.

Thickening of the sæptum produces its symptoms by obstructing the nasal canals and by pressure on the turbinates, and it is here that we usually find the exostoses and synechiæ. Lennox Browne has reported in his latest book a number of cases of reflex headache relieved after removing exostoses, and others where relief was obtained after operations relieving synechiæ.

Pressure on the nasal sæptum is given as a cause of headache. It would probably be more correct to say turbinal deviation and sæptal pressure. As a rule, the middle turbinate is at fault here, as it is certainly more sensitive than the inferior turbinate. Where there is undue pressure on this turbinate, whatever the cause, we may expect some reflex symptom. I have noticed for a long time that in those cases where there is most suffering from nasal neurosis we find the middle turbinate blocking up the upper nasal canal and resting against the sæptum; and I am inclined to think that the sæptal pressure is not always necessary to cause the reflex headaches. I have seen a number of cases in which the turbinal sæptal pressure did not seem to be so much at fault as the position of the middle turbinate. I would certainly expect to find nasal neurosis in cases where the middle turbinates are situated low down and directly in the upper nasal canal. Its position here is such as to catch the offending particles in the atmosphere, and is conducive to a low grade of catarrhal inflammation which begets the hyperæsthetic condition with its various manifestations.

Caries of the osteocartilaginous frame work is usually syphilitic; however, it may have its origin in some other constitutional condition. Headache with any manifestation of tertiary syphilis is so common as not to demand any special notice here. We usually get a history of syphilis, and our duty is clear.

Sinusitis.—Headache is almost as constant a symptom in sinus inflammations as is unilateral purulent discharge. This is especially true of frontal sinus affections and perhaps not less true in the case of sphenoidal and ethmoidal. In many cases headache is so prominent a symptom as to overshadow the real affection, and it is not recognized until many other causes of the head symptoms have been suspected. In inflammation of the maxillary sinus we usually get a unilateral headache—a pain beginning in the maxillary affected, after affecting the associated eye, and extending to the head. The associate symptoms here are usually so much more prominent than the headache that the *casus morbi* are easily recognized.

The acute stage of all these sinus inflammations is much the same. They are as a severe cold with an unusual amount of pain in the head, which localizes itself over the sinus involved. This is especially true of the frontal sinus and the ethmoid. We have less head symptoms in the maxillary inflammations than in the others. Headaches are not prominent symptoms in chronic antrum troubles, but this statement certainly does not apply to any other of the sinuses.

The head symptoms are much the same in inflammation of the ethmoidal cells and of the frontal sinuses. It is a fact that when one is involved the other is mentally affected. There is probably less disturbance generally and less headache where the ethmoidal cells alone are involved, and the pain is usually more nasally localized. In frontal sinus inflammation frontal headache is always present, increased or decreased by posture; worse in the mornings, and associated with supraorbital neuralgia, lacrymation, nasal stenosis, and unilateral purulent discharge. Headache is here often the most distressing symptom, and the one for which we are consulted.

The sphenoidal sinus being so difficult of access, its inflammations are often overlooked. A purulent nasal discharge, not accounted for by the other sinuses, and especially where pus is found high up in the nasal fossa, bottling the posterior portions of the turbinates, and dripping into the nasopharynx, offers a strong suggestion of sphenoidal inflammation. It is very probable that many so called idiopathic headaches, associated with chronic, "incurable" catarrh, have their origin in the sphenoidal sinus.

Of the benign growths of the nasopharynx which may cause headache might be mentioned adenoids, polypi, syphiloma, enchondroma, papilloma, osteoma, and rhinoscleroma.

The last four of these may be dismissed with a few words. They all cause headache, when they cause it at all, either by pressure or stenosis. These are conditions which are so seldom seen as to deserve being only mentioned.

Syphiloma is very much more common, and is nearly always associated with headaches. It is not seen in this country so often, but it is not an infrequent occurrence in such countries as Mexico, where a very high percentage of the lower classes are syphilitic, and still a larger percentage go untreated. Its diagnosis is not usually difficult. It is to be differentiated from malignant growths, and usually a history of syphilis, or other manifestation of same can be obtained; when not, the therapeutic test, or if haste demands it, the microscope, can be brought to our aid.

There are two stages in the growth of the polypus in which it is especially liable to cause reflex symptoms, such as asthma, headache, etc. At the very beginning it seems that the polypoid tissue is often extremely sensitive and causes pain and headache. This is particularly true where the polypus arises from a centrally placed middle turbinate. The second stage in which the polypus causes trouble is when it becomes so large as to cause stenosis, pressure, and displacement of the normal parts of the nose. When one removes from two to twenty polypi from a person's nasal chambers he will not wonder that the patient had headache and other nasal neuroses, but will wonder how he could have been free from them.

In treating of the benign growths which cause headache I have purposely left adenoids, the chief of sinners, to the last. All classes of medical men recognize the baneful effects of these growths. There is no minor operation in surgery so fruitful of good results and so gratifying, alike to the doctor and the patient, as adenotomy. To see one of these little strugglers for breath, shut his never before closed mouth, straighten up his prematurely humped back, and develop a heretofore unknown mental capacity, after one of these operations, is a great pleasure to all concerned. We feel that this condition is so well known as not to need discussion. The experienced clinician can often make a diagnosis of these cases at a distance. The open mouth, pinched face, narrow front teeth, shallow chest, and stooped shoulders, the old face and stunted child, all cause him to suspect this condition. The history of a snoring sleeping with open mouth, nightmares, and morning headache, with foul breath, accompany this condition. The diagnosis is confirmed by the postnasal mirror or digital examination.

The malignant growths of the nasopharynx which cause headache are carcinoma and sarcoma. Headache with malignant diseases of the nasopharynx may be due to two causes: First, to pressure on nasal membranes from its rapid growth, and, secondly, a constitutional condition due to cancer cachexia. These malignant growths most usually originate in the sinuses, and extend to the nasal chambers. There we have some sinus and head symptoms before the nasal canal proper is invaded. When they originate in the nose they cause reflex symptoms early if they are located about the middle or superior meatus; otherwise they do not. These symptoms are increased, as would be expected, as the growth increases, and more especially when it extends to the meninges.

A STUDY OF HEADACHE IN RELATION TO DISEASES OF THE NOSE AND NASOPHARYNX.

- I.—Morbid conditions of the mucous membrane.
  - Acute rhinitis
    - Simple
    - Specific
      - Diphtheritic.
      - Gonorrhœal, Glanders
      - Tuberculous, Leprosy.
      - Lupus.
      - Larvæ.
    - Neurotic
      - Hay fever, asthma, hyperæsthetic.
  - Chronic rhinitis
    - Hypertrophic rhinitis.
    - Atrophic rhinitis
      - Fœtid.
      - Non-fœtid.
    - Rhinitis caseosa.
- II.—Morbid conditions of the osteo-cartilaginous frame work.
  - Deflected sæptum.
  - Thickening of the sæptum.
  - Exostoses.
  - Pressure of the sæptum.
  - Caries.
  - Synechia.
- III.—Sinusitis.
  - Ethmoidal
  - Frontal
  - Maxillary
  - Sphenoidal
    - Extension to Brain.
- IV.—Growths.
  - Benign.
    - Adenoid.
    - Polypi.
    - Syphiloma.
    - Enchondroma.
    - Papilloma.
    - Rhinoscleroma.
    - Osteoma.
  - Malignant.
    - Carcinoma.
    - Sarcoma.
- V.—Foreign Bodies.
  - Rhinoliths.
  - Extraneous substances.

Foreign bodies in the nose, rhinoliths or extraneous substances, are capable of exciting headache. The rhinolith is usually situated in the middle meatus and is sometimes of enormous size. They usually arise from a time deposit. However, they may have some small extraneous substance as their origin. They cause headache by pressure on sensitive parts, such as is produced in any form of stenosis. Stenosis with headache being the chief symptoms in this rare disease, its true nature is easily overlooked.

As a rule, foreign bodiês proper cause more or less discomfort and unilateral nasal discharge, until they are removed. A few years ago a farmer brought his son to me on account of frontal headache and an offensive mucopurulent discharge of the right nostril. On examining the right nostril I found the mucous membrane inflamed, so much so as completely to obstruct the nasal canal. After the application of cocaine, I was enabled to see a foreign body in the middle meatus, which, on removal, proved to be a cotton seed. It is needless to say that all symptoms disappeared after its removal. If the foreign body lies in the middle meatus and is large enough to cause pressure between turbinate and sæptum we are apt to have headache as a result.

REPORT OF A CASE OF SIGMOID SINUS THROMBOSIS; OPERATION WITHOUT LIGATION OF THE INTERNAL JUGULAR VEIN; RECOVERY.*

By GORHAM BACON, M. D.,
NEW YORK,
PROFESSOR OF OTOLOGY, COLLEGE OF PHYSICIANS AND SURGEONS, COLUMBIA UNIVERSITY.

The patient, Sarah H—Irish, 33 years of age, was admitted to my service at the New York Eye and Ear Infirmary on February 13, 1904.

Previous History.—She had measles, scarlet fever, and whooping cough when a child, otherwise she has always been healthy and strong, except for an attack of la grippe, which she had four years ago, followed by acute mastoiditis on the right side. She was under my care at that time and I performed the usual mastoid operation. She has never had any trouble with that ear since and the hearing is good.

The present illness began three weeks ago, when she had another attack of la grippe, followed by a severe and throbbing pain in the left ear and side of the head. Four or five days later there was a discharge, profuse and thick at first, and tinged with blood. Since the discharge began the pains have become less severe, although the patient has never been entirely free from them. She noticed tenderness and a slight swelling behind the ear about ten days ago.

Examination.—Right mastoid shows an old depressed scar from a previous operation. The drumhead is thickened and retracted. Left ear: mastoid tenderness present over the antrum tip, and on the bone behind the tip. The external auditory canal contains a moderate amount of thin, purulent discharge. There is sagging of the posterior and upper canal wall. A fair sized perforation is seen in the drumhead posteriorly.

The heart and lungs were examined and found to be normal.

February 14th, operation.—The usual incision was made behind the auricle down to the bone, while a second one was carried backwards from a point on a line with the external meatus. A perforation was found in the bone. The mastoid cells were thoroughly exposed and found to be filled with pus. The mastoid tip was removed and the sigmoid sinus was exposed for one inch below the knee. It was found covered with granulations, and the bone was removed until a healthy sinus wall was found. In doing this, however, the sinus wall was accidentally injured and a good flow of blood followed.

The antrum was exposed, the posterior incision was sutured, and the wound was packed with iodoform gauze and bandaged. When admitted to the hospital, the patient's temperature was 99.5° F., and the case progressed favorably till February 20th, when the temperature rose to 102°; pulse 116; respirations 24. On February 21st the temperature was 102.3° at 9 a. m., but fell to normal at 9 p. m. It reached 103.5° at 6 p. m. on February 22nd, and, during the previous night, the patient had considerable pain in the ear and wound. The wound has been dressed frequently and looks very well. The patient has had slight nausea, but no vomiting. February 23rd, 9 a. m., the temperature was 101.5°; pulse 84; respirations 22. The patient was very restless during the night, and complained of a great deal of pain on the left side of the head. This was relieved by changing the dressings. She had slight nausea at times, but no chills or vomiting.

As the patient was having a septic temperature and as the wound seemed to be in a perfectly healthy condition, I decided to open the sigmoid sinus.

February 24th, second operation.—The sinus was more fully exposed towards the torcular. The sigmoid sinus was easily compressible and pulsated. After compressing the sinus, above and below, a free incision was made between these two points.

There was a free flow of blood from the upper end, but from the lower end there was no flow until a curette was introduced down to the bulb. Even then the flow was very moderate. No distinct thrombus was seen, but one was evidently forming at the bulb.

The temperature came down to 100° on the day following, but on February 26th it gradually rose to 104°. From that time on, however, the temperature gradually fell till March 1st, when it was normal.

March 4th. The patient was comfortable and took her nourishment well and was gaining steadily.

March 19th. The mastoid wound was granulating nicely. The perforation in the drumhead was closed and the landmarks were reappearing. The patient left the hospital on that date, but was to return for treatment as an out patient. April 1st. The hearing was the same on each side, about 15 inches for the watch; she heard conversation as well as she ever did. Her recovery has been uneventful.

Remarks: This case seems to me to present several interesting points. In the first place, it is very probable that the infection of the sigmoid sinus was due to the accidental injury of its wall during the mastoid operation, although it is possible that the infection had already reached the sinus in the usual way. Some writers seem to think that it is a matter of small importance whether the sinus is opened during the mastoid operation. This view of the case seems to me to be a dangerous one. In the second place, although there was but a slight flow of blood from the bulbar end, I did not ligate the internal jugular vein in spite of the fact that the temperature reached 104° F. the day following the operation.

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* Read at the annual meeting of the American Otological Society, held at Atlantic City.

If we operate in a case of sinus thrombosis and find that the clot has not broken down, I do not consider that it is at all necessary or even wise to ligate the internal jugular vein, even if we do not get a free flow of blood from the bulbar end.

I have already reported a number of cases where this line of treatment has been successfully followed and I fail to see the necessity in such cases of subjecting a patient to the additional shock of ligating and excising the internal jugular vein.

This patient did not present the usual symptoms of sinus thrombosis, as there was no chill or vomiting. She suffered from sepsis, which was not relieved until the parietal clot in the bulb had been removed with a curette.

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Doctors' Fees in England.—The specialists must be divided into two distinct classes—the surgeon proper and the pure physician. The former unquestionably gets big fees in ratio to his reputation. Sir Frederick Treves has only to name his fee to the millionaire with appendicitis. With the fear of death before his eyes he will write his check gladly. When he has recovered he will often grumble, if he does not boast. A younger and less known man will perform the same operation for a tithe of the cost; but the public, with death staring them in the face, will have the man with the big name, regardless of expense, according to the London *Daily Mail.*

But the pure physician is an entirely different matter. His fees are standardized, not by act of Parliament, but by that autocratic body, the Royal College of Physicians. His fees for consultation at his own house are fixed at two guineas the first visit and a guinea for each subsequent one. For consultations away from home he receives a fee at the calculated rate of two thirds of a guinea a mile. Elstree, twelve miles out of town, is *ipso facto* eight guineas; Liverpool (201 miles) is 134 guineas, and so on pro rata. But it must be remembered that nowadays all the big provincial centres have their own specialists, and the town man is very seldom sent for, unless he be one of the very biggest names and the case desperate and rich.

If the physician should accept more, he transgresses that professional fetich, "medical etiquette," and is branded a quack by his less lucky brethren.

Moreover, when he arrives at a sufficient standing in the ranks of his profession, the Royal College of Physicians will not elect him to their all important fellowship, the crowning qualification and highwater mark of his calling.

HEREDITARY ABNORMITY OF THE LITTLE FINGER.

By GEORGE THEODORE MUNDORFF, M. D.,
NEW YORK.

The present paper is the result of an examination of the fingers of 38 persons, all related and descendants from one individual, and is such a remarkable instance of hereditary transmission of an anatomical peculiarity, that the writer cannot forbear asking space to publish it. Clinically, the deformity about to be described resembles the peculiar condition known as Dupuytren's contraction, and for present purposes, will so be regarded. The consensus of opinion regarding the ætiology of this malady appears to be that the prime and predisposing cause is to be found in a general dyscrasia, such as rheumatism, gout, diabetes, chronic lead poisoning, and perhaps also syphilis, though it is believed that local causes, such as traumatism, very frequently play an important part in the production of this affection. Certain morbid conditions of the nervous centres, too, are responsible for this peculiar deformity of the fingers. The striking feature in the appended diagram points to a strong hereditary influence. Syphilis, rheumatism, gout, diabetes, lead poisoning, and diseases of the central nervous system may be excluded as possible ætiological factors. The cases agree with each other in the direction of the deformity, the little finger of one or both hands being in a state of permanent flexion. To be more exact, the condition should be described as follows: while the finger is fairly well extended, the axes of the first and second phalanges do not lie in the same plane, but meet at the articulation, in a more or less acute angle. This condition, probably, is due to a contracted state of the palmar fascia, although it is possible that the real cause is a very much shortened flexor tendon. Thus far, dissection of the part has not been possible, and we must content ourselves with a mere surmise as to the true anatomical condition present.

In the members of this family, consisting of grandfather, children, and grandchildren, 38 in all, the deformity occurs in 14 cases. In 11 cases the deformity occurs in one hand, and in 3 cases it occurs in both hands. In 10 cases the little finger of the right only is abnormal, and in one case the little finger of the left hand only is abnormal. It is impossible to learn whether the deformity existed in the grandmother's case; the daughters-in-law are all normal. It should be mentioned, too, that each son of Johann M. suffers from hallux valgus. This deformity is not transmitted to the grandchildren, except in one case.

- Johann M., normal.
  - Peter M., left abnormal.
    - Anna M., normal.
    - Albert M., both hands (has a child with same deformity).
    - George M., right abnormal.
    - Kate M., normal.
    - Johanna M., normal.
    - Theresa M., normal.
    - Peter M., both hands.
    - Charles M., normal.
  - Jacob M., normal.
    - Anna M., normal.
    - Rose M., right abnormal.
  - Theodore M., right abnormal.
    - Theodore M., right abnormal.
    - John M., normal.
    - Charles M., right abnormal.
    - Anna M., right abnormal.
  - John M., right abnormal.
    - John M., right abnormal.
    - Lizzie M., normal.
    - Christina M., normal.
    - Martha M., normal.
    - Kate M., normal.
    - Joseph M., normal.
  - George M., normal.
    - George M., right abnormal.
    - Arthur M., normal.
    - Edward M., normal.
    - Bernard M., normal.
    - Hubert M., both hands abnormal.
    - Frederich M., right abnormal.
    - Wilhelmena M., normal.
    - Cecelia M., normal.
  - Albert M., normal.
    - Lena M., normal.
    - Albert M., normal.
    - Josephine M., normal.

THE FLY AS A CARRIER OF TUBERCULOUS INFECTION.*

By E. H. HAYWARD, M. D.,

DETROIT, MICH.,

BACTERIOLOGIST TO THE SCHOOL BOARD OF HEALTH.

The fact that bacteria are the ætiological factor of the majority of the most fatal diseases is now well established, and the efforts of the sanitarian are turned towards determining the avenues of transmission and methods of combating the spread of these infections. The writer, while investigating the possibility of the spread of infection through the fæces of flies feeding on the excreta of typhoid patients, and noticing the number of flies that flock around the cuspidors of those suffering from pulmonary tuberculosis, was led to a series of experiments in this connection. The flies used in these experiments were the common house fly (*Musca domestica*) and the blue bottle (*Musca cæsar*). In each experiment fourteen flies were used, which were kept confined twenty-four hours previously in cages made of wire screen, and fed on milk; clean cover glasses were introduced into the cages and on these they willingly defæcated, after which the covers were stained by the Ziehl-Nielsons method to determine if tubercle bacilli were present or not. The results were negative.

The first experiment was made on flies caught feeding on the bottles containing tuberculous sputum that came into the laboratory for examination. These were supplied with clean cover slips which they speedily soiled. Sixteen of the covers, ten of which contained tubercle bacilli, were stained and examined. The next two batches of flies were fed on tuberculous sputum in which the bacilli had previously been demonstrated. The sputum was placed on watch glasses and covered with a fine wire screen. On this screen the fly could walk without getting its feet or wings in the sputum and could feed through the meshes. The flies were also fed on milk, but they seemed to prefer the sputum. Six hours after feeding, clean cover glasses were introduced and left from three to four hours, during which time considerable fæces were deposited on them. They were then withdrawn and stained, and all showed tubercle bacilli. The flies apparently suffered from diarrhœa after feeding on the sputum, as they defæcated more after the infectious material was ingested than before.

In the fourth experiment, the same conditions were observed, but the flies were watched and, as soon as a cover was soiled, it was withdrawn and examined with the same results as the preceding experiment. The flies all died from two to three days after the infectious material was introduced, although the controls fed on milk lived from eight to ten days in confinement.

Culture plates, made of the fæces on glycerin agar and incubated two weeks, showed a growth of tubercle bacilli, thus proving that the vitality of the tubercle bacillus is not impaired by passage through the intestinal canal of the fly. Post mortems were made from each batch and smears from the stomach and intestines showed large numbers of tubercle bacilli.

The fæces were also rubbed up with sterile water and injected into the peritoneal cavity of guinea pigs, which developed tuberculosis.

In view of the omnipresence of the house fly and the indiscriminate manner in which it deposits its fæces, the opportunity for the spread of infection is manifest, particularly when it is taken into consideration that this material is charged with all varieties of pathogenic bacteria. The fact that the tubercle bacillus may be transported from the focus of infection in the lung of one person to the alimentary tract of another in the course of a few hours is highly suggestive of a common mode of transmission. Although the bacilli pass through the alimentary canal of the fly, their virulence is apparently unaltered and, therefore, we must consider such infections almost direct.

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* Read before the Detroit Pathological Society.

This report is a preliminary one, to be followed by others with more exhaustive experiments.

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Issues and Events.

SEVERAL NEW POINTS CONCERNING THE THEORY AND PRACTICE OF IMMUNITY.*

By PROFESSOR A. WASSERMANN,
UNIVERSITY OF BERLIN.

(ABSTRACT.)

In the study of immunity the theoretic-scientific side is most intimately connected with the practical. Of paramount importance for the former is the so called side chain theory of Ehrlich, according to which the specific substances developed in the serum by immunization are nothing else than those portions of the cells of the living organism for which the substances against which we immunize possess a specific affinity. The same substance, produced, for example, by tetanus toxine when this gains access to the central nervous system, neutralizes the tetanus poison and so protects the central nervous system when it circulates outside of the same, in the blood; for in the latter case it satisfies the affinity of the tetanus poison before this reaches the susceptible organ.

Those portions in the organism for which a substance possesses such specific relations Ehrlich calls "*receptors;*" and the process just described is explained by this author as follows: The substance is first bound to the organ; as a result of this binding, in accordance with Weigert's law, an overproduction of the receptors ensues; the receptors thus produced in excess the organ thrusts off into the blood as superfluous.

Accordingly three stages must be distinguished:

1. The union of toxine and receptor.

2. The overproduction, i. e., the increase of the receptors.

3. The thrusting off of these increased receptors into the blood.

Heretofore the efforts made to furnish experimental confirmation that these three stages actually exist have been unsuccessful. The lecturer, however, has now succeeded in this. He employed a tetanus poison which had become so weak as to be no longer toxic. When an animal was injected with this non-poisonous toxine, and a short time later with fully virulent tetanus toxine, it was found that then more tetanus toxine was necessary to kill this animal than a normal one. This was simply because, by means of the previous injection of non-poisonous toxine ("toxoid"), part of the receptors had already been occupied. When the experiment was made in such a manner that some time (one to three hours) was allowed to elapse after the injection of the non-poisonous toxine, it was found that now less tetanus toxine was required to kill the animals than is required for normal animals; for in this case, in conformity to the theory, an increase of the receptors (the susceptible portions of the central nervous system) had taken place as a result of the previous binding. The existence of these three stages can thus be demonstrated experimentally.

The second topic which the lecturer briefly discussed was that concerning the action of antitoxines on toxines. In this connection attempts have been made during the past year to apply to these substances the doctrines of physical chemistry and of the dissociation of solutions. The lecturer has succeeded in showing in the living organism that in this action several stages can be distinguished. The first stage consists in this, that a loose combination ensues between toxine and antitoxine. This loose combination gradually and steadily becomes firmer. The experiment by which the lecturer has proved this is as follows: It is to be remembered that tetanus *toxine* is absorbed by the organism through the nerves and not by way of the blood (serum); the *antitoxine* exclusively through the blood. If tetanus toxine and tetanus antitoxine are mixed in a flask, and if the mixture is injected into the hind paw of a guinea pig, the animal will remain free from tetanus. If, however, the same experiment is made on a guinea pig whose hind paw has shortly before been injected with adrenalin, so that the capillaries are contracted, the injection of the same mixture which was innocuous to the normal animal will cause tetanus in this adrenalin guinea pig. This is because the adrenalin has blocked the path through which the antitoxine can be absorbed, whereas the nerve path, for the toxine, is left open. The toxine therefore tears itself loose from the antitoxine, follows its path of absorption to the central nervous system, and causes tetanus. This experiment, however, succeeds only when not too long a time has elapsed after making the mixture of toxine and antitoxine; not over one hour. If a longer time is allowed to elapse, tetanus will not be produced even in the adrenalin animal; for after such longer time the combination of the two substances has become very firm. In the action of antitoxine on toxine, therefore, we are dealing with the effect of pure chemical affinity, which increases with time.

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* The author's abstract of an address delivered before the New York Pathological Society, September 28, 1904. The entire address will appear in a later issue.

Of the practical questions in immunity, the lecturer desires to mention the importance of producing so called "polyvalent," or as he prefers to call them, "*multipartial*" sera. According to Ehrlich's theory every single part of a body against which we can immunize corresponds to a specific counter group, the receptor of the living organism. Now it can readily be shown that the body of certain bacterial species is not a simple homogeneous mass, but is composed of several parts. Corresponding to this the serum is made up of the sum of the so called "partial" elements. In certain species of bacteria, e. g., *streptococci, Bacterium coli, hæmorrhagic septicæmia,* and others, these "partial" elements in the bacterial body may fluctuate individually; i. e., there are races which biologically are differently constituted from other races of the same species. A practical consequence of this is that when an animal is immunized with a single culture of this bacterial species, a serum is obtained which acts only on this particular culture, or on a few others of the same species; it does not act on all. In practice, therefore, we are compelled to make such sera by means of a large number of cultures of the bacterial species in question. In this way we obtain a large number of "partial" elements, i. e., we make "multipartial sera." These sera act on all, or on the large majority of, cultures of the bacterial species in question.

Such behavior is especially observed in a new kind of diphtheria serum to which the lecturer recently called attention. The diphtheria serum now in use is purely antitoxic, i. e., it acts only on the poison secreted by the diphtheria bacilli. The lecturer showed that it is possible by a certain method of immunizing animals to obtain a different kind of diphtheria serum, one which specifically affects the diphtheria bacilli themselves, or at least substances present in them.

In this connection Schwone, of Vienna, was able to show that in order to obtain a serum which acts on all cultures of diphtheria bacilli, it is necessary to immunize with a large number of different cultures of diphtheria, not merely with a single one, for in diphtheria bacilli also the composition of the protoplasm differs somewhat according to the cultures.

It occurred to the lecturer, as also to Martin, of the Pasteur Institute, that this new diphtheria serum could perhaps find practical application in causing the diphtheria bacilli to disappear more rapidly from the throats of convalescents and healthy children. As is well known, the bacilli often remain for weeks after the subsidence of the symptoms. For this purpose the lecturer, as well as Martin, dries the serum *in vacuo,* pulverizes it, and then has it formed into pastilles, or, in cases of nasal diphtheria, has the powder insufflated into the nose. The action then is this, that the diphtheria bacilli in the nasopharyngeal cavity are agglutinated. After this has occurred, the nasopharynx is rinsed out with an indifferent fluid in order that the bacilli clumped together in masses may be removed.

In this way it is easy to remove the greater number of the diphtheria bacilli, and the organism is thus enabled more rapidly to make an end of those remaining. As a matter of fact, the clinical results thus far have been very favorable. The diphtheria bacilli disappeared rapidly, so that it is to be hoped that this new kind of serum will find extensive practical application and prove of considerable importance in the prophylaxis of diphtheria.

In the question of the active immunization of man with dead cultures against certain infectious agents, it would appear that this principle of "multipartiality," i. e., the employment of various cultures of one and the same bacterial species, may become important.

This shows us how, in a number of points in this complicated subject, theoretical science and practical application go hand in hand.

Therapeutical Notes.

Pain in the Ear.—*Journal des praticiens,* for August 27, 1904, supposes a physician to be called to see a patient complaining of a pain in the ear. The physician is without an aural speculum or other instrument. He finds no dental caries, no tumors, no hysteria, or history of syphilis. He cannot tell if there is an abscess, if the tympanum is involved, or whether there is a diffuse external otitis. While deferring a diagnosis until the next day, he finds that his patient demands immediate relief.

The application of half a dozen leeches in front of the tragus may relieve pain. Warm boric acid solution may be dropped into the ear, allowed to remain ten minutes, and repeated every hour or two. In the interim, cotton, saturated with warm carbolized oil, 1 part in 20 may be introduced into the ear, and the organ covered with hot compresses. When the patient wishes to retire, he may place in the ear a piece of absorbent cotton, saturated as before or use the following mixture:

℞ Morphine hydrochloride....½ gramme (7½ grains);
Cocaine hydrochloride.......1 gramme (15 grains);
Distilled water............20 grammes (²/₃ ounce).
M. Use six drops, warmed at night.

The following may be substituted:

℞ Morphine hydrochloride............30 centigrammes (4½ grains);
Atropine sulphate.....10 centigrammes (1½ grain);
Distilled water............15 grammes (½ ounce).
M. Use six drops, warmed at night.

If, after two days of such treatment, the physician should discover an abscess, he would, of course, incise it deeply. If not, the aural speculum should be used and care taken not to permit the development of an acute otitis media, which is heralded by increased pain, insomnia, deafness, and fever. These symptoms call for paracentesis of the membrana tympani.

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THE ILLINOIS CIRCULAR ON CONSUMPTION.

Among the sanitary organizations that really do something toward providing the people with information we must accord a high place to the Illinois State Board of Health, a body to which both the medical profession and the population at large are deeply indebted. The board's circular on *The Cause and Prevention of Consumption*, first issued in July, appears now in the form of a third edition. We learn that the demand for copies of this circular, not only in Illinois, but also in almost every State of the Union, has been remarkable. This is not to be wondered at when we reflect upon its simple and cheering words to consumptives.

One of the board's chief purposes in the preparation of the circular has been that of disabusing the public mind of the conviction that any particular climate is indispensable to the consumptive's recovery. Professional opinion has largely escaped from the notion that the climatic element is all-important in the treatment of pulmonary tuberculous disease, and the circular cogently impresses this fact upon the popular comprehension by pointing out the encouraging results obtained in the sanatoria of the States of New York, Pennsylvania, and Massachusetts and by declaring that those institutions are under no more favorable climatic conditions than are easily attainable in Illinois or in almost any other State. We may all readily endorse this teaching without in the least abandoning the idea that certain climates are to be preferred for consumptives for the reason that they render the modern treatment easier to carry out.

The circular not only tells the victim of pulmonary tuberculous infection how he should conduct himself in order to recover his own health; in addition, it instructs him convincingly in the measures that he is in duty bound to take to guard against spreading his disease among others. The epigrammatic "No spit, no consumption," that runs through the pages, can hardly fail to prove properly impressive. It is reenforced by pictorial reproductions of certain "signs of the times" in the form of placards prohibitory of spitting in public—all, we must admit, more forcible than our halting New York declaration that spitting on the floor of a car is "unlawful." At the same time, the consumptive's inability to avoid spitting, save by the dangerous alternative of swallowing his sputum, is fully recognized, and he is informed as to the proper management of expectoration. On these and on all other practical points the circular is explicit and impressive, and this is chiefly due to the plain language employed. It is in every way to be commended.

ORGANIZATION IN TEXAS.

We have been much interested in the contents of the first number of the *Fifth District Medical Bulletin*, dated August, 1904. The *Bulletin* is a quarterly of nineteen pages of reading matter published in San Antonio by the Fifth District Medical Society of Texas and edited by Dr. J. S. Lankford and Dr. J. V. Spring, assisted by nine representative physicians of the district. The district appears to consist of twenty counties, in fourteen of which county societies have been organized. The Bexar County society has the largest number of members, 104, and there are in the county only two eligible physicians who are not members. Of the thirteen other county societies, in four every physician but one in the county is a member, and in the others the membership includes every resident physician. In the district there are six counties in which there are no county societies. "In this sparsely settled section," says the *Bulletin,* "there are less than a dozen physicians, some of whom are not eligible for membership under even the broadest interpretation of the eligibility clause, and of those who are eligible, not as many as five can meet at any given point without the sacrifice of from one and a half to two full days of time." We are not astonished, therefore, to learn that "it has been thought best to allow the physicians from the above named counties to hold membership in the neighboring societies of their choice." Texas as a whole is said to rank fifth among forty-nine State and Territorial associations in the percentage of physicians enrolled, whereas it ranked only twenty-fourth so recently as in April, 1903.

What an example is here! Compare the zeal of the few physicians in the unorganized counties, not five of whom can meet without sacrificing at least a day and a half of time, yet willing to join neighboring county societies, with the apathy of those of us who, living in densely peopled regions, have only to saunter for a few blocks to attend a meeting! The contrast is most creditable to our brethren of Texas. As a matter of course, such an unexampled advance in organization has been achieved by the efforts of a few devoted men, men whose names deserve to go down in history as those of benefactors of their profession.

OYSTERS AS A SOURCE OF DISEASE.

It seems that ours is not the only community in which the newspapers give rise to needless anxiety on the part of the public and work unnecessary embarrassment to business interests by magnifying hints as to possible sources of disease. According to the *Progrès médical* for September 3d, they have been doing the same things in France concerning the oyster as a medium of the transmission of typhoid fever. To such an extent has this been carried that government intervention has taken the turn of refuting wild allegations, in order that the public dread might be allayed and threatened damage to the oyster industry averted.

An official report to the Consulting Committee of Marine Fisheries sets forth conclusions of which the following is the substance: Under conditions normal to its existence, the oyster is not unwholesome at any time of the year, even during the spawning period. The microbian diseases of the oyster are not transmissible to man. Moreover, they are rare, and are quite unknown in the majority of the French oyster-raising establishments. "Wild" oysters are free from all contamination, and, though at times unfit to eat, do not constitute a danger to the public health. The transmission of the typhoid bacillus by oysters is possible, but well demonstrated instances of its occurrence are exceedingly rare. Such transmission depends on circumstances that are quite exceptional. The breeding grounds are perfectly above suspicion. The fattening beds are sometimes suspicious in appearance, but there is no permanent contamination. It is only the beds where oysters are kept ready for transportation that call for active supervision, together with the places of deposit en route and the premises of the retail purveyors.

Inasmuch as the autumnal resumption of the oyster as an article of food coincides roughly with an annual recrudescence of the prevalence of typhoid fever, it is suggested that this coincidence may have served to emphasize the supposed connection between oyster-eating and the occurrence of the disease. While nothing is to be gained by shutting our eyes to the danger that probably lurks occasionally in the oyster, certainly it is unnecessary to alarm the public on account of that minimum of danger.

THE SIGNIFICANCE OF FEVER DURING LABOR.

Fever during labor, to which Verrier and Bonnal were the first to call attention, has hardly been studied, excepting in Germany, until within the last two or three years, when Vinay published a clinical lecture on the subject, and soon after Ravon upheld an important thesis on the same question. Fever of labor is not a frequent complication, and Vinay says that if one takes the rectal temperature upon several occasions during labor in a number of women, about three or four per cent. of them will be found to be febrile. The fever occurs in two different forms, the one slight, the other serious. In the first instance the majority of cases will be the result of a long labor, the membranes having been ruptured for several hours and dilatation being incomplete. A rise in temperature will then be found, but it is slight, varying between 100.4° and

102.5° F., and is about the only pathological symptom present. It is not ushered in by a chill, and the pulse rate is in relation to the temperature. There are practically no general symptoms such as abdominal pain, uterine tetanization, agitation, or dyspnœa. The tongue is natural and the facies is that of a normal parturient. The temperature falls and reaches the normal at the end of expulsion, and does not rise again during the post partum period.

In the serious form, on the contrary, the début is announced by a sudden, violent, and prolonged chill, accompanied by vomiting, agitation, and general malaise. The rectal temperature reaches, or even goes above, 104° F., and the pulse is rapid and more or less regular. Usually the membranes are intact and dilatation is incomplete. The general condition becomes progressively worse, and the facies, pale and drawn, shows the suffering and anxiety of the parturient. By palpation the uterus will be found painful and contracted during the intervals of pain, and Vinay calls particular attention to this tetany of the uterus during labor, as well as to the exaggeration of the pains, all of which are constant symptoms. Labor ends after a certain time, either spontaneously or instrumentally, but is not followed by defervescence, or at least should the temperature tend to fall, it will go up again in a few hours. Thirst becomes intense, the tongue is dry, the facies takes on a leaden hue and an anxious expression, and the general condition becomes serious—in a word, one is dealing with a serious post partum septicæmia which often ends in death.

This fever coming on during labor has been explained in many ways. It has been thought to be a physiological fever due to severe muscular effort, a theory which can hardly be upheld. On the contrary, it is certain that it is an infectious fever, due to the introduction of pathogenic bacteria, but here there is a difficulty of interpretation. How did the pathogenic agent make its entrance? An incubation of two or three days is required before the symptoms appear, and in many cases no digital exploration had been made before the beginning of labor, which is a frequent source of infection. The penis of the husband should then be suspected as the transporting agent of the bacteria. In three cases reported by Ravon a recent coitus was certainly the cause of contamination. In one sexual intercourse had taken place two days before labor, in the second four days previously, while in the third it occurred the night before, and Vinay points out that "it is sufficient to recall the filthiness of the genital organs of certain men in order to realize the possibility of infection by this means, and if it is admitted that the finger of the obstetrician can be the agent of infection, one can hardly deny that the penis may exert the same influence." The ætiological importance of this fact is so evident to many surgeons that at the obstetrical clinic at Leipsic, among other questions put to the patients is that of the date of the last coitus.

To sum up, it may be said that in all the recorded cases of fever during labor one was dealing with an infection of the same nature as that of the post partum period, that is to say, resulting from the streptococcus introduced by digital examination or by the use of instruments or by the recent insertion of an unclean penis. The pathogenic bacteria invade the amniotic liquid as soon as the membranes rupture, in which case we have the mild form; or they penetrate into the uterine cavity by way of the tiny solutions of continuity in the cervix, from which the serious septicæmia develops, but a period of incubation always exists.

In the milder cases of fever, the prognosis is good for both mother and child. The fever and other symptoms disappear as soon as labor is over, or may continue for a few hours after delivery, but in general they do not recur during the post partum period. Such is not the case in the severe type, which has a much graver significance, for in reality it is simply a precocious puerperal septicæmia with all its inherent dangers and complications. The only prophylactic treatment that can be employed is to advise the husbands to abstain from sexual relations with their wives during the latter months of gestation, and also attention to the strictest cleanliness of the obstetrician's hands and the precaution of only making a vaginal examination, either before or during labor, when this is absolutely necessary.

What should be the proper course to pursue when one is in presence of a parturient who has a rise of temperature? In mild cases the general condition of the patient is quite satisfactory and the fœtal heart normal, so that the labor may be allowed to proceed as in an ordinary case. It is often slow and dilatation tardy, but there is no reason for interfering. A careful toilet of the genital organs should be made and rigorous antiseptic precautions taken until delivery is over. If expulsion is too much delayed, so that the patient shows evident signs of exhaustion, especially if the fever is high, the general condition is poor, and the child begins to suffer, the labor should be hastened. This is absolutely indicated where there is infection of the amniotic fluid, especially with a temperature above 102.5° F., with a rapid pulse, general weakness, and great tenderness of the uterus. The necessity of ending the labor is evident for both mother and child, the usual methods being resorted to according to the indications present.

Charles Greene Cumston.

A SPANISH-AMERICAN EDUCATIONAL INSTITUTION.

Many of our readers doubtless have pleasant memories of the learned and genial Dr. Juan García Purón, who for some twenty years had charge of the Spanish department of a great New York publishing house. We learn that Dr. Purón, having returned to his native country, has established in Oviedo the Instituto Hispano-Americano, to be devoted to educational work, and especially to the preparation of young men for a career in America. Nobody better fitted to mould and direct such an institution could be found, and we do not doubt that it will prove of the greatest service to his young compatriots.

AS OTHERS SEE US.

Our Italian confrères at times give odd translations of American bibliographical references. Thus, our esteemed contemporary, *Riforma medica,* for July 6, 1904, p. 746, gives the reference of an article by Roger S. Morris on the Hæmolysins in Human Urine, as follows: "Dal Laboratorio clinico dell' Ospedale Giovanni Hopkins di New York." The original appeared in the *American Journal of Medical Sciences* for June, 1904.

THE COMPLICATIONS OF MUMPS.

The concomitant and consequent pathological conditions incident to the mumps are, as is well known, diverse. Probably it is not often that a patient with that disease is afflicted with more of them than occurred in a case reported at a recent meeting of the Hospital Medical Society of Paris by M. Dopter (*Bulletin médical,* July 30th). Besides orchitis, there was facial paralysis of the left side, with paralysis of the right half of the velum palati and tongue and mydriasis of the left eye.

THE SOFT COAL NUISANCE ON THE NEW HAVEN RAILWAY.

It is not impracticable to bring to bear even upon so haughty a corporation as the New York, New Haven, and Hartford Railroad Company agencies that will make it mend its ways. The company has had to yield to the demand of the city of Mount Vernon that it shall not burn soft coal in its locomotives within the limits of that municipality. What has been done by Mount Vernon can be done equally well by the other Westchester County towns through which the railway passes, and we hope to see them do it promptly.

AN ALLEGED AMERICAN THERAPEUTICAL MEASURE.

A French publication called *Vérité française* (cited in the *Gazette médicale de Paris* for September 10th) describes a "smile cure" and calls it an American invention. It is said that patients assembled in a clinic smile at each other incessantly, doing so under the physician's instructions. The smile resorted to must be of a long distance variety, for it seems to have made an impression in France before having created any stir in the land of its alleged nativity.

THE ACADEMY OF MEDICINE'S RECEPTION.

Attracted in great measure no doubt by the St. Louis fair, many foreign medical men of distinction are now with us. Various private gatherings have been arranged for their entertainment, but it is fitting that one of a more general scope should be provided for. Realizing this, the New York Academy of Medicine will hold a reception in honor of the visitors on Thursday evening, October 6th, at 9.30 o'clock, to which the profession in general are invited.

A JOURNALISTIC CONSOLIDATION.

There are many of us who for years have had an affectionate feeling for *Gaillard's Medical Journal* (formerly the *Richmond and Louisville Medical Journal* and before that the *Richmond Medical Journal*), and it is not without a pang that we learn of its having been merged in *Southern Medicine*. of Savannah, but these are the days of consolidation, and we look to see the product of fusion in this instance such as to justify the change.

News Items.

Society Meetings for the Coming Week:

MONDAY, *October 3rd.*—New York Academy of Sciences (Section in Biology); German Medical Society of the City of New York; Morrisania Medical Society, New York (private); Brooklyn Anatomical and Surgical Society (private); Corning, N. Y., Academy of Medicine; Utica, N. Y., Medical Library Association; Boston Society for Medical Observation; St. Albans, Vt., Medical Association; Providence, R. I., Medical Association; Hartford, Conn.; Medical Society; South Pittsburgh, Pa., Medical Society; Chicago Medical Society.

TUESDAY, *October 4th.*—New York Neurological Society; Buffalo Academy of Medicine (Section in Surgery); Elmira, N. Y., Academy of Medicine; Ogdensburgh, N. Y., Medical Association; Syracuse, N. Y., Academy of Medicine; Hudson, N. J., County Medical Society (Jersey City); Androscoggin, Me., County Medical Association (Lewiston); Baltimore Academy of Medicine; Medical Society of the University of Maryland (Baltimore).

WEDNESDAY, *October 5th.*—New York Academy of Medicine (Section in Public Health); Society of Alumni of Bellevue Hospital; Harlem Medical Association of the City of New York; New York Genitourinary Society; Medical Microscopical Society of Brooklyn; Medical Society of the County of Richmond, N. Y. (New Brighton); Penobscot, Me., County Medical Society (Bangor); Bridgeport, Conn., Medical Association.

THURSDAY, *October 6th.*—New York Academy of Medicine; Brooklyn Surgical Society; Society of Physicians of the Village of Canandaigua, N. Y.; Boston Medico-psychological Association; Obstetrical Society of Philadelphia; United States Naval Medical Society (Washington); Medical Society of City Hospital Alumni, St. Louis, Mo.; Atlanta Society of Medicine.

FRIDAY, *October 7th.*—New York Academy of Medicine (Section in Surgery); Practitioners' Society of New York (private); Clinical Society of the New York Postgraduate Medical School and Hospital; Baltimore Clinical Society; the Manhattan Clinical Society.

SATURDAY, *October 8th.*—Obstetrical Society of Boston (private).

NEW YORK.

Changes of Address.—Dr. Charles G. Kerley, to 132 West Eighty-first Street, New York; Dr. Jay William Dounce, to Ardsley Hall, 320 Central Park West, New York; Dr. DeSantos Saxe, to 214 West Forty-fourth Street, near Broadway; telephone number, 5577-38.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending September 24, 1904:

	Week end'g Sept. 24.		Week end'g Sept. 17.	
	CASES.	DEATHS.	CASES.	DEATHS.
Measles	42	3	43	4
Diphtheria and croup	234	28	224	16
Scarlet fever	68	1	58	4
Smallpox	4	..	2	..
Chickenpox	11	..	3	..
Tuberculosis	307	107	305	145
Typhoid fever	84	19	93	21
Cerebrospinal meningitis	..	13	..	19
Totals	750	171	728	209

University of Michigan.—Dr. R. Bishop Canfield, of New York city, was appointed on September 23rd professor of the diseases of the ear, nose, and throat in the medical department of the University of Michigan.

Dr. A. T. Mitchell, whom we reported last week as missing, is, we understand, a patient in a New York hospital and has communicated with his relatives in Vicksburg, Miss.

Eastern Medical Society.—The first open meeting for the season of the genitourinary section of the Eastern Medical Society will be held on Tuesday, October 4th, at 8 p. m., at Clinton Hall, 151, 153 Clinton Street. The paper of the evening will be Ureteral Catheterization—with Special Reference to the Treatment of Pyelonephritis Catarrhalis, by Dr. Winfield Ayres. Discussion by Dr. W. G. Pulley, Dr. Follen-Cabot, Dr. Frederic Bierhoff, Dr. Ferdinand C. Valentine, and others. Cases will also be presented.

New Yorker to Found a Consumptive Camp in Rhode Island.—Mr. J. B. Stokes, of New York, has offered to give twenty-five acres of land, or money with which to purchase it, for the establishment of a permanent camp at Pine Ridge, in northern Rhode Island, for the outdoor treatment of consumptives. Mr. Stokes stipulates that Newport residents shall provide five cottages, that not less than three be given by other than summer residents of Newport, that Newport shall have first call on these cottages for pay patients, and that the cabins shall be built or the money for them subscribed on or before October 20th.

A New Boat for Sufferers from Contagious Diseases.—Mayor McClellan has approved an ordinance authorizing an issue of corporate stock to the amount of $67,000 to pay for the construction of a new steamboat for the transportation of patients suffering with contagious diseases. The old *Franklin Edson* has been doing service for many years. Health Commissioners under all administrations for years have asked the board of estimate to appropriate money for a new boat. At the hearing of the budget last year some of the foremost medical men in the city stated that the conditions under which patients with contagious diseases are carried to North Brother Island were a disgrace to the city. The health commissioner will advertise for proposals at the earliest possible date.

Contagious Diseases in the Schools.—Dr. Thomas Darlington, president of the health board, spoke before the County Medical Society at the Academy of Medicine on September 26th on Precautions Used by the New York City Department of Health to Prevent the Spread of Contagious Diseases in the Schools. He said that the recently instituted system of having a nurse to take care of the children at schools had reduced the number of exclusions from about 25,000 in three months to 500. Children who, in times past, were kept away by minor diseases, are now allowed to attend and are treated by city nurses. Dr. Darlington spoke of the proper care of children's outer garments at school; the aeration of the class room; establishment of baths in public schools; proper lighting of the class rooms; exclusion of nervous diseases from class attendance, and other matters which did not come within the control of the department, but which in his opinion ought to be governed by it. Dr. John J.

Cronin, assistant chief medical inspector of the board of health, read a paper on The Work of the Summer Corps, and Dr. Robert J. Wilson, assistant bacteriologist, read one on Disinfection as Practised by the Department.

Medical Appointments at New York University.—The following new appointments for the university and Bellevue Hospital Medical College are announced for the coming year: Dr. George P. Wallace, to be assistant professor of pharmacology; Dr. Herman A. Haubold, to be clinical professor of surgery. Both of these have been occasional lecturers, and are now given the rank of professors. A lectureship on pathological chemistry, recently endowed by Dr. Herter, has been awarded for the present year to Dr. Phœbus A. Levene, of the Pathological Institute on Ward's Island. The university medical faculty of a few years since admitted no one to teach who was not a physician. The faculty for next year contains three professors who have never become doctors of medicine, but are doctors of science or philosophy, and two who, although doctors of medicine, have never engaged in practice.

The New York Academy of Medicine, Section on Laryngology and Rhinology.—A complimentary dinner will be given, under the auspices of the Section on Laryngology of the New York Academy of Medicine, to Sir Felix Semon, the distinguished laryngologist of London, who is now visiting this country. With the desire of avoiding conflict with his other engagements, it has been decided to hold the dinner, Tuesday evening, November 1st, at 7.30 o'clock, at Delmonico's. The price of dinner tickets will be ten dollars. Our readers are cordially invited to be present. Those desiring to attend will kindly notify the treasurer of the committee, Dr. Emil Mayer, of 25 East Seventy-seventh Street, New York. No seats can be reserved unless payment therefor is made by October 20th. An address before the Academy of Medicine will be delivered by Sir Felix on the evening of November 2nd.

The Late Dr. Victor Steinberger.—*Whereas,* We feel that in the untimely demise of our esteemed coworker, Dr. Victor Steinberger, we have lost a genial companion, an arduous worker, a progressive physician, and an earnest and sincere colleague. *Therefore,* Be it resolved, That we medical inspectors, and trained nurses of the department of health of the City of New York, Borough of Manhattan, at a special meeting held on July 23, 1904, extend to his widow and to his family our hearfelt sympathy in the hour of their bereavement. May the remembrance of his affable personality, his conscientiousness in his duties, his devotion to his beloved ones, and his uprightness of character serve to lighten their grief, to strengthen them in their affliction, and be a blessed memory in the future. And be it furthermore resolved, That these resolutions suitably engrossed, be presented to his widow and that a copy be published in the city medical journals. Jacob Sobel, M. D., Edward M. Thompson, M. D., E. Helen Knight, M. D., Otto A. Jahn, M. D., L. Marcus, M. D., Henry J. Blumenthal, M. D., Thomas W. Neapsey, M. D., committee.

Vaccination and Birth Certificates in Brooklyn.—The feature of work at the Brooklyn health office on September 13th was the rush for vaccination. No less than seven doctors were busy, and the halls, areaways, and sidewalks were crowded with children and their parents desirous of securing the necessary certificate for admission to the public schools. It is not at all unlikely that some measures will be taken to house the people while they are waiting for attention. Another rush was for birth certificates. The new rule of the school board that children under the age of 6 years shall not be admitted to the public schools has necessitated the production of birth certificates and about 500 persons applied for certificates showing when their children were born. The records of the department are kept in a vault, and entrance to the vault is so small that only two clerks can work there at a time. The consequence is confusion and congestion, such congestion as has never been seen at the local health office before. Although the officials at the bureau of records are doing all they can to facilitate work and get rid of the people, they find it very hard to accommodate everybody. Another source of confusion is the fact that only a small percentage of the births have been recorded.

PHILADELPHIA.

Change of Address.—Dr. W. L. Rodman, to 1904 Chestnut Street.

Meetings of Medical Societies for the Week Ending October 8th.—Wednesday, College of Physicians.

Death.—Dr. Henry Ridgely died at Dover, Del., on September 17th. Dr. Ridgely was born in 1817; he graduated from the medical department of the University of Pennsylvania in 1839. He was interested in agriculture, in the financial institutions, and in the politics of Delaware.

Dr. John B. Chapin, President.—The Association of Superintendents and Trustees of Institutions for the Insane of Pennsylvania met at the State Asylum for the Chronic Insane, at South Mountain, near Reading, on September 22nd. Dr. John B. Chapin, physician in chief to the Pennsylvania Hospital for the Insane, Philadelphia, was chosen president for the coming year.

The Health of the City.—The following contagious diseases have been reported for the week ending September 17th:

	Cases.	Deaths.
Typhoid fever	134	15
Scarlet fever	50	2
Smallpox	1	1
Diphtheria	49	9

The total death rate for the week was 408 in an estimated population of 1,408,154, corresponding to an annual death rate of 15.07 per 1,000. There have been the following deaths from other contagious diseases: Malarial fever, 1; whooping cough, 1; tuberculosis of the lungs, 50; other forms of tuberculosis, 5; pneumonia, 21; erysipelas, 1; puerperal fever, 3; cholera morbus, 1; diarrhœa and enteritis in children under two years of age, 36.

On the afternoon and evening of the 14th and in the early morning of the 15th the city was visited, first, by a thunderstorm with unusually heavy rain, and, second, by a windstorm of hurricane proportions, during which the wind reached a velocity of over 60 miles an hour. During both these storms, 5.67 inches of rain fell and during the latter much damage was done by the uprooting of trees, etc. The maximum temperature on the 14th before the first storm was 76° and the humidity was 98.

The Woman's Medical College.—The fifty-fifth annual session of the Woman's Medical College of Pennsylvania began on Wednesday, September 21st, with an address by the dean, Dr. Clara Marshall, at the college building, Twenty-first Street and North College Avenue. In her address, Dr. Marshall paid an eloquent tribute to the memory of Dr. Frances Emily White, who died during the past academic year. The resignations of Dr. Elizabeth R. Bundy, Adjunct Professor of Anatomy, and of Dr. Hirschler, Dr. Hildrup, and Dr. Schetky, assistant demonstrators of anatomy, were announced. Dr. Henry Morris has been elected to the chair of anatomy, made vacant by the death of Dr. W. H. Parish, and the subordinate positions in the department of anatomy have been filled by the election of Dr. Harriet I. Noble to the position of demonstrator of anatomy, and of Dr. Margaret L. Noyes, Dr. Blanche B. Wunderle, and Dr. Mary Louise Dixon Bickings to the positions of assistant demonstrators of anatomy. Dr. Amelia Weicksel assumes the duties of instructor in medical gymnastics and director of physical training. This is the first regular medical school to create the position of instructor in medical gymnastics and to make that branch a part of the regular curriculum. Dr. Marshall also announced the beginning of a college hospital, directly under the control of the college, consisting of wards for both men and women patients, at present with 20 beds. This, with a dispensary for men and women, a maternity department, located at 335 Washington Avenue, with 12 beds, an out obstetrical service of 400 cases annually, and the Amy E. Barton Dispensary, it is thought will give a fairly large amount of clinical material, until such time as the college hospital shall have increased in capacity. The freshman class is quite as large as usual in this institution, in which women from all parts of the world study.

The Use of Copper as a Purifying Agent for Polluted Potable Water.—Early in the summer the newspapers discovered that experiments were being made by the Department of Health and Charities of Philadelphia concerning the use of copper and its salts as a method of purifying polluted drinking water. Much useless and inaccurate discussion ensued, mixed with some authoritative statements. Recently a symposium was arranged by the Franklin Institute for the discussion of the subject at which Dr. Hobart A. Hare, Dr. A. H. Stewart, Dr. Mary E. Pennington, Dr. George Meeker, and Dr. Edward Martin, and Mr. Williams, chemist to the Frankford Arsenal; Mr. John C. Trautwine, former chief of the water bureau; Mr. Hill, the present chief of the water bureau; and Mr. P. H. Maignen, the inventor of the Maignen filter, spoke. At times, according to reports, the discussion grew quite animated. The Department of Public Health and Charities authorizes the following statement concerning the subject: "The department is not yet in a position to fully advocate the use of copper. The department is now engaged in studying the question experimentally. The results, so far as they go, though not yet conclusive, lead the department to expect that copper in very high dilutions may prove serviceable in ridding polluted water of typhoid bacilli. The experiments also indicate that in such dilutions copper sulphate has very little action on any of the other organisms commonly found in polluted water. The department has in mind neither the substitution of copper sulphate for filtration nor its use as a supplement thereto; but regards it as possibly a useful agent to be employed in the purification of our water supply until the filtration plants are completed, when the copper treatment will be abandoned. The department has made a careful study of the literature of the subject, and fails to find any evidence that copper sulphate in the amounts in which it is proposed to use it has any poisonous properties whatever, either as an acute poison or as a cumulative one."

The Faculty of the University of Pennsylvania, Medical Department.—A new arrangement of the faculty of the medical department was recommended to the board of trustees of the University of Pennsylvania on April 18, 1904. The purpose sought to be accomplished includes both the idea of recognizing the long continued and meritorious service of a number of men connected with the institution, and also the hope that by including in the new faculty a number of the instructors of lower grade than full professor, a more intimate and exact knowledge of the need of the students and of the various departments may be had. Thus far the faculty has included only those full professors whose subjects have been required in the promotion or graduation of the students.

There have been unquestioned advantages in the small size of the faculty, especially in matters demanding prompt and fully concerted action. And probably, too, in times past, it was necessary to limit the size, because of the fact that comparatively few men remained any great number of years in connection with the school, save as they were admitted to this body. The vast growth of the school, however, and the widening of its field of instruction in the more recent years have led to the development of a large group of men in the position of assistants, or in full charge of special subjects, who are brought in close contact with the students, and whose laboratories and hospital departments thoroughly demand some representation in the governing body. After careful consideration, the faculty as outlined in the change adopted, will include all of the full professors, clinical professors, associate professors, assistant professors, demonstrators, associates, and lecturers. Those members of the teaching staff lower than the above grades, viz., instructors, assistant instructors, assistant demonstrators, and assistants, each year elect from among their own number one person from every ten, to represent them in the faculty for the next current academic year. According to such composition, the faculty will hereafter number more than sixty members. Inasmuch as so large a group is necessarily more or less unwieldy, it was arranged that, for those types of business which are more or less routine in character, as well as those in which direct responsibility is required, in the matter of academic standing and promotion of the classes, and for nomination to the board of trustees for membership on the teaching staff, a smaller group, to be known as the council, should be constituted, very much of the same personnel as the old faculty group. The council will consist of seventeen members, of whom the following hold their positions ex officio: The provost, vice-provost, dean, and the professors of medicine, surgery, obstetrics, therapeutics, pathology, anatomy, chemistry, physiology, hygiene, and bacteriology. The two clinical professors of medicine will alternate annually, as will also the two clinical professors of surgery. Each year one professor will be chosen by ballot by the professors or clinical professors of the special branches from among their number as a representative upon the council; and similarly, one representative is annually chosen by ballot from among the teachers below the rank of clinical professor. It is understood, however, that the present faculty representatives of specialties shall, until the vacation of their respective chairs, be ex officio members of the council; thereafter, one additional successor will be chosen from the special branches, giving these subjects in all two representatives upon the council. In the working, it is hoped to give the new members of the faculty a special importance in the various committees dealing most closely with the relations of the school to the student body. For example: In matters of discipline, students' welfare, the general curriculum, and postgraduate instruction.

GENERAL

Japanese Cough Cure.—In Japan coughing children, according to the *Medical Herald*, of Athens, Greece, are kept in a room in which naphthalin and camphor are vaporized, until the cough is cured.

Dr. William Osler, recently elected regius professor of medicine of Oxford University, was expected to return to Baltimore about September 23rd. He returned to this country from Europe on August 12th, and was with his family in Toronto, where he remained until he returned to his former home.

Dr. Lewis A. Palmer, of South Framingham, has received from the Massachusetts State board of health an appointment in connection with chap. 99, resolutions of 1904, which provides for an investigation as to the sanitary and other conditions affecting the health or safety of employees in factories and other establishments, and has begun his duties.

Savannah Hospital.—Dr. W. R. Dancy, who for the last six months has been acting resident physician of the Savannah Hospital, has tendered his resignation and Dr. H. Paul Adams has been appointed resident physician. Dr. Dancy took the position with the understanding that he would be relieved as soon as a suitable physician could be found to fill the place permanently.

Consolidation of Medical Journals.—With the October issue, *Gaillard's Medical Journal and Southern Medicine* will be consolidated and published under the title of *Southern Medicine and Gaillard's Medical Journal.* The New York publication was founded nearly forty years ago and was read much by Southern practitioners. On the death of Dr. Gaillard the publication was continued by his sons.

The Montreal General Hospital has decided to allow foreign graduates in medicine, including those from the United States, to occupy positions on its resident staff. Formerly only graduates of institutions in the British dominions were eligible. This broadening of the field cannot but be helpful to this excellent institution, which offers remarkable opportunities to clever young physicians, being situated in a large city which is also a busy port.

Naval Medical School.—The Naval Medical School will open in Washington on October 1st with twenty student officers. There are now sixteen vacancies in the medical corps of the navy, and examinations are going on all the time with the hope of filling them. The faculty of the school will be the same as at the last course, with the exception of Medical Director J. W. Ross, who has been assigned to duty at Panama and will be succeeded by Surgeon W. E. Lovering, who recently returned from the Asiatic station. The latter officer will give lectures on tropical diseases and their treatment.

At the Denver Meeting of the American Academy of Ophthalmology and Otolaryngology, held on August 24, 25, and 26, 1904, the following officers were elected: President, Dr. H. W. Loeb, of St. Louis, Mo.; first vice-president, Dr. D. T. Vail, of Cincinnati, Ohio; second vice-president, Dr. Robert Levy, of Denver, Colo.; third vice-president, Dr. Eugene Smith, of Detroit, Mich.; secretary, Dr. George F. Suker, of Akron, Ohio; treasurer, Dr. Otto J. Stein, of Chicago; council, Dr. H. W. Loeb, Dr. Edward Jackson, Dr. W. L. Ballenger, Dr. Casey A. Wood, and Dr. J. M. Ray, of Louisville. The next place of meeting will be decided upon by the council and will be announced shortly.

Statement of Mortality in Chicago, Ill., for the Week Ending September 24, 1904, compared with the preceding week and with the corresponding week of 1903. Death rates computed on United States Census Bureau's estimated midyear populations of 1,932,315 for 1904 and of 1,873,880 for 1903:

	Sept. 24, 1904.	Sept. 17, 1904.	Sept. 26, 1903.
Total deaths, all causes	457	443	498
Annual death rate per 1,000	12.36	11.98	13.85
By sexes—			
Males	257	266	276
Females	200	177	222
By ages—			
Under 1 year	109	116	91
Between 1 and 5 years	35	41	61
Over 60 years	84	79	89
Important causes of death—			
Acute intestinal diseases	81	77	61
Apoplexy	10	10	17
Bright's disease	34	26	34
Bronchitis	4	9	8
Consumption	63	48	45
Cancer	18	18	19
Convulsions	7	10	5
Diphtheria	7	6	18
Heart diseases	34	29	41
Nervous diseases	19	21	21
Pneumonia	32	34	32
Scarlet fever	0	0	2
Suicide	5	6	11
Smallpox	2	2	0
Typhoid fever	7	7	15
Violence (other than suicide)	37	30	36
Whooping cough	3	0	5
All other causes	88	100	128

Unmistakable evidence of sewage pollution was found in the water supply Saturday, the result of the early morning rain. The department fears that the rain of Sunday night may increase this pollution, and urges that all hydrant water for drinking purposes be boiled for the present.

The American Association of Obstetricians and Gynæcologists held its annual election of officers at the Monticello Hotel, St. Louis, on September 15th. Dr. Henry W. Longyear, of Detroit, Mich., was chosen president. Dr. Longyear is surgeon at the Harper Hospital in Detroit. He is about 50 years old and was a pupil of the noted Mr. Lawson Tait, late of London. The two vice-presidents are: Dr. David Tod Gilliam, of Columbus, Ohio, and Dr. John Young Brown, superintendent of the St. Louis City Hospital. Dr. William W. Potter, of Buffalo, N. Y., was reelected secretary, and Dr. Xavier O. Werder, of Pittsburgh, Pa., treasurer. For members of the executive council for three years, Dr. Walter B. Dorsett, of St. Louis, the retiring president, and Dr. James F. W. Rose, of Toronto, Can., were named. The association will meet in New York city next year during the second week in September.

The Association of Military Surgeons of the United States will open the International Congress of Military Surgeons at the Hall of Congresses at the St. Louis World's Fair on October 10th.

By the courtesy of the local committee, several representatives will be at a central point in the vicinity of the bureau of information of the railway depot, to direct members and delegates to their destination. In case any arrival should be overlooked it should be remembered that the Laclede Avenue and the Market Street cars, which pass in front of the depot, run within a few yards of the entrance to the Inside Inn. During the meeting, the register of attendance will be found in the committee room adjoining the assembly room in the Hall of Congresses. Members are urged to register here immediately upon arrival, when badges and other matters of interest will be furnished them. For the opening session, to which the general public is invited, the hour of two o'clock on Monday afternoon has been fixed. The other sessions will convene at the Hall of Congresses at nine o'clock in the mornings of October 11th to 15th—Tuesday to Saturday—inclusive. Generally—and at all business sessions of the meeting—fatigue or undress uniform will be worn. Full dress uniform or civilian evening dress with the association button or insignia should be worn at evening functions. Officers not now in active service should wear the uniform of the highest grade previously held by them as worn at the time of their withdrawal from active service.

Medical Society of Virginia.—Announcement of the thirty-fifth annual session to be held at Richmond, Va., October 18 to 21, 1904. The Medical Society of Virginia will convene in the hall of the Masonic Temple, corner of Broad and Adams Streets (known as 101-105 West Broad Street), Richmond, Va., at 8 p. m., Tuesday, October 18, 1904. This night session will be open to the public as well as to the profession. All west bound street cars marked either Broad Street or Laurel Street, or Main, Eighth, and Broad Streets, pass the Masonic Temple. All other street cars at some junctional point connect with the Broad Street lines. But passengers immediately on boarding any other than the Broad Street cars referred to, should ask conductors for proper transfer tickets to cars that pass Masonic Temple. In the ample hallway adjoining the Hall of Session in the Masonic Temple, spaces have been reserved for Exhibits of Medical and Surgical Supplies, etc., by a number of the leading manufacturers of the country. This promises to be a very interesting feature. Dr. McGuire Newton is chairman of the subcommittee of the general committee of arrangements in charge of this department. Doctors having interesting pathological specimens, x radiographs, etc., which they can loan for exhibition during this session are earnestly requested to bring or send them in advance by express, addressed to the care of either of the committeemen having such matters in charge—Dr. Ennion G. Williams, 315 East Grace Street, or Dr. E. Guy Hopkins, 1112 East Clay Street, Richmond, Va. Descriptions of these pathological specimens should be given on the labels of the containers.

Order of Presentation of Papers.—Practical Points in the Interpretation of Sanitary Water Analyses, from the Physician's Standpoint, by Dr. Ernest C. Levy, of Richmond, Va.; Early Recognition of Hypertention, by Dr. Henry Wireman Cook, of Richmond, Va.; Surgical Shock, by Dr. J. Shelton Horsley, of Richmond, Va.; Bowel Repair in Accidental and Pathological Lesions in Pelvic and Intra-abdominal Operations, by Honorary Fellow, Dr. Joseph Price, of Philadelphia, Pa.; Postoperative Femoral Thrombophlebitis, by Dr. Lewis C. Bosher, of Richmond, Va.; Analysis of Twenty-five Cases of Strangulated Hernia Operated On, by Dr. George Tully Vaughan, of Washington, D. C.; The Appendix and Its Relation to Abdominal Hernia, by Honorary Fellow, Dr. W. B. DeGarmo, of New York, N. Y.; Surgical Treatment of Cirrhosis of the Liver, by Dr. Southgate Leigh, of Norfolk, Va.; Treatment of Chronic Ulcers of the Leg, by Dr. O. F. Blankingship, of Richmond, Va.; Metastasis from Cancers of the Breast, by Dr. Greer Baughman, of Richmond, Va.; Operative Intervention in Cases of Typhoid Perforation, by Dr. Hugh M. Taylor, of Richmond, Va.; Diagnosis Between Gonorrhœal and Streptococcic Pelvic Infection, by Dr. G. Brown Miller, of Washington, D. C., invited guest; Remarks on the Two Routes for Prostatectomy, by Dr. J. W. Henson, of Richmond, Va.; Conservative Treatment of Affections of the Uterine Annexa—Its Indications and Limitations, by Honorary Fellow, Dr. George Tucker Harrison, of New York, N. Y.; Curettage and Perinæorrhaphy in a Case of Uterine Sepsis, Three Months' Pregnancy, by Dr. Edward T. Hargrave, of Norfolk, Va.; Is Gynæcology a Specialty? by Dr. Charles R. Robins, of Richmond, Va.; My Last One Hundred Hysterectomies, by Honorary Fellow, Dr. George Ben Johnston, of Richmond, Va.; Ætiology and Treatment of the Uncontrollable Vomiting of Pregnancy, by Dr. J. Whitridge Williams, of Baltimore, Md., invited guest; A Plea for the Clinical Study of Insanity, by Dr. E. N. Brush, of Baltimore, Md., invited guest; Ætiology of Tuberculosis Considered in Relation to Its Therapeutics, by Dr. Louis F. High, of Southern Pines, N. C.; Pneumonia—from the Practitioner's Standoint, by Dr. William E. Anderson, of Farmville, Va.; Treatment of Digestive Disorders, by Dr. James Wilson Hunter, of Norfolk, Va.; Notes on Psoriasis, by Dr. Thomas W. Murrell, of Richmond, Va.; Use of Sodium Bisulphate in the Treatment of Typhoid Fever—Report of Cases, by Dr. John Egerton Cannaday, of Paint Creek, W. Va.; Pott's Paraplegia, with Report of Cases, by Dr. A. R. Shands, of Washington, D. C.; Importance of Early Recognition of Nervous Instability, as Differentiated from Actual Pathology in Diseases of Women, by Dr. J. Allison Hodges, of Richmond, Va.; Abscess of the Brain of Otitic Origin, by Dr. George F. Keiper, of La Fayette, Ind., invited guest; Mastoiditis, with Report of Cases, by Dr. William F. Mercer, of Richmond, Va.; Headache from Nasal Causes, by Dr. Joseph A. White, of Richmond, Va.; Some Suggestions to the General Practitioner as to the Care of Certain Eye Cases, by Dr. James L. Kent, of Lynchburg, Va.; Eye Strain, by Dr. Clarence Porter Jones, of Newport News, Va.; Importance of Urinary Examinations, by Dr. B. Lawrence Taliaferro, of Richmond, Va.; Reports on Surgical Uses of X Rays, by Dr. A. L. Gray, of Richmond, Va.; Present Status of the X Rays, by Dr. Ennion G. Williams, of Richmond, Va.; Virginia Laws Relating to Poisons, by Dr. George E. Barksdale, of Richmond, Va.; The County Medical Society—Its Use and Abuse, by Dr. Lucien Lofton, of Emporia, Va.

Pith of Current Literature.

PRESSE MEDICALE.

September 7, 1904.

1. Multiple Hypersecretions in Progressive General Paresis, By De Montyel.
2. Treatment of Rectal Fistula Following Strangulated Crural Hernia, By Delbet.

1. **Hypersecretion in General Paresis.**—De Montyel has studied the hypersecretion of tears, saliva, sweat, and urine in general paresis. In eight patients, he found seven who shed abundant tears over such trifles as the extinction of a cigarette or the loss of a trousers button, as well as having other hypersecretions. The eighth patient had the very unusual combination, hyperidrosis and polyuria. He has since seen another such case. Sialorrhœa is the commonest concomitant in these cases of other hypersecretion. Of 25 paretics, who had but one hypersecretion, all varied from one form to another. Hypersecretion, according to the writer, both in amount and variety, varies with the ætiology of the paresis, with the age of the patient, and with the season of the year. Its duration is generally short; it is uninfluenced by temporary emotion; it seems to be a symptom only in syphilitic cases; and it apparently does not occur in patients who have been attacked after the age of fifty years.

September 10, 1904.

1. The Therapeutical Uses of Anhydrooxymethylene Diphosphoric Acid, By Gilbert and Lippmann.
2. Remarks on the So Called Nascent State in Therapy, By Tommasi.

1. **Anhydrooxymethylene Diphosphoric Acid.**—Gilbert and Lippmann, in view of the origin of this product and its richness in assimilable phosphorus, speak highly, not only of its nutritive qualities, but also of its dynamic qualities. They recommend it for growing children, pregnant women, nursing mothers, and in slow convalescence. They cite 18 cases of neurasthenia where they prescribed it with success. They also state they have had good results in tuberculosis, anæmia, and chlorosis.

SEMAINE MEDICALE.

August 31, 1904.

Surgical Treatment of the Soft Chancre, By Carle.

Soft Chancre.—Carle considers that soft chancres diagnosticated during the first forty-eight hours should be cauterized, and also those situated where operation would produce an inconvenient cicatrix. He has not had good results from caustic drugs, but has found that the radiant heat from the thermocautery, as well as a hot local bath of any kind, has a beneficial effect. Curetting, followed by brisk rubbing with bichloride solution and the application of an ointment, leaves a simple and easily treated ulcer. Circumcision, following cauterization and washing with a 60 per cent. solution of zinc chloride, may be necessary.

RIFORMA MEDICA.

August 10, 1904.

1. Suppurative Pylephlebitis Complicating an Appendicitis (*To be continued*), By Augusto Pellegrini.
2. Structural Alterations in the Thyreoid Gland as the Result of Poisoning with Phosphorus and Arsenic, with Special Reference to the Treatment of Goître, By Luigi Macaggi.
3. Typhœmia (*Concluded*), By Guglielmo Memmi.

2. **Arsenic and Phosphorus in Goître.**—The object of Macaggi's research was to determine the influence of arsenic and of phosphorus upon the functions of the thyreoid gland, the subject having been suggested through the recent work of Kocher, and others, who claimed that a combination of arsenic and phosphorus is beneficial in the hypertrophic affections of the thyreoid gland. Theoretically this is possible in virtue of the effect of these two therapeutic agents upon metabolism. Macaggi administered arsenic and phosphorus to animals deprived of a portion of the thyreoid gland, and also upon animals who had been artificially hyperthyreoidized. The thyreoid glands of these animals were removed and showed the following changes: In animals who had been poisoned by both arsenic and phosphorus nothing was found microscopically which was more characteristic of the one poison rather than of the other. In the animals which died of rather acute poisoning the thyreoid glands were found congested, with enlarged superficial veins. They were also slightly larger than the normal glands of these animals (dogs). In the more chronic forms the glands assumed more and more atrophic features, became yellow, anæmic, and dry. Histologically, in the acute forms of poisoning, there was a dilatation of the capillaries, and the interstitial lymphatics of the gland contained colloid masses. The epithelium of the gland was almost always normal, rarely clouded or altered. It seemed therefore that the changes in the gland were independent of the degenerative processes in the other organs. Only in the most protracted cases of poisoning was there an extensive degeneration of the thyreoid epithelium. These experiments do not show how phosphorus and arsenic can benefit a goître, as Kocher claims. While in the acute forms there is a certain amount of diffusion of the colloid substance into the lymphatics, and an alteration in the quality of the colloid substance itself, there are in the chronic cases a series of changes in the parenchyma of the organ that do not at all indicate an improvement in the goître. The experiments here noted prove that there is a diminution in the secretion of the gland after the use of arsenic and phosphorus. This treatment can help a goître, not through an increase in the normal functions of the gland, but through changes in the epithelium or through the diminution of the colloid secretion.

3. **Typhoid Bacilli in the Blood.**—Memmi's article deals with the conditions under which typhoid bacilli appear in the blood of patients with this disease. He found that the frequency was proportional to the severity of the disease. The best time to find this germ in the circulation was the period between the end of the first and the beginning of the third week, but in severe cases the

bacilli were found later in the disease also. The bacilli isolated from typhoid blood were found to possess only limited motile powers, and at times were found united into groups, testifying to the high agglutinating powers of the blood. The method of large dilutions (Castellani) is well adapted for the isolation of the typhoid bacillus from the blood. No relation exists between the appearance of the typhoid bacillus and the presence of the Gruber-Widal reaction. The typhoid bacilli brought into contact with typhoid serums show feeble agglutinating power, which increases with the length of time the germs are cultivated outside of the body. There was not much difference, however, between the bacillus of typhoid fever grown in the laboratory and one just isolated from the blood of a patient, as regards the manner in which the Widal reaction took place. Other germs besides the typhoid bacillus were found, especially the streptococcus and the diplococcus of Talamon-Fraenkel, when the disease was complicated by pneumonia. The cases of typhoid without any intestinal localization are not so rare as has been hitherto thought. Typhoid septicæmia should be considered as the highest form of typhoid infection.

August 17, 1904.

1. Contribution to the Pathology of Severe Forms of Diabetes Mellitus, By ETTORE TEDESCHI.
2. Some Symptoms and the Leucocytic Formula of Mushroom Poisoning, By UMBERTO GABBI.
3. Suppurative Pylephlebitis Complicating an Appendicitis (*Concluded*), By AUGUSTO PELLEGRINI.

1. **Pathology of Severe Forms of Diabetes.**—Tedeschi deals with that severe form of diabetes in which there is a large amount of glucose eliminated, not in proportion to the small amount given in the food, and when the carbohydrates are entirely stopped, there still continues to be a large secretion of sugar in the urine. He reports in detail the observations made on a patient with severe diabetes for thirty-five days. He found that the ratio between the elimination of dextrose and the output of nitrogen (D:N) was greater than the figure 3:1, the proportion fixed by Minkowski and others. There was evidently no exact ratio between the amount of sugar and the amount of nitrogen eliminated. While the author is not prepared to deny the hypothesis that a portion of the sugar eliminated depends upon the proteid metabolism, yet he does deny that there is a dependence between the elimination of sugar and the albuminous metabolism, as has been asserted. Rumpf, and after him Rosenquist, supposed that the fat of the body may serve as a source of carbohydrates in the urine in cases in which glycosuria appears to be increased on decreasing the sugars and starches in the diet. This was the first suggestion that carbohydrates may arise from other substances than proteids under these conditions. While certain objections have been put forward against this theory, the author thinks that it is the best and most strongly sustained by facts that we possess. In this manner may be explained the remarkable disproportion between the amount of glucose and the amount of nitrogen elimination. The coefficient D:N mentioned above, therefore, loses most of its clinical and pathological value, since the elimination of sugar and that of nitrogen are independent. Still, the ratio may be preserved as an additional sign of a severe form of diabetes.

2. **Mushroom Poisoning.**—Gabbi reports four cases of mushroom poisoning in three instances of which he noted a marked dilatation of the stomach as the result of the intoxication. He excludes the presence of previous dilatation in these cases, because there had never been any symptoms of such a condition before the accident. Besides, when the poisonous symptoms subsided the stomach returned to its normal volume in all three patients. It is possible that the dilatation was due partly to an exhaustion of the stomach walls after the violent vomiting which occurred in all three cases, but possibly there was a pyloric spasm due to a hyperchlorhydria, resulting from the mushroom poison. In all four patients another interesting sign was a swelling over the liver. If we remember that the poison of some mushrooms is distinctly hæmolytic, we may explain the swelling by supposing that the liver was called upon for a great deal of the hæmolysis to be done, and therefore, increased in volume with the increase of blood in it. The large amount of urea eliminated daily by these patients proved that the liver was actually in a state of hyperactivity.

A third clinical sign to be noted in mushroom poisoning is the lowering of the arterial tension which was observed to a marked degree in all three patients. The sinking of the blood pressure was simultaneous with a rapid pulse and with an aggravation of the vomiting and the diarrhœa.

The most important observations of the author concern the leucocytic formula of the blood in these cases. The absolute increase of the white blood cells was slight in three patients and fairly well marked in one. On the other hand, there was a very marked polynuclear leucocytosis. This observation is an important confirmation of the theory that the polynuclear leucocytes are defenses of the organism against toxic agents and microbes. Towards the end of the poisoning there was an increase in the number of large mononuclears, and especially in one case, which ended fatally, there was a very marked increase of these elements, showing that the increase of large mononuclears indicates the end of a severe infection.

3. **Suppurative Pylephlebitis in a Case of Appendicitis.**—Pellegrini reports two cases of appendicitis which were complicated by inflammation of the portal vein. An operative procedure, however slight, when it reaches the neighborhood of veins whose walls are somewhat altered may give rise to the formation of thrombi. In the case of the appendix, the mesenteric and mesoappendicular veins are not infrequently altered by the presence in their walls of a toxic phlebosclerosis. If the operation includes a septic area, the infection readily enters into the open veins and is carried into the portal system. Fortunately a suppurative thrombophlebitis does not always occur in such cases, as was the case in the patients whose histories are here reported, but this is because the germs are not always so virulent nor the patients so feebly resistant.

GAZZETTA DEGLI OSPEDALI E DELLE CLINICHE.

July 17, 1904.

1. A Rare Form of Congenital Heart Disease, By Olimpio Cozzolino.
2. Persistent Umbilical Vein in an Adult, By Edvige Benigni.
3. Contribution to the Study of Exostoses. Solitary Exostoses in Rare Places; the Ilium; the Fibula; the Astragalus, By A. Pellegrini, and G. Conforti.

2. **Persistence of the Umbilical Vein in an Adult.**—Benigni tells of a boy, aged eighteen years, who had been born in the country without any attendance, and whose cord his mother ligated hastily herself. After a severe blow a hæmatoma appeared in the umbilical region, and after a time this swelling ruptured and a stream of dark blood flowing without arterial rhythm appeared. The umbilical vein was found to be open and was ligated.

July 24, 1904.

1. Tests for Incoordination of Movements. The Phenomena of the Elevated Foot and the Factors Influencing Them, By M. Gay.
2. The Real Value of Inoscopy, By Basilio Bonardi.
3. A Case of Tuberculous Stenosis of the Ileum, By Massimo Chiadini.
4. Therapeutical Notes, By Eugenio Gugnoni.

2. **The Value of Inoscopy.**—Bonardi's research concerns the significance of Jousset's method of examining the morphological elements of a coagulated exudate (inoscopy) which has been recommended by various authors in the diagnosis of tuberculous pleurisy, peritonitis, etc. Bonardi concludes from an extensive trial of this method that its precise value cannot as yet be definitely estimated. Various diseases in his hands gave different ratios of positive results. Thus, for instance, in none of the cases of multiple tuberculous localizations in which he examined the coagulated exudate was the result positive. In 35 per cent. of all cases he obtained positive results with inoscopy. The method is not by any means simple, but it may offer its rewards in clinical investigations. At all events inoscopy is destined to remain as one of the valuable methods of diagnosis in the early stages of tuberculosis, together with the injections of Koch's tuberculin and of Arloing and Courmont's serum reaction.

3. **Tuberculous Stenosis of the Intestine.**—Chiadini reports the case of a woman, aged thirty-eight years, who began to be constipated in 1896, and then complained of pains in the abdomen. In 1898 attacks of pain with vomiting appeared. She was admitted to the hospital and on examination showed no tumor. She passed scanty stools and vomited fæcal matter. Laparotomy showed the point of stenosis to be located at about the middle of the small intestine, and to consist of a diseased area about 10 cm. long, in which the walls were greatly thickened and the lumen very narrow. The diseased portion was resected and joined by a Murphy button. The patient made a good recovery. The resected gut was found to be the seat of tuberculosis, including a number of ulcers. Three years later the same patient was again operated on by the Mikulicz plastic method, for a recurrence of the same condition and made a second good recovery.

BERLINER KLINISCHE WOCHENSCHRIFT.

August 29, 1904.

1. Pseudoparalytic Myasthenia (Erb's Disease) with Atrophy of the Tongue After Overexertion, By P. K. Pel.
2. Peculiar Symptom Complex Following a Parietal Gunshot Wound, By Koelpin.
3. Enuresis in Children, By J. G. Rey.
4. Filter Paper in Practical Hæmatology, By T. W. Tallqvist.
5. Cosmetic Massage, By J. Zabludowski.
6. Carl Weigert, By C. J. Salamonsen.

1. **Pseudoparalytic Myasthenia.** — Pel describes the case of a young woman who, after working fifteen hours a day for a long time at scrubbing, gradually developed a pseudoparalytic myasthenia with dysarthria, dysphagia, facial diplegia, a slight ptosis, with gradual collapse. The tongue showed myasthenic reaction, but this was not observed in the other muscles. Dyspnœa and continual change in the symptoms were noted. Death followed with symptoms of respiratory paralysis. The author attributes the ætiology to the excessive work. The disease is localized in the central nervous system and arises through toxic elements derived from the blood.

2. **Parietal Gunshot Wounds.**—Koelpin reports the case of a man who attempted suicide and shot himself in the right temple. The patient developed complete blindness from the severance of the optic nerve, bilateral anosmia and complicated disturbances of sensation in the regions of the right and left first trigeminus nerves.

3. **Enuresis in Children.**—Rey says a great many cases of enuresis in children are due to catarrh of the bladder, also to infection of the bladder with the colon bacillus which is often found in pure culture and which can be cured with salol and a suitable diet. Stress is laid upon an excess of ammonia salts in the urine, which can also be cured by salol and diet. Some cases of enuresis depend on phosphaturia, on increased uric acid excretion, or upon an accumulation of smegma bacilli about the corona. Occasionally, the oxyuris is the agent at fault. Treatment is mainly dietetic and is to be directed toward the correction of the vesical lesion. Suggestion by means of electricity is also of therapeutic value.

August 22, 1904.

1. Surgical Provision for New Passage of the Blood of the Portal Vein, By S. Talma.
2. Folliculitis and Erythema Induratum, By A. Alexander.
3. Increase or Decrease of the Body Weight at Will, By M. Einhorn.
4. Important Röntgen Ray Finding in a Case of Shot in the Eye, By A. Koehler.
5. Electrodiagnostic Examinations with Condenser Discharges (*Concluded*), By L. Mann.

1. **Surgery of the Portal Vein.**—Talma has come to the conclusion that the surgical deviation of blood from the portal vein does not benefit cases of hepatic cirrhosis. He believes, however, that the suture of the omentum to the abdominal wall diminishes the danger of rupture of the distended vessels of the abdominal viscera, although the procedure is probably powerless to cause a diminution of their calibre. The operation is therefore indicated in cases of cirrhosis of the liver complicated by hæmatemesis. Talma narrates in detail a case in which the circulatory disturbances were benefited, the portal vein being occluded at the time of operation.

2. **Tuberculous Affections of the Skin.**—Alexander describes folliculitis and erythema induratum (Bazin) as tuberculous deposits in the skin due to weakened tubercle bacilli circulating in the blood. The practical importance of the nodules they form lies in the fact that they are indicative of a tuberculous focus somewhere in the body.

3. **The Body Weight.**—Einhorn lays special stress upon the use of skimmed milk and increased exercise to bring about a reduction in weight. He states that beauty or symmetry of the form goes hand in hand with health; and he pays particular attention to this in increasing or decreasing weight.

ZENTRALBLATT FUER INNERE MEDIZIN.

August 20, 1904.

1. Echinococcus Fluid, By T. SCHILLING.

1. **Echinococcus Fluid.**—Schilling finds that the freezing point of fluid contents of echinococcus cysts corresponds to that of the human blood while the chloride of sodium percentage is also the same as that of human blood. Schilling suggests, therefore, the possibility that the contents of echinococcus cysts may be only the result of a dialysis of the human tissues.

ZENTRALBLATT FUER GYNAEKOLOGIE.

August 13, 1904.

1. Microscopic Diagnosis of Abortion, By F. HITSCHMANN.
2. Tubal Menstruation, By W. THORN.
3. Modified Bullet Forceps, By O. FRANKL.

1. **Microscopical Diagnosis of Abortion.**—Hitschmann begins by recalling that the claim of Optiz that an early pregnancy can be diagnosticated microscopically by the presence of certain glandular changes, the so called "pregnancy glands," has been overthrown by Sentz, who found the same glands in cases in which no pregnancy had existed. Hitschmann records two cases in one of which no pregnancy existed, although the glands were present; while in the second, the entire ovum was intact, but no Opitz glands were to be found. The author's first case, as well as both of Seitz's cases, were curetted very close to the menstrual period, so that the conclusion is reached that not only nidation of the ovum, but the congestion of menstruation can evoke the papillary form of gland which Opitz has called "pregnancy glands." The forensic importance attached to these glands vanishes if these statements are proven to be correct.

2. **Tubal Menstruation.**—Thorn states that the healthy Falloppian tube does not menstruate. He has purposely operated on menstruating women and found that the tube did not share in the process. Menstruation does occur, however, in pathological tubes, as is shown in cases of atresia and in tubal fistulæ of various kinds. The author records two new cases, in one of which tubal bleeding accompanied the menstrual flow, in the other it took the place of the uterine hæmorrhage.

August 20, 1904.

1. Can Fatal Infections in Clinical Maternity Hospitals Be Avoided? By F. AHLFELD.
2. The Participation of the Endometrium in Gonorrhœal Vulvovaginitis of Children, By P. JUNG.
3. Styptal for Uterine Hæmorrhages, By K. WITTHAUER.

2. **Gonorrhœal Endometritis.** — Jung expresses his conviction that invasion of the endometrium in the gonorrhœal vulvovaginitis of children, is a great rarity. In nine cases which he has carefully examined with great technical difficulty, he found gonococci in the cervical canal but once. In twenty other cases, the germs were found but twice.

3. **Styptal in Uterine Hæmorrhages.**—Witthauer says styptal is phthallic acid catarnine, is sedative and painless in its action, and has no disagreeable after-effects. The dose is from three to five tablets daily [the amount is not stated]. It is useful in any form of uterine bleeding in which uterine contraction is not essential. It is much cheaper than stypticin.

ROUSSKY VRATCH.

August 14, 1904.

1. On the Complete Removal of the Cancerous Uterus by the Abdominal Method. (The So Called Wertheim's Operation), By N. N. FENOMENOFF.
2. On the Operative Treatment of Perforative Typhoid Peritonitis (*To be concluded*), By V. V. LAVROFF.
3. Ptomaine Paralyses, By N. E. KOUSCHEFF.
4. On the Causative Agents of Smallpox, Varioloid, Vaccinia, Chickenpox, Scarlet Fever, Measles, and Typhus Fever. A Preliminary Communication, By P. M. NEVIADOMSKY.
5. On Perforations of the Uterus During the Passage of Sounds or Curettage, By V. N. ORLOFF.

1. **Radical Operations for Cancer of the Uterus.**—Fenomenoff reports seven cases of carcinoma of the uterus, all of which belonged to the class usually styled inoperable, but in which he obtained favorable results by complete removal of the uterus through an abdominal incision by the method of Wertheim. The cases were not adapted to vaginal hysterectomy, and in one of them an ardent advocate of this method refused to operate. Some of the patients have been seen six months after the operation, and in none of these had there been any recurrence. In all cases there was a relief of the symptoms and an improve-

ment of the general condition. A point made by the author in connection with the technics of the operation is the difficulty of isolating the ureters. He advises the operator not only to identify the ureters by sight and touch, but also after having found them, to look at them intently for a few moments. At intervals there will be observed a wormlike peristaltic movement in these canals, which is so characteristic when once observed, that it cannot be mistaken.

2. **Paralysis Due to Ptomaine Poisoning.**—Lavroff's case was one of paralysis due to the ingestion of mutton containing ptomaines. In this instance the acute signs of ptomaine poisoning lasted for six days, when there appeared œdema of the eyelids and the extremities. On the tenth day there came tremors of the limbs, contractions of the muscles of the hands and feet, and pains in the thighs. Intense pruritus of the whole body appeared later, and this condition continued for two months. Numbness was felt in the hands and feet, and finally a gradual paralysis of the extremities appeared.

4. **The Causes of Smallpox, Varioloid, Vaccinia, Chickenpox, Scarlet Fever, Measles, and Typhus Fever.**—Neviadomsky announces the discovery of a vegetable microorganism which, he claims, is the cause of smallpox. This organism possesses an extraordinary set of morphological and biological properties. Inoculations of cultures of this germ cause the development of a characteristic pustule and the inoculation of the contents of the pustule produces a series of similar pustules in other animals. The same microorganisms were found in pure cultures in cases of varioloid and vaccinia. The microorganism thus found, therefore, decides the question as to the relationship of smallpox, varioloid, and vaccinia. The author was able to find also a germ which is the cause of chickenpox, but is not identical with that of smallpox. He was not satisfied with these discoveries, and found, further, the germs of scarlet fever and measles respectively, which resembled each other in shape but varied considerably as to their biological properties. The author promises to publish further details later.

5. **Perforations of the Uterus in Sounding and in Curetting.**—Orloff concludes as follows concerning the occurrence of perforations of the uterus as an accident during sounding or curetting. Perforations may occur during curettage without any great effort on the part of the operator. Perforations may occur not only in the uteri of pregnant women, but also in a variety of other conditions, especially in states of disturbed circulation. Uterine sounds and curettes should always be used with the greatest caution, and the operator should desist at the slightest suspicion of a perforation. The perforations usually occur at the fundus or in one of the walls near the fundus. The treatment of such ruptures should be, if possible, conservative.

August 21, 1904.

1. Ear Affections in Children of School Age (*To be continued*), By A. A. Borchmann.
2. A Case of Acromegaly, By I. I. Kankrovitch.
3. On the Operative Treatment of Perforative Peritonitis of Typhoid Fever (*Concluded*), By V. V. Lavroff.
4. Infantilism in a Girl Aged Fifteen Years, By A. I. Ordinsky.

3. **Operations for Typhoid Perforations.**—Lavroff operated upon thirty-three patients with perforative peritonitis complicating typhoid fever. Of these only four, i. e., twelve-and-one-tenth per cent. recovered. This figure is lower than those reported by other authors, but in any event, Lavroff thinks that the percentage of recoveries after these operations is very small. Whether this high mortality from perforative peritonitis is due to the typhoid infection itself, or to other causes, cannot be definitely stated. Lavroff noted especially that in the patients who recovered there had been an extraordinarily good condition before the operation—a good pulse, and absence of collapse. On the other hand, in those patients who died, even when the operation was performed immediately after the perforation had taken place, there was a marked collapse, a small rapid pulse, great depression, frequent vomiting, and extreme painfulness of the abdomen. These symptoms should not deter us from operating, but, on the contrary, should hasten the operation. Lavroff thinks that there cannot be a modern surgeon who is opposed to operative treatment. Scarcely any one will say to-day, with Fürbringer, that the patient is saved " in spite of the laparotomy."

4. **Infantilism.**—Ordinsky describes a case of infantilism in a girl aged fifteen years. The term infantilism was first suggested by Lasègue, who applied it to those adults who have retained infantile traits of body and mind, in spite of their years. In the case reported, the following characteristics of infantilism were found: The various parts of the body were developed in their proper proportions, but the intellect was that of a child of eight or nine years, and the genital organs corresponded in development. The skin was flaccid and wrinkled, pale in color, and the hair was scanty. The general attitude was one of apathy. The treatment consisted in the use of general massage and the administration of the thyreoid extract. Under these influences the patient gradually improved. The dyspnœa disappeared, and the pulse rate was lowered from 140 to about 110 beats. The short time of observation did not allow the author to determine the prognosis definitely.

August 28, 1904.

1. On Uncomplicated Gunshot Wounds of the Stomach, By V. A. Oppel.
2. On the Question as to the High Position of the Scapula, By A. A. Vorobieff.
3. Ear Disease in Children of School Age (*Concluded*), By A. A. Borchmann.
4. The Organization of the Prevention and Treatment of Diseases of Women in Town and Country in Russia (*To be continued*), By N. M. Kakoushkine.

1. **Gunshot Wounds of the Stomach.**—Oppel says that, while we cannot prove by statistics the necessity for operative treatment in gunshot wounds of the stomach, surgical interference is undoubtedly logically required as soon as possible after the injury. It cannot be said, however, that a laparotomy is required in all cases of gunshot injuries of the stomach alone. In cases in which the patient comes to us with an old gunshot injury of the stomach, at least with an injury that is over twenty-four hours old, we must judge the necessity for a laparotomy on the merits of each individual instance. If twenty-four hours have elapsed without any sign of peritonitis, it may be assumed that the wound in the stomach has so effectually closed that no peritoneal leakage is taking place, and, therefore, that there will be no further danger of peritonitis.

2. **High Scapula.**—Vorobieff draws the following conclusions from a detailed study of abnormally high scapulæ. High scapulæ may occur as a congenital or as an acquired condition. The congenital forms are due to anomalies in the formation of the scapula or of the muscles which support it. Kausch showed that the lower portion of the trapezius plays an undoubted rôle in the causation of high scapula. The acquired forms are usually the result of rickets occasioning changes in the scapula itself, and Vorobieff reports a case in which an acquired high scapula was the result of muscular dystrophies. Cases which are dependent on causes outside of changes in the bone itself, or the muscles surrounding it, should be distinguished from the forms originally described by Sprengel.

3. **Ear Diseases Among School Children.**—Borchmann found that in thirty per cent. of school children some affection of the auditory apparatus was present. In most cases the source of these affections could be traced to causes that occurred before these children reached the school age, and the school directly had no special influence on the development of ear affections. Along with ear affections school children showed a great frequency of diseases of the throat and nasopharynx, especially the presence of adenoid growths which in many instances were the cause of the ear trouble. The author recommends that school children be examined periodically as to the state of their hearing by competent specialists. Teachers should also be instructed to warn parents of the importance of taking care of the ears of their children and of having any affections in these organs promptly attended to.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

September 24, 1904.

1. Appendicitis in Children, By A. J. McCosh.
2. The Diagnosis of Appendicitis. Should the Appendix Be Removed When the Abdomen is Opened for Other Conditions? By Floyd W. McRae.
3. Factors in the Mortality of Appendicitis, By John B. Deaver.
4. The Mortality and Management of Pneumonia, By Edward F. Wells.
5. Pneumonia. The Study of a Series of Cases, with Special Reference to Diagnosis and Complications, By Joseph Sailer.
6. Old Unreduced Dislocations, By De Forrest Willard.
7. Autochthonous Sinus Thrombosis of the Cerebral Dura. With Report of Three Cases, By William G. Spiller, and Carl D. Camp.
8. A Case of Early Acute Pancreatitis Without Hæmorrhage, By H. H. Germain, and H. A. Christian.
9. X Ray Therapy in Leucæmia. With Special Reference to Lymphatic Leucæmia. A Preliminary Report, By Joseph A. Capps, and Joseph F. Smith.
10. Travel Notes. X. A Winter Semester, By Lewellys F. Baker.

1, 2, and 3. See this *Journal,* Vol. LXXX, page 45.

4 and 5. See this *Journal,* Vol. LXXIX, page 1167.

6. See this *Journal,* Vol. LXXX, page 84.

9. **Leucæmia.**—Capps and Smith have been able to find reports of 11 well verified cases of leucæmia that have been treated by the x ray. They report one additional case and give the termination of the case which was reported by Senn. The authors reach the following general conclusions: (1) The action of the x ray in leucæmia seems to be of two kinds: (a) A local influence on the spleen and glands, characterized by an inflammatory reaction and later by a breaking down and disintegration of the gland tissue. (b) The formation of toxines which have an inhibitory action on the manufacture of leucocytes by the bone marrow. It is well known that acute infections occurring in leucæmia, such as pneumonia, septicæmia or terminal infections, tend to inhibit the production of white corpuscles and often cause a reduction in the size of the spleen or gland tumors. The x ray toxines may be compared to those produced by such infections. (2) In no recorded instance of either lymphatic or splenomyelogenic leucæmia has the spleen tumor entirely disappeared. (3) With the discontinuance of the x ray, the disease, after varying periods, tends to reassert itself. (4) Death may take place when the glands and spleen are smallest, and when the white count is normal. (5) Acute cases seem to receive no benefit from the x ray. (6) The chronic form of lymphatic leucæmia responds to the x ray even more promptly than the splenomyelogenic type. In every instance the glands rapidly softened and dwindled to small proportions. (7) The x ray holds the disease process in abeyance, but probably is not curative. Yet it is too soon to say that persistent treatment of an early case may not give permanent relief.

BOSTON MEDICAL AND SURGICAL JOURNAL.

September 22, 1904.

1. The Tendencies of the Practice of Medicine as a Profession and an Art, By Lewis M. Palmer.
2. Examination of Pleural Fluids with Reference to Their Ætiology and Diagnostic Value (*To be continued*), By Percy Musgrave.

2. **Examination of Pleural Fluids.**—Musgrave, in this, the first instalment of his paper, covers the following topics: (1) The significance of the physical characteristics of pleural effusions and the diagnostic value of the study of the cellular elements they contain. Widal and Ravaut, in 1900, announced their so called cytological for-

mulæ which later studies have shown to be in large measure correct. These laws are: (1) A predominance of lymphocytes means a tuberculous effusion. (2) A predominance of polynuclear leucocytes means an effusion of an acute infectious origin. (3) A large number of endothelial cells, occurring especially in sheets or plaques, means a mechanical effusion or transudate. The author discusses the limitations and the applicability of these diagnostic criteria. (2) The technics of cytodiagnosis. The author's method of obtaining the pleural fluid, of preparing and fixing and staining the slides is given in detail. (3) Inoscopy. This is the name given by Jousset to his method of demonstrating tubercle bacilli in pleural fluids. The procedure is of value in some cases. The technics of inoscopy is described in detail. This much of the paper is in the nature of introductory remarks. The balance of the paper is based on a systematic study of the serous fluids withdrawn from seventy-two cases of pleural effusion. The chemical and microscopical examinations of these fluids, the results of their inoculation into animals, and their culture products are studied in the light of the patients' clinical histories. This part of the paper will be abstracted next week.

MEDICAL RECORD.

September 24, 1904.

1. Operations Upon the Eyeball in the Presence of an Infected Conjunctival Sac, By CHARLES STEDMAN BULL.
2. The Use and Abuse of Athletics, By ROBERT E. COUGHLIN.
3. A Clinical Study of Certain Forms of Pericarditis, with Report of a Pericardial Effusion Complicating an Extensive Burn of the Chest, By H. EDWIN LEWIS.
4. Social Causes of Criminal Abortion, By INEZ C. PHILBRICK.
5. The Genesis of Sleep, By AXEL EMIL GIBSON.
6. Icterus in Secondary Syphilis, By B. C. HYDE.
7. Polymastia Among Enlisted Men of the Marine Corps, By RALPH O. MARCOUR.

1. **Operations Upon the Eyeball.**—Bull concludes his paper with a summary too long for reproduction in full. Condensed it is: (1) A careful microscopical and bacteriological examination should be made of the contents of the conjunctival sac in every suspected case. (2) If toxic germs are found in great numbers, no matter what their varieties, no operation on the eyeball should be undertaken. (3) If there be suppurative disease of the lacrymal passages, whether of canaliculi, sac, or nasal duct, all operations upon the eyeball are positively contraindicated. The lacrymal sac must be excised, and the lacrymal puncta must be obliterated by the galvanocautery, before any operation on the eyeball is undertaken. (4) If the secretion of the conjunctival sac on examination is found to be infected, but the bacteria are few in number and of slight toxic variety, operations may be done on the eyeball when necessary, but these eyes should be opened and examined twice in the twenty-four hours, and the conjunctival sac gently irrigated with warm normal salt solution, or warm sterilized boric acid solution, and then the eye should be immediately rebandaged. (5) In all cases the bandage should be removed and the eye examined under the strictest aseptic precautions, as strict as those employed at the time of operation. (6) On the first sign of infection of the wound the edges of the lids are to be thoroughly cleansed in the same manner as at the time of operation; the conjunctival sac is to be thoroughly irrigated with the sterilized normal salt solution; the wound is to be reopened and cauterized through its entire length with the galvanocautery; and the anterior chamber is to be gently but carefully irrigated with a sublimate solution (1-5000); and then the conjunctival sac must be again irrigated, and the lids must be closed simply under a moist sterilized pad.

2. **Athletics.**—Coughlin asserts that, although the evidence for and against athletics is contradictory, the whole subject may be summed up by stating that athletics are beneficial when properly and judiciously applied and very injurious when these precautions are ignored or carelessly regarded. There is no proof that athletics and muscle building improve the constitution. One cannot judge of a person's health by the size and hardness of the muscles. Moreover, it must be borne in mind that hypertrophied muscles tend to degenerate and that the heart, which is a muscular organ, follows this tendency.

3. **Pericarditis.**—Lewis, in addition to reporting the case described in the title of his paper, makes some general remarks on pericarditis and its symptoms. With regard to treatment he gives the following advice: The pain of pericarditis can often be relieved promptly by dry cupping or counter irritation over the painful region. Absolute rest in as prone position as possible is a most important regulation. Antirrheumatics are useless, and nothing approaches the value of Epsom salts in large and often repeated doses, always administered in saturated solution. Heart tonics and stimulants are contraindicated, unless there is evidence of cardiac failure. When effusion takes place and the conditions are not alarming, it is always safe to wait, for it is often remarkable how rapidly improvement may take place by natural processes alone. When the effusion increases to an alarming extent and the patient grows rapidly worse, paracentesis is the thing to do, and the only thing. Carefully done under aseptic precautions, inserting the needle at the point prompted by individual conditions, paracentesis is far less dangerous than to let the patient continue two hours longer in an extremely precarious condition.

4. **Abortion.**—Philbrick holds that abortion is fundamentally neither a legal nor a medical question. It is a social question and can only be understood through a scientific study of society, past and present. Such a study the author attempts. He inclines to the opinion that there are too many pregnancies at present, but that the solution of the difficulty does not lie in criminal abortion, but in a higher development of the race. Three things will tend to limit pregnancies and abortions: (1) The further emancipation of women. (2) The development of the practice of marital continence. (3)

The education of the public to such a point that they will realize that the fœtus is just as much alive before quickening as after.

6. **Icterus in Syphilis.**—Hyde reports one case of icterus due to syphilis. He has been able to collect in the literature only a total of 127 cases.

AMERICAN MEDICINE.

September 24, 1904.

1. Tuberculosis of the Abdominal Lymph Glands: Its Complications, Diagnosis, and Treatment,
By CHARLES F. PAINTER, and WILLIAM G. ERVING.
2. Concerning the Syndrome of Conus Medullaris and Cauda Equina, By ALFRED GORDON.
3. Case of Congenital Supracotyloid Dislocation of the Hips with Cross Legged Progression,
By HENRY LING TAYLOR.
4. Nerve Blocking to Prevent Amputation; Shock; Illustrative Reports of Two Thigh Amputations,
By HERMANN B. GESSNER.
5. A Case of Ruptured Tubal Pregnancy; Operation; Followed by Sapremia, Septicæmia, Erysipelas: Recovery,
By WILLIAM H. TELLER, and MOSES BEHREND.
6. Garlic: A New Cure for Tuberculosis and Lupus,
By JOHN KNOTT.
7. Insomnia of the Aged, By CHARLES J. ALDRICH.
8. Button in the Ear 27 Years. Deafness Cured by Its Removal, By J. J. RICHARDSON.

1. **Tuberculosis.**—Painter and Erving hold that there are several conditions in and about the spine not associated with a kyphosis which give rise to many of the cardinal symptoms of vertebral tuberculosis. The purpose of their paper is (1) to show that tuberculosis of the abdominal lymph glands may give rise to spinal symptoms; (2) to distinguish symptoms produced in this way from similar symptoms produced by other diseases, and (3) to suggest, though the absolute proof is wanting, that in some cases vertebral tuberculosis is caused by a direct extension from tuberculous abdominal lymph nodes. Each of these points is discussed at some length and nine illustrative cases are reported.

2. **The Syndrome of Conus Medullaris and Cauda Equina.**—Gordon reports a case of disease of both the conus medullaris and cauda equina. The pathological condition responsible for the symptoms observed was in all probability a hæmorrhage in the conus (hæmatomyelia) with a secondary involvement of the cauda equina around the conus and extending slightly upward to those nerve bundles of the cauda which lie immediately above the arbitrary level of the conus. The paper is a study in spinal localization and it cannot be profitably abstracted.

4. **Nerve Blocking.**—Gessner has employed Cushing's nerve blocking method in two cases of amputation of the thigh. In both cases there was total absence of shock during and immediately following the operation. In one case there was delayed shock. The author, from his experience, concludes that this method is worthy of more extended trial.

5. **Ruptured Tubal Pregnancy.**—Teller and Behrend report one case whose summary is the title of their paper. The following are the chief points of interest: "(1) The remarkable fortitude displayed by our patient in first operation performed without a general anæsthetic. She says she experienced very little pain after the abdomen was opened. The stitches were painful. (2) The occurrence of a badly infected wound, followed by a sapræmic condition. (3) The appearance of a pelvic mass two weeks after the first operation, with the signs of peritonitis. (4) The opening of Douglas's sac without anæsthesia and the introduction of drainage. (5) The reappearance of the pelvic mass with symptoms of septicæmia. (6) Operation under ether, in which the mass was broken up and kept drained for a long time. (7) The putrid character of the discharge which continued to come from the vagina for two weeks. (8) The almost entire disappearance of the pelvic mass. (9) The great tolerance of strychnine and whiskey. (10) The occurrence of erysipelas of the face, which led us to believe that possibly we were dealing all along with a streptococcic infection. (11) We believe recovery in this case was due to the enormous quantities of liquids ingested and the physical endurance of the patient."

6. **Garlic.**—Knott shows that garlic was held in great esteem by the ancients as a cure for and preventive of disease. He believes that whatever power the drug may have is probably due to the allyl compounds it contains. The author quotes Carrazzani thus: "(he) believes that a sufficiently generous use of garlic in tuberculosis will produce immunity against infection. Of a group of guinea pigs kept in an atmosphere charged with tubercle bacilli, those whose daily diet had contained 1 gm. of garlic were found at the end of three months to be free from tuberculosis, while the others were all badly infected. The amount of garlic which would be required to produce immunity in the human body has apparently not been computed. The views of Dr. Carazzani include a hint at an explanation for the comparatively low death rate from pulmonary tuberculosis among the Italians, both in their own country and in America."

7. **Insomnia of the Aged.**—Aldrich believes that the insomnia of the aged is due to atheromatous deposits and to fibrinous thickenings of the cerebral vessels.

MEDICAL NEWS.

September 24, 1904.

1. Home Treatment of Tuberculosis by Means of Hospital Dispensaries, By JOHN W. BRANNAN.
2. Bone and Cartilage in the Tonsil,
By JAMES E. NEWCOMB.
3. The Distinction Between Fracture of the Neck of the Femur and Epiphyseal Disjunction in Early Life, With Reference to Its Influence Upon Prognosis and Treatment, By ROYAL WHITMAN.
4. The Rectal Administration of the Newer Hypnotics,
By MORRIS MANGES.
5. The Medical Treatment of Appendicitis,
By A. J. HALL.
6. The Correction of Abnormal Conditions of the Blood Relative to Surgical Operations, By S. C. EMLEY.

7. Addison's Disease, With and Without Adrenal Tuberculosis, . By Charles F. Withington.

1. **Tuberculosis.** — Brannan describes the measures that have been instituted at the city hospitals for the management of cases of tuberculosis. The work was planned by Dr. Miller, and is carried out under his supervision. The objects of these special clinics are: (1) Careful and thorough medical attention. (2) Systematic investigation and supervision of the home conditions of each patient. (3) Education of the patients and their families. (4) The study of the social and economic conditions. (5) The opportunity for systematic investigation. The author takes up each one of these points and describes the measures that have been adopted to carry them out.

2. **Bone and Cartilage in the Tonsil.**—Newcomb reports one case in which he found the point of the styloid process projecting into the tonsil. Bone and cartilage in the tonsils is derived probably from one of two sources. They are due either to projections into the tonsillar tissue of some portion of the bones of the head, or they are of inflammatory or embryonic origin. References are given to numerous cases which are scattered throughout the literature.

3. **Fracture of the Neck of the Femur.**—Whitman insists that fracture of the neck of the femur is relatively common in early life. It is important to distinguish, if possible, between fracture and epiphyseal separation, since the treatment of the two conditions differs. The author discusses the chief points in diagnosis: Simple fracture should be treated by fixation at the limit of normal abduction, an attitude which implies restoration of the depressed neck to its normal position. Partial epiphyseal separation should be treated by direct operative reposition of the head. Excision, which is at present in such favor with German surgeons, should be an operation of necessity rather than of choice. One should never be content with mechanical support however efficient it may be in relieving the immediate symptoms, for, recognizing the fact that normal function is dependent upon normal form, one should always aim to remedy deformity whenever it is practicable.

5. **The Medical Treatment of Appendicitis.**—Hall states that an efficient medical treatment of acute appendicitis is as follows: Rest in bed, hot poultices to the abdomen, a liquid diet, chiefly composed of milk, four to six enemas a day, internally the arsenite of copper and creosote. Purgatives and opiates are not to be used. The tendency of appendicitis is toward recovery. All acute cases should be treated medicinally until, after mature deliberation, it is shown that operation offers a better prospect for recovery. In recurrent cases operation should be advised during the interval after recovery from the second attack.

7. **Addison's Disease.**—Withington objects to designating as Addison's disease only cases of adrenal tuberculosis. The term Addison's disease is to be considered to indicate a clinical syndrome, consisting of bronzed skin, constitutional disturbance, gastrointestinal irritation, and usually progressive weakness. The bronzing is the most conspicuous feature, but not the solely essential one. It has been said to be an indirect rather than a direct adrenal symptom. It may even be absent, though, if so, the disease can hardly be diagnosticated ante mortem. If this definition be accepted then Addison's disease may be classified as follows: (I) Cases with skin bronzing: (*a*) Adrenal tuberculosis, the commonest type of Addison's disease; (*b*) Adrenal disease, non-tuberculous: Atrophy, chronic interstitial inflammation, cancer, occlusion of adrenal vein, hæmorrhages; (*c*) No adrenal disease: (1) With disease of the semilunar ganglion; (2) without disease of the semilunar ganglion; (3) pigmentation, usually without other symptoms of Addison's disease. (II) Cases without skin bronzing: (*a*) Adrenal tuberculosis: (1) With tuberculosis elsewhere; (2) without tuberculosis elsewhere; (*b*) Adrenal disease, non-tuberculous: (1) Cancer; (2) tumors; (3) necrosis, etc. It is on this classification that the author bases his paper. A number of illustrative cases is reported.

MISCELLANEOUS

Gastroenterostomy for Simple Ulcers of the Stomach and Duodenum.—Moynihan (*Annals of Surgery* for August, 1904) presents a report of 100 cases of gastroenterostomy for the relief of simple ulcers of the stomach. In 92 cases the results were entirely satisfactory, and in the entire series there were but 2 deaths. In 85 of the cases operation was performed for the relief of chronic ulcer with intractable dyspepsia, and in the remaining 15 for profuse recurrent hæmorrhages. In each class of cases there was 1 death. In 58 cases but a single ulcer was noted. In 20 cases two ulcers; 4 cases three ulcers; and in 7 cases there were multiple ulcers. Duodenal ulcer alone was found in 9 cases; duodenal coexistent with gastric in 13 cases. Hæmatemesis was a symptom in 36 cases, melæna in 3, and in all cases pain was the most constant symptom. Distention of the stomach was the causative factor in the production of most of the recurrent hæmorrhages.

It is the belief of the operator that gastroenterostomy will (by emptying the stomach) relieve most cases of hæmorrhage without excision of the ulcer. In the 6 cases remaining operation did not relieve, and in every one of these pronounced hyperchlorhydria existed. Three improved under subsequent medical treatment and are now well. The 3 remaining are still under treatment. To avoid regurgitant vomiting the author strongly urges that the lower end of the opening be made at the greater curvature. The preliminary measures consist in requiring that the patient's teeth be brushed freely every two hours and an antiseptic mouth wash used for several days prior to operation, during which period every particle of food given is liquid and sterile. Five grains of calomel are given on the third day before operation and on the morning following a saline aperient, followed by an enema in the evening, when the stomach is also washed out. This last procedure is repeated about an hour prior to operation.

Book Notices.

A Textbook of Human Physiology. By ALBERT P. BRUBAKER, A. M., M. D., Professor of Physiology and Hygiene in the Jefferson Medical College; Professor of Physiology in the Pennsylvania College of Dental Surgery, etc. With Colored Plates and 354 Illustrations. Philadelphia: P. Blakiston's Son & Co., 1904. (Price, $4.00.)

In this textbook of 700 pages there is presented an admirable exposition of the facts of physiology brought down to the latest date. The writer's twenty years' experience in teaching has made him familiar with the requirements of students, to whom the work will prove most satisfactory, and the care evinced to show the important relations of physiology to clinical medicine will make the book attractive also to physicians. The histology of nerve tissue, the secretions of the ductless glands, physiological chemistry, and the minute structure of the blood, subjects in which the greatest recent advances have been made, receive intelligent and adequate treatment. There is an excellent chapter on foods. The illustrations are numerous and show a wide range of selection from the best authorities. A few minor omissions may be noted. In a work in which emphasis is laid on the clinical aspects of physiology some mention should have been made in the section on muscular contraction of the phenomenon of myoœdema, and it would seem that a description of Hammerschlag's simple method of estimating the specific gravity of the blood should have found a place in the chapter on hæmatology. Detailed technical methods and descriptions of physiological apparatus have been wisely excluded from the body of the text. These are considered, however, at some length in an appendix. The author's style is lucid, concise, and pleasing. The work is one which may be warmly commended in every respect.

Railway and Other Accidents, with Relation to Injury and Disease of the Nervous System. A Book for Court Use. By ALLAN MCLANE HAMILTON, M. D., F. R. C. S. E., Late Clinical Professor of Mental Disease in Cornell Medical College; one of the Consulting Physicians of the Manhattan State Hospitals, etc. With 15 Plates, 2 Superimposed Charts and 36 Illustrations. New York: William Wood & Co., 1904. (Price, $3.50.)

To touch lightly yet effectively on the salient points where law and medicine meet in the field of personal injuries, to furnish legal facts useful to the physician, and medical facts—or theories—serviceable to the lawyer, and to do this in a restricted number of pages is the task the author sets himself. It goes without saying that any single volume launched with this purpose will come in for its share of criticism on the score of incompleteness. The lawyer will fail to find adequate explanations of mysterious nervous conditions which high priced oracles descant upon from the witness chair; the physician will soon discover that he has not bought a Blackstone. Such criticism as this the author must have been prepared for when he wrote the book, and such incompleteness need astound no reasonable purchaser.

In the space at his disposal Dr. Hamilton has been signally successful. Years of practical experience have qualified him to speak authoritatively, and the cases and incidents he cites are valuable contributions to the casuistics of the subject, are succinctly told, and are characterized throughout by lack of bias. A careful search of Dr. Hamilton's pages gives no hint as to whether he favors plaintiff or defendant. He recognizes the disabling effects of certain mental impressions at the same time that he points out how easily they may be made to appear more serious than they really are. This virtue of impartiality, alone, entitles the book to high commendation, for nothing is more difficult in this subject, as previous writers have found, than to preserve the even tenor of one's way.

After the introduction, retrospective and general, the functional effects of injury to the nervous system are described under the term accident aboulia. That these conditions are due to mental impressions, for which the accident itself is only in part responsible, is emphasized. Then follow chapters on injuries to the cranium, traumatic insanity, injury of the vertebral column and its contents, and peripheral nerve injuries. The concluding chapters are on examination and the possibility of error, prognosis in relation to verdict, and fraud. Many useful hints are given regarding the examination of litigants and the methods of determining whether symptoms are real or feigned. The author believes the prognosis in hysteria more grave than in neurasthenia. The chapter on fraud gives many new and old instances of claims for fictitious or substituted injuries. A glossary and a carefully made index complete the volume, which is strongly recommended to all who have to do with claims for injuries to the nervous system.

Die Tuberkulose. Ihre Aetiologie, Prophylaxis und Therapie. Nach klinischen Erfahrungen und Versuchen dargestellt von Dr. J. GOLDSCHMIDT. Leipzig: F. C. W. Vogel, 1904. Pp. 81. (Price, 3 mks.)

Goldschmidt, in this little volume, gives us his experience of forty years of practice among consumptives. Regarding the ætiology, he lays down the well known direct and indirect causes. He does not accept Koch's new theory, but believes in the transmission of bovine tuberculosis to the human race. As a predisposing cause of the development of tuberculosis he mentions debilitating diseases and pathological malformations. At the same time he gives a table of pathological conditions and diseases which, in his opinion, are a hindrance to the development of tuberculosis. Under the predisposing factors he emphasizes a decreased volume of the pulmonary arteries and a small heart, acute pneumonia, typhoid fever, influenza, measles, syphilis, lepra, alcoholism, chlorosis, rhachitis, suppuration, and morphinomania. In his table of "conditions which hinder the development of tuberculosis" he mentions hypertrophy of the right ventricle, large sized heart and all heart diseases accompanied by pulmonary hyperæmia, emphysema, asthma, acute articular rheumatism, malarial diseases, gout, locomotor ataxia, and carcimona. It is interesting that he also classifies rapid "anti-fat" cures as a predisposing factor to tuberculosis.

The prophylactic measures enumerated by the author are the ones well known, and his therapy differs little, if at all, from the methods in vogue in all well equipped sanatoria. Only in his views concerning the selection of cases for sanatoria he differs with most students interested in the tuberculosis problem. He is opposed to taking early cases into sanatoria and wishes them to be watched, particularly when the patients are poor or of moderate means. He recommends cities to be divided into districts, with stations presided over by physicians, to which the incipient cases should be assigned for treatment and supervision. All advanced cases among the poorer classes should, in his opinion, be at once transferred to a sanatorium or hospital. The author is thoroughly optimistic and believes that within fifty years tuberculosis can and will be eradicated as an endemic disease. While not agreeing to all of the author's conclusions, we think the book instructive and well worth perusal by all those interested in the tuberculosis problem.

Radiotherapy and Phototherapy. Including Radium and High Frequency Currents, Their Medical and Surgical Applications in Diagnosis and Treatment. For Students and Practitioners. By Charles Warrenne Allen, M. D., Professor of Dermatology in the New York Postgraduate Medical School; Consulting Dermatologist to the Randall's Island Hospitals, etc. With the cooperation of Milton Franklin, M. D., Lecturer on Electroradiotherapy, New York Polyclinic Medical School, and Samuel Stern, M. D., Radiotherapist to Dr. Lustgarten's Clinic at the Mount Sinai Hospital; Clinical Assistant to the Skin Department of the New York Postgraduate Medical School. Illustrated with 131 Engravings and 27 Plates in Colors and Monochrome. New York, Philadelphia: Lea Brothers & Co., 1904.

This is a handsome volume of six hundred pages, with eighty illustrations showing the results of x ray treatment. The book contains also thirty illustrations of apparatus, but no radiographs. The introduction states that, as there are so many excellent works on the practical and technical side of radiography, this subject has been but briefly treated of, and the space thus gained has been devoted to the newer and more important field of radiotherapy.

In general the descriptions of x ray apparatus and technics are correct and practical, even if they are not intended to be exhaustive. There is one point to which exception will be taken, and that is in the matter of the direction of the greatest intensity of the x ray. The author figures this as at a right angle to the surface of the "anode" and gives a picture of a "focus tube" devised by Dr. Franklin. In this tube the cathode is inclined at such an angle that its stream of molecules is directed against the "anode," which is placed in a vertical position at the back of the tube, and thus, according to the author, the greatest intensity of radiation is directed straightforward. Later in the book, however, the author admits that there is some doubt about this. Of course, very many workers have concluded that the greatest intensity of x ray from a tube of the *ordinary design* proceeded straight forward, so that the angle of incidence of the cathode stream was equal to what might be termed the angle of reflection of the x ray.

The book contains descriptions of the technics and results of no fewer than six hundred and seventy-five authors of books and papers on the subject, and is in this respect more complete than any other x ray book we have seen.

The statement is quoted from Ottolengui that the x ray will not shine through dead lungs and that it may be used as a test of death. The palpable improbability of this observation should have been pointed out, and apropos thereof we may mention the fact that one of the skiagraphs shown at the recent annual meeting of the American Röntgen Ray Society completely disproves it. The picture we refer to is one by P. M. Hickey, of Detroit. It is a skiagraph of the chest of a cadaver with pulmonary tuberculosis, and shows no difference from pictures of living chests. The same natural skiagraphic appearance of the lungs in a cadaver was seen in a picture shown by Rifahler at the same meeting.

Many interesting and instructive cases are quoted in which the x ray has been successfully employed in the location and removal of foreign bodies. There are also the records of some of the mistakes which have been made. One of these is the case reported by Crile, of Buffalo, in which a set of false teeth was supposed to be seen in the œsophagus; an operation was performed, the patient died, and the false teeth were found in the patient's bed. In two other cases Mikulicz failed to discover sets of false teeth with the x ray which were readily found by the bougie. Then, again, König performed a laparotomy for a set of false teeth showing as a vague shadow in the ileocæcal region; the false teeth being subsequently discovered in the patient's bed. These are only curiosities, but they show the need for special training in the application and interpretation of the x ray in diagnosis.

The technics recommended for the treatment of superficial lesions involves the employment of a soft tube, and for deep lesions a tube of somewhat higher vacuum. The period between the first and second exposures should be at least three days, and the author prefers from seven to ten days. The liver and kidneys should be kept active, and treatment should be suspended in case of kidney distress.

The x ray is to be recommended for the treatment of malignant disease: 1. When there are extensive denuded or ulcerated surfaces. 2. Where there is a hypertrophic change in connection with the epithelial process, giving papillomatous and nodular outgrowths, these may not respond promptly to treatment and should be removed before the ray is applied. 3. When the process involves rather deeply the skin and underlying tissues, including the bone, the x ray should be given the fullest trial, and operative measures be resorted to only when the ray has utterly failed. 4. When there are delicate structures involved which would render it difficult to confine the action of a caustic within safe limits, or where an operation would certainly entail disfigurement, the x ray is to be chosen as the best means available. 5. When an epithelioma in any region has been removed by means other than the x ray, the latter should be used in removing a recurrent growth. For cancer which has extended deep and threatens great bloodvessels the x ray offers the only chance of cure. Affected glands often subside simultaneously with the disappearance of the primary growth.

In sarcoma the weight of authority shows the ray to be capable of causing the disappearance of masses and of inhibiting increased growth during its employment, but it has so far shown little power to prevent recurrence. The benefit which can be produced, however, is of the greatest importance.

Dr. Allen has naturally used the x ray in the treatment of many forms of skin disease, and from his own cases or those recorded by others he reports success in acne, blastomycosis, clavus, eczema, hyperidrosis, hypertrichosis (not very satisfactory in his own hands), keloid, lupus, mycosis fungoides, nævus, Paget's disease, pruritus, psoriasis, sycosis, trichophytosis, ulcers, and xeroderma pigmentosum.

The author is correct in attributing to the x ray a beneficial effect in ozæna, but the single case quoted from another operator in which attacks of epilepsy became milder and less frequent needs the corroboration of many other cases, and so do the cases of tables quoted from other operators as having been improved and one as having been accompanied by recovery of the knee jerk.

In regard to tuberculous disease, the author's estimate of seventy per cent. of symptomatic cures in the cases on record gives rather too rosy a view of the outlook in such cases, but the x ray is of very great value in the treatment of almost every manifestation of the disease.

There is a good description of the x ray burn and of the simple measures which suffice to protect the patient and the operator from it.

Under the heading of phototherapy there are described sun baths, the incandescent electric light bath (acting very much like a Turkish bath), the arc light (useful in tuberculous disease of the larynx), the blue light (for asthma, lupus, neuralgia, and tuberculous disease), and the red light. The different apparatus for the application of the ultra-violet ray are well described.

Under the head of radiochemical therapy the author mentions the internal administration of iodide of potassium and then the local use of the x ray. In this way the effect of free iodine in the tissues may be obtained.

A chapter is devoted to radium. It may prove useful in the diagnosis of cataract. It will apparently be useless in the treatment of blindness. Cures are on record of lupus and of epithelioma, especially of the smaller cavities, such as the mouth.

The chapters on high frequency currents are excellent, and descriptions are given of the d'Arsonval transformer, Oudin's resonator, Rochefort's double resonator, d'Arsonval's solenoid, Piffard's transformer, and all the other apparatus used in exciting and applying this new and wonderfully effective form of electricity. The local effect of a feathery discharge rich enough to produce tiny sparks is a decided vasoconstriction, followed almost immediately by dilatation. When the glass vacuum electrode is in close contact with the skin there is usually no such effect.

Dr. Allen's book is almost a cyclopædia of what has been done with the x ray, high frequency currents, and allied agents, besides recording his own special work in the treatment of skin diseases, and will prove of permanent value.

BOOK AND MAGAZINE NOTES.

A thorough mastery of the work of Ehrlich and his pupils is essential to all further investigations in immunity. The accounts of their experimental studies, originally scattered throughout a large number of periodicals, have recently been collected by Ehrlich and arranged in logical sequence under the title Gesammelte Arbeiten zur Immunitätsforschung (Collected Studies on Immunity). The work consists of articles on immunity and related subjects published during the past four or five years by the workers in Ehrlich's laboratory. It embraces thirty-eight essays, of which fourteen are the work of Ehrlich alone or in collaboration, and the others mainly by Morgenroth, Neisser, and Sachs, all followers of Ehrlich. The original German is exceedingly difficult reading for any one not thoroughly conversant with that language, and an English translation should therefore be heartily welcomed by a large number of laboratory workers. Dr. Charles Bolduan, who has recently translated Wassermann's primer on the same subject under the title Immune Sera, is now engaged on the translation of this work, and it will probably be ready early in 1905. The publishers are John Wiley & Sons, of New York, and Chapman & Hall, of London.

A singular feat of memory, of moment to physicians interested in psychology, is that of expert chess players, who engage several opponents in as many games, when blindfolded. "There are 318,979,564,000 ways of playing the first four moves on each side of a chess board," says Paul Severing in *Everybody's Magazine* for October. "Yet Harry N. Pillsbury has played against as many as twenty-two different boards at one and the same time, without seeing a single board, and has won a large majority of the games. Seated with his back to the other players and constantly smoking a big cigar he is apparently able to visualize and to remember twenty-two different pictures, in each of which thirty-two chessmen are being changed about in an infinite variety of combinations. There is seldom any hesitation on Mr. Pillsbury's part in recalling the picture presented on any given board. The referee calls the number of the board and the move made by the player thereon and instantly the reply comes back from the master with a request for the move on the next board. Before Pillsbury's time the record for blindfold play was sixteen games played in two days by Zukertort. In Chicago, in 1900, Pillsbury played sixteen simultaneous blindfold games in four hours and fifty-five minutes, winning twelve, drawing three, and losing one."

PUBLISHERS' ANNOUNCEMENT.

THE MACMILLAN COMPANY, 66 Fifth Avenue, New York.

The Macmillan Company state that Doctor Tom: The Coroner of Brett, the first novel by Dr. John Williams Streeter, who wrote The Fat of the Land, is a tale of a mountain feud in Kentucky. A young and wealthy physician goes to live with his mother's people in the moonshine region, and he finds himself mixed up in a feud. The book's theme is the reformation which this manly young fellow effects throughout the county. Through his example the mountaineers drink less whiskey and more coffee, they box more and fight less, they raise more hog and less hell, they bring in the railroad, which taps the mineral wealth, and they come to have more regard for human life, for cleanliness, and for helpfulness. Throughout, the book is full of fun and spirit, as well as of romance; and its people are manly men and charming women.

BOOKS, PAMPHLETS, ETC., RECEIVED.

Transactions of the American Association of Obstetricians and Gynæcologists. Vol. XVI. For the Year 1903. New York: Rooney & Otten Printing Company, 1904.

Thirteenth Annual Report of the Secretary of the State Board of Health of the State of Michigan, for the Fiscal Year Ending June 30, 1902. Lansing, Mich.: Robert Smith Printing Company, 1903.

Proceedings of Societies.

INTERNATIONAL CONGRESS OF ARTS AND SCIENCE.

DEPARTMENT OF MEDICINE.

Meeting in St. Louis, September 20, 1904.

Dr. William Osler, of Baltimore, in the chair.

The Modern Conceptions and Methods of Medical Science.—Dr. William T. Councilman, of Harvard University, said that present conditions in medicine and literature showed a great change both in the conception of medicine and in the method by which those conceptions were reached. Medicine had severed all connection with speculative philosophy and taken its true place among the natural sciences. Progress in medicine had kept pace with progress in all departments of knowledge. Medicine had for its problems the cause, nature, prevention, and cure of disease. Disease had come to be regarded as a condition of living things in which there was disharmony of function. The phenomena of life depended upon the action exerted upon living tissue by its surroundings. When such action led to forms of activity differing from and failing to come into accord with the usual activities, the cause of such an action was a cause of disease. In the advance of knowledge of medicine that knowledge had been sought by two methods; first, the endeavor to form conceptions of the objects studied by the impressions conveyed by the senses; second, speculation. Though a tendency to speculation was inherent in the nature of man, as knowledge became deeper speculation was more confined. Disease as an important condition affecting man had always held an advanced place in philosophy. But the true ends of philosophy could not be reached by speculation, but by the use of all the material for observation given by the natural sciences, for nature seemed to delight in refuting all conceptions of her processes not based on sense impressions. Speculation had been fostered by systems of religion founded upon what was regarded as supernatural revelation. Darwin, by substituting a rational hypothesis based on observation and experiment, exerted probably the greatest influence on general scientific progress in the last century. One of the greatest changes in the last century was the general acceptance of the ideas that medicine was a natural science in which knowledge must be sought by the methods of science and that disease was the result of injurious conditions acting upon the tissues. The importance of knowledge had never been so fully recognized as now. Dr. Councilman gave a brief review of the history of medicine, beginning with the work of Hippocrates. Three circumstances served to bring about a new era in the progress of knowledge, the discovery of printing, the discovery of America, with the stimulation it gave to thought, and the reformation, with the freedom it gave to thought. At no time in the world's history was there such rapid advance, such an array of great men in all departments of medicine as followed the revolution. In the advance of science new technical methods of investigation had played a most important rôle. When the microscope came into use the study of gross pathology had almost reached its limit. The brilliant results in surgery, changing it from the most despised to the leading branch of medicine, showed the advantages of methods founded on knowledge. The greater knowledge of infectious disease which came with their experimental study served to place therapeutics on a proper basis. The first effect of increased knowledge of disease was to produce a feeling of powerlessness in the face of it, followed by a nihilism in therapeutics much to be deplored. Another change was the greater specialization in investigation as well as in the exercise of the medical art. Specialization had its advantages and disadvantages. Investigations were more easily carried out by familiarity with technical methods, but in specialization there was a loss of the more general aspects of questions. Larger questions were broken up into smaller, and at times the knowledge gained by specialized investigation was not of a character to be utilized in the treatment of disease. An error had been perpetrated in not giving those interested in the clinical aspect of disease the same opportunity for research as that given in anatomy, physiology, and pathology. A most striking recent discovery in medicine was that the blood serum contained many complex substances, some playing an important rôle in the animal economy. Whether chemical variation might not arise, be inherited, and play an important rôle in disease susceptibility was a question to be answered by comparative anatomy. Comparative medicine was closely associated with experimental medicine. The most brilliant results in experimental medicine had come from the study of infectious diseases. In certain cases experiments must be carried out on human beings, even when the experiments might have a fatal termination. Such experiments would only be resorted to when they formed the only method of obtaining knowledge of the highest importance, and the subjects of the experiments must be adults who submitted with full knowledge of the possible consequences. All honor should be given to the men who devised and the brave man who submitted to an experiment the knowledge obtained from which placed yellow fever in the list of preventable ills. There had been too wide a separation between the public and the medical profession. The public derived its medical information chiefly through sensational articles in the newspapers. Without correct information of the problems which faced the medical profession the sympathy and cooperation of the public could not be secured. Medical education had been revolutionized in the last twenty-five years, the most marked change being in the substitution of object study for didactic lecture, the didactic lecture now being used only to show the interrelation of knowledge coming from object teaching. The successful practice of medicine depended more than ever upon the use of methods giving accurate knowledge of the condition of the sick individual, and training in the exercise of those methods was the most important part of medical education. So important were the clinical methods that it would probably be of advantage to give more of the time of the student to clinical work at the expense of the preliminary laboratory work in anatomy, physiology, and pathology.

(To be continued.)

Miscellany.

A Privileged Patient.—Dr. Wyman, Surgeon-General of the Public Health and Marine Hospital Service, tells an amusing story, according to *Harper's Weekly,* for September 17, 1904, in which there figures, as the patient, Lord Charles Beresford, of the British navy, and, as the physician in attendance, Sir Frederick Treves, of the royal household.

Sir Frederick listened attentively to the recital of Lord Charles's symptoms. Every now and then, as some particular point seemed to strike him, the physician would murmur "excellent" or "splendid," much to the discomfiture of Lord Beresford, who was at a loss to understand such enthusiasm.

Finally, after some minutes' reflection, the royal physician astonished his patient by patting him on the shoulder and exclaiming:

"You'll pull through very nicely, my dear fellow; but, really, you must allow me to congratulate you. You have the rarest disease of the century. You have, you lucky dog, a disease that heretofore was thought to be extinct!"

A Case of Brain Tumor With Autopsy.—At a recent meeting of the New York Neurological Society Dr. William M. Leszynsky reported the case of a girl aged nineteen years, a stenographer and typewriter by occupation, who was admitted to the Eye and Ear Hospital on January 12, 1903, and was seen in consultation with Dr. H. Jarecky. She was totally blind as a result of intense papillitis. The eyeballs were slightly prominent and rigid. She had never indulged in alcoholics, but had used tea excessively. Nine months ago she had begun to suffer from unusually severe occipital headaches, generally at night while asleep. The more severe attacks were accompanied by vomiting. There had also been severe attacks of vertigo. Two months previously she suddenly became blind in the right eye, and one month later the left eye became similarly affected. She remained in the hospital about two months, during which time she complained of frequent and severe headache in the right temporal and parietal regions, associated with left tonic facial spasm. Involuntary urination occurred from time to time. There was a slight paresis of the left facial distribution. The left knee jerk was more pronounced than the right, but ankle clonus was absent. The urine was negative. The pulse was about 78. She received a thorough course of potassium iodide and mercurial inunction without improvement. The author's diagnosis was cerebral tumor involving the right hemisphere. She was admitted to his service at Lebanon Hospital on March 7th, but would not consent to an exploratory operation. She could not recognize by touch any familiar object with the left hand. The convulsive attacks gradually increased in frequency, there being later clonic movements of the face, and nystagmus with retraction of the head. On May 18th there were several attacks of sudden vertigo associated with tonic and clonic spasm of the left side of the face and left arm and leg. Toward the end of May, in addition to a pronounced facial paralysis, the orbicularis palpebrarum became decidedly paretic a few weeks later. The Babinski reflex was exquisitely demonstrable on both sides. During her stay in the hospital the pulse varied between 98 and 100, the respirations were 24, and the temperature 98° to 99° F. On May 30th she was admitted to the Presbyterian Hospital, to the service of Dr. McCosh, for operation. On June 6th, while conversing with Dr. Leszynsky, she suddenly became unconscious and the limbs were rigidly extended. Both eyes were closed, the face was pale, and pulse regular. There were no clonic movements. After about three minutes there was complete muscular relaxation, and rapid and almost abrupt return to consciousness. On June 9th Dr. Starr concurred in the diagnosis and thought there might be multiple lesions. Two radiographs were made, one anteroposteriorly and the other laterally. The operation was done on June 11, 1903, under chloroform, a flap being raised over the fissure of Rolando. The intracranial pressure was found to be markedly increased. At the depth of an inch and a half, in the direction of the right lateral ventricle, cerebrospinal fluid was reached. No tumor formation was discovered. A silkworm gut drain was inserted, and after operation between one and two pints of fluid drained away each day. Following the operation there was, for a short time, a complete left hemiplegia with rigidity. She died on July 8th from lobar pneumonia, four weeks after the operation and seventeen months after the first symptoms of brain disease. The autopsy was made fifteen hours after death, by Dr. George A. Tuttle. The examination was limited to the brain and its contents. The brain tissue in the region of the operation was quite soft. A soft red mass was found in the right ventricle, about the size of an egg, which apparently sprang from the inner wall of the ventricle. The tumor was thought to be a glioma. There were two organized blood clots in the ventricle. Macroscopically, all the other portions of the brain and meninges appeared to be normal.

The Climate and Health Conditions of Panama.—In a report to the Department of Commerce and Labor, United States Consul General Gudger has the following to say regarding the climate and health conditions on the isthmus:

So much has been said and written on the subject of health conditions on the isthmus that little remains that will be of interest, unless it be the correction of some erroneous impressions.

The most ardent friend of Panama does not regard it as a paradise or even as a health resort. That it is not such a death pool as most people at a distance think is equally certain. For hundreds of years no regard has been paid to sanitation. That under such circumstances there should be a large death rate is not more than should be expected. Sometimes one is inclined to wonder how it is that any one can live considering the surroundings.

The death rate in Panama during the six months ending July 1, 1904, was 54 in 1,000, calculating the population of the city at 20,000 people. The natives claim that there are here at least 25,000 inhabitants, while the census which is now being taken would seem to indicate that it is even less than 20,000.

During the construction of the Panama railroad and when work was being pushed by the French canal company, the laborers were badly housed, poorly fed, and exposed to all kinds of inclement weather. No wonder the record was made that for each cross tie in the Panama railroad the life of one of those who aided in its construction was lost.

With good, comfortable quarters, pure water, constant warfare on the mosquitoes, abundance of healthy food, and enforcement of strict sanitary measures, the death rate will undoubtedly be greatly reduced. All these things will be provided for by the canal commission, which seems to have begun work in earnest, and those who have watched the progress so far have little doubt that within the shortest period possible all that can be done on the canal will be accomplished.

The climate differs in various parts of the republic. In Panama and Colon the temperature is approximately the same, and ranges from about 65 degrees to 98 degrees Fahrenheit, the average being perhaps 80 degrees. The nights are, as a rule, cool and pleasant. The rainfall in Colon is from 82 to 155 inches, the average being about 125 inches. In Panama the rainfall is from 47 to 90 inches, the average being 70 inches. The hilly section is cooler and has less rainfall. The seasons are divided into the wet and the dry. The dry season, which is called the summer, begins in December and lasts through April, the remainder of the year being the rainy season, or winter.

The commission is not only doing a great deal in the way of sanitation, but is likewise preparing for sickness. Two large hospitals will be conducted —one in Panama and the other in Colon—and stretching across the zone will be some eighteen others, which will be feeders to the principal ones. Panama, Colon and the entire zone will have fresh, pure water, the supply of which will come from streams in the adjacent hills.

Immunity and Blood Affinities.—Our knowledge of the properties of the blood in relation to immunity, according to the *British Medical Journal*, for April 16, 1904, has increased so rapidly that it is difficult to realize how recent is its origin. In 1888 Nuttall published an important series of experiments which demonstrated the bactericidal action of normal blood serum. This work excited much attention and criticism, and proved a powerful stimulus to further research on both the natural and the acquired powers of the animal body to resist infective organisms. The more recent discoveries and theories on which the modern science of immunity is based are largely attributable to the work and inspiration of Ehrlich and Metchnikoff. At the present day the number of workers in the field is enormous, and the subject has become so extensive and so complicated by the accumulation of individual and more or less isolated data that the main issues still requiring elucidation tend to become obscured. This disadvantage is to some extent a necessary concomitant of the early stages in the progress of a new scientific field; new data must be amassed from a heterogeneity of sources; conflicting ideas, each advocated by its special pleaders, crop up side by side and cannot be finally adjudicated upon except by the slow and cumbrous procedure of elimination, in obedience to the law of the survival of the fittest: and then, as in all scientific work, the personal equation plays an important part. Men engaged upon scientific research must necessarily become absorbed in details, and it is the gift of only the very few to look beyond their immediate objective, and forecast the destinies of their science as a whole. The great majority aim at nothing further than placing upon record new observations, with a veneration for experimental facts which is often accompanied by a proportionate irreverence towards such intangible ideals as ultimate principles. But the discovery of new facts is only half the work: the more difficult task remains of incorporating these as an integral part of the body of knowledge which has already accumulated.

What is imperatively needed is the grasp of a master mind, to bring into order the chaotic mass of experimental work on immunizing serums, and indicate the lines on which substantial progress is actually being made. In his new book on precipitins[1] Dr. Nuttall has attempted a portion of this task, and has also contributed highly important additions to the experimental data hitherto available. Dr. Nuttall is exceptionally well fitted for this work. In addition to his high reputation as an authority on the properties of blood serum, he possesses an unrivalled grasp of the literature of his subject and is capable of handling it in the true spirit of cosmopolitan impartiality. His work done in Germany entitles him to rank amongst the German bacteriologists, but has left him without a trace of bias against the French school; and from his intimate acquaintance with American work he can form a better opinion as to its value than any other authority in this country. The present volume fully justifies his right to be regarded as the proper man to deal with this subject, and constitutes a work which must necessarily rank as the standard authority on the precipitins of blood serum.

As to the nature of precipitin test, it will be remembered that an experiment is performed as follows: An animal, generally a rabbit, is repeatedly inoculated with small doses of a particular serum. The animal is subsequently killed and its serum is collected. This serum, assuming the inoculations to be successful, is now called an antiserum, and possesses the specific property of causing a precipitate when added to a sample of the same serum as that with which the rabbit was inoculated. But when the antiserum is added to serum from another type of animal no precipitate, or at most a much smaller amount of precipitate, is produced.

This method has been employed by Dr. Nuttall for the purpose of determining the degree of interrelationship amongst various species of the animal kingdom. He has obtained 900 specimens of blood from different animals and collected from a large variety of sources and tested them with precipitating antiserums.

As an example of his results we may take the case of man. Darwin claimed that man was more closely related to the Old World than to the New World apes. In confirmation of this view Dr. Nuttall finds that "the reactions obtained with the bloods of *Simiidæ* closely resembled those obtained with human blood; the bloods of *Cercopithecidæ* came next, followed by those of the *Cebidæ* and *Hapalidæ,* which gave but slight reactions with human antiserum, whilst the blood of *Lemuroidæ* gave no indication of blood relationship." The other valuable results obtained with the serum of *Mammalia, Aves, Reptilia, Amphibia,* and *Crustacea* are far too numerous to admit of a summary.

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[1] *Blood Immunity and Blood Relationship. Precipitin Tests.* By G. H. F. Nuttall, M. A., M. D., Ph. D. Cambridge: University Press. 1904. (Royal 8vo, pp. 444.)

In a later chapter contributed by Dr. G. S. Graham-Smith blood relationship is investigated amongst the lower *Vertebrata* and *Arthropoda* by means of precipitating antiserum. Here Gaskell's theory as to the origin of vertebrates comes under consideration. It is well known that, in spite of his persistence, that eminent physiologist has failed to gain for his favorite theory the adherence of zoologists, and it has often been hoped that he might at length be left free to return to his physiological studies by the appearance of some authority who could accept his zoological hypothesis as valid. It is therefore with genuine regret that we find Dr. Graham-Smith concluding from his precipitin tests that "no evidence can as yet be produced in support of this hypothesis."

The precipitin test for blood has already been shown to be of practical value in medicolegal diagnosis. Dr. Nuttall has paid special attention to the application of antiserum for this purpose, and embodies in the present volume a most interesting chapter which contains the results of researches conducted, at his suggestion, by Dr. Graham-Smith and Dr. Sanger, who obtained specimens from a number of articles in the possession of the Criminal Investigation Department of Scotland Yard (the police headquarters of London), and found that blood which had been dried many years could still be tested by means of precipitins.

Apart from its zoological and medicolegal interests Dr. Nuttall's book will prove of the highest value to students of immunity as a summary and criticism of present knowledge concerning precipitins and as an indication of the lines on which future researches ought to be conducted. If only Dr. Nuttall will take up the allied problems of his subject in the same masterly spirit in which he has dealt with precipitins he will confer a benefit upon medical science which it would be difficult to overestimate.

Literary Expression.—All of us, whom either inclination or necessity induces to the perusal of many scientific papers, must have noticed the lamentable lack of style which in general marks their composition. Indeed, as regards the expression of English scientific thought at the present day, one may say that style is absent, and that slovenliness of diction prevails. The English *Medical Press,* for June 1, 1904, thinks that it is, perhaps, too much to expect that men of science will cultivate literary expression with the care that is considered necessary among other writers, but, nevertheless, one can hardly overrate the increase of pleasure given when a work of scientific value is expressed in correct, vigorous, and clear language. With the single exception of Sir Michael Foster, it does not know in England any medical writer, since the death of Sir James Paget, whose works, apart from their intrinsic value, it is a pleasure to every man of taste to read. In pure science, no one has succeeded to the place of Huxley and Tyndall, regarded merely as literary men. In America, it is true, there is still a cult of style among the better class of medical writers, of whom Dr. Osler, Dr. Weir Mitchell, and the late Dr. Oliver Wendell Holmes are good examples. French writers are, as a rule, peculiarly happy in their manner of expressing themselves, but whether this is due to the felicity of the French language, or the *esprit* and taste of the writers themselves, it is difficult to decide. On the other hand, the reading of scientific work published in German is one of the most painful experiences a zealous student has to undergo. It should not be forgotten, however, that some of the greatest masters of English prose have been medical men. In any history of style the names of Sir Thomas Browne, Oliver Goldsmith, and Dr. John Brown will always take a high place.

Treatment of Appendicitis With Pelvic Prolongation.—At the last meeting of the Surgical Society in Paris, M. Chaput reported seven observations of appendicitis with pelvic prolongation, in which he four times made a rectal incision, and three times practised posterior or anterior colpotomy. The seven cases were successful. In studying the different ways of access to these abscesses, Dr. Chaput shows that the performance of the operation by way of the sacrum, as well as by the perinæum, necessitates a large wound; the asepsis is complicated and the access difficult. The abdominal route may cause eventration and stercoraceous fistula; it drains off badly, and is unadvisable on account of median hypogastric agglomerations, and lastly it gives a considerable mortality. The operation by the rectum, preferred in France by Jaboulay and his pupils, and also by Potel and Bérard, presents the following advantages: It does not necessitate a general anæsthesia; the operation is simple and rapid; the wound insignificant; the drainage sloping; and there is no eventration. Recovery takes place or is complete in eight or ten days and the mortality of 43 cases reported by Jaboulay, Bother, and Chaput is absolutely nil.

Radiotherapy in Therapeutics.—The Röntgen rays and radium are daily finding a wider field for their employment. Mr. Hallopeau, the eminent dermatologist, has lately communicated an interesting study by Dr. Besserie, on two cases of epithelioma of the tongue, cured by radiotherapy. Three or four applications of the treatment were sufficient to bring about the complete disappearance of these superficial cancers. Should there be recurrences, the method would simply have to be applied again. The medication acts, to all appearance, by phagocytosis. Other maladies are susceptible of this treatment; at the hospital of the Salpêtrière several cases have been remarked of facial neuralgia cured by applications of radium.

Official News.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the week ending September 23, 1904:

Place.	Date.	Cases.	Deaths.
Smallpox—United States.			
Illinois—Chicago	Sept. 10-17	14	2
Louisiana—New Orleans	Sept. 10-17	1 imported	
Massachusetts—Lawrence	Sept. 10-17	1	
Massachusetts—North Adams	Sept. 10-17	9	
Michigan—at 41 places	Sept. 3-10	Present.	
Minnesota—Morrison County	Sept. 6-13	1	
Missouri—St. Louis	Sept. 10-17	11	
New York—New York	Sept. 10-17	2	
Pennsylvania—Philadelphia	Sept. 10-17	1	1
Rhode Island—Providence	Sept. 10-17	1	
Tennessee—Memphis	Sept. 10-17	1	
Tennessee—Nashville	Sept. 10-17	2	
Wisconsin—Milwaukee	Aug. 27-Sept. 17	6	
Smallpox—Foreign.			
Belgium—Antwerp	Aug. 27-Sept. 3	1	
Borneo—Brunai	Aug. 8	Epidemic.	
Brazil—Pernambuco	Aug. 17-31		28
China—Hongkong	July 30-Aug. 6	2	
France—Paris	Aug. 27-Sept. 3	29	1
Great Britain—Bradford	July 31-Aug. 27	9	
Great Britain—Bristol	Aug. 27-Sept. 3	1	
Great Britain—Glasgow	Sept. 2-9	2	1
Great Britain—Leeds	Sept. 3-10	1	
Great Britain—London	Aug. 27-Sept. 3	2	
Great Britain—Manchester	Aug. 27-Sept. 3	2	
Gt. Britain—Newcastle-on-Tyne	Aug. 27-Sept. 3	3	
Great Britain—West Hartlepool	Aug. 27-Sept. 3	2	
India—Bombay	Aug. 16-23		1
Italy—Palermo	Aug. 27-Sept. 3	9	2
Russia—Moscow	Aug. 16-23	7	2
Russia—Odessa	Aug. 13-Sept. 3	7	
Russia—St. Petersburg	Aug. 20-27	2	4
Turkey—Beirut	Aug. 20-Sept. 3	Present.	
Turkey—Constantinople	Aug. 28-Sept. 4		6
Yellow Fever.			
Mexico—Coatzacoalcos	Sept. 3-10	7	2
Mexico—Merida	Sept. 4-10	1	
Mexico—Tehuantepec	Sept. 4-10		1
Mexico—Vera Cruz	Aug. 27-Sept. 10	16	
Panama—Panama	Sept. 5-12	1	1
Cholera.			
Borneo—Kudat	Aug. 19	Present.	
India—Bombay	Aug. 16-23		12
Turkey—Bagdad and vicinity	July 23-30	522	566
Turkey—Bagdad and vicinity	July 30-Aug. 6	322	457
Plague.			
China—Hongkong	July 31-Aug. 6	13	12
Egypt	Aug. 13-20	10	7
India—Bombay	Aug. 16-23		50
India—Karachi	Aug. 14-21	4	2
Japan—Formosa	July 23-Aug. 6	21	27
Turkey—Smyrna	Sept. 8	Present.	

Public Health and Marine Hospital Service:

List of Changes of Stations and Duties of Commissioned and Non-Commissioned Officers of the Public Health and Marine Hospital Service for the seven days ending September 21, 1904:

Carmichael, D. A., Surgeon. Granted leave of absence for one month from October 18th.

Foster, M. H., Passed Assistant Surgeon. Granted extension of leave of absence, on account of sickness, for thirty days from September 18th.

Gassaway, J. M., Surgeon. Detailed to represent the Service at the meeting of the Association of Military Surgeons at St. Louis, Mo., October 10th to 15th.

Hamilton, H. J., Acting Assistant Surgeon. Granted leave of absence for thirty days from October 1st.

Keen, W. H., Pharmacist. Bureau order of August 26, 1904, directing Pharmacist Keen to proceed to Boston, Mass., revoked, and directed to proceed to Chicago, Ill., and report to the Medical Officer in Command for duty and assignment to quarters.

LaGrange, J. V., Pharmacist. Department letter of August 30, 1904, granting Pharmacist LaGrange leave of absence for twenty-three days from September 15th, revoked.

McIntosh, W. P., Surgeon. To proceed to Stonington, Maine, for special temporary duty. September 15, 1904.

McLaughlin, A. J., Assistant Surgeon. Granted leave of absence for twenty-four days from October 3rd.

Nydegger, J. A., Passed Assistant Surgeon. Relieved from duty at the Immigration Depot, Ellis Island, N. Y., effective October 1, 1904, and directed to proceed to New York, N. Y. (Stapleton), and report to the Medical Officer in Command for duty and assignment to quarters, relieving Passed Assistant Surgeon A. C. Smith.

Richardson, S. W., Pharmacist. Relieved from special temporary duty in connection with the Louisiana Purchase Exposition at St. Louis, Mo., and from duty in the Hygienic Laboratory, Washington, D. C.; and directed to proceed to Boston, Mass., and report to the Medical Officer in Command for duty and assignment to quarters. September 15, 1904.

Smith, A. C., Passed Assistant Surgeon. Upon being relieved from duty at New York (Stapleton), by Passed Assistant Surgeon J. A. Nydegger, to proceed to New Orleans, La., and assume command of the service, relieving Surgeon C. P. Wertenbaker. September 15, 1904.

Stoner, J. B., Surgeon. To proceed to Cape Charles Quarantine Station and assume temporary charge during the absence of Assistant Surgeon J. S. Boggess. September 15, 1904. Granted leave of absence for eight days from September 26th.

Wertenbaker, C. P., Surgeon. Upon being relieved from duty at New Orleans, La., by Passed Assistant Surgeon A. C. Smith, to proceed to the Immigration Depot, Ellis Island, N. Y., and report to Surgeon G. W. Stoner for duty. September 15, 1904.

White, J. H., Surgeon. Granted leave of absence for six days from September 19th.

Woodward, R. M., Surgeon. Department letter of May 13, 1904, granting Surgeon Woodward leave of absence for three months, amended to read two months and twenty-six days from June 14th.

Reinstatement.

C. H. Bierman, of New York, reinstated as pharmacist of the third class. September 17, 1904.

Board Convened.

Board convened to meet at Stapleton, N. Y., September 19, 1904, for the physical examination of an officer of the Revenue Cutter Service. Detail for the board—Passed Assistant Surgeon A. C. Smith, chairman. Passed Assistant Surgeon C. H. Lavinder, recorder.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending September 20, 1904:

Braisted, W. C., Surgeon. Detached from the *Pensacola* and ordered to the *Ohio.*

Curl, H. C., Passed Assistant Surgeon. Detached from the *Boston* and ordered to duty in connection with the Isthmian Canal Commission.

Ferebee, N. McP., Medical Director. Sick leave extended three months from September 20, 1904.

Kennedy, R. M., Surgeon. Detached from the *Dixie* and ordered to the *Missouri.*

Lovering, P. A., Surgeon. Ordered to the Naval Museum of Hygiene and Medical School, Washington, D. C.

McCullough, F. E., Passed Assistant Surgeon. Ordered to the *Pensacola* and to duty at the Naval Training Station, San Francisco, Cal..

McDonnell, W. N., Acting Assistant Surgeon. Detached from the Naval Recruiting Station, Baltimore, Md., and ordered home to await orders.

Rodman, S. S., Passed Assistant Surgeon. Detached from the *Pensacola* and ordered to the *Boston.*

Wilson, H. D., Passed Assistant Surgeon. Ordered to additional duty on the *Southery.*

The following named assistant surgeons are detached from the stations indicated and ordered to the Naval

Museum of Hygiene and Medical School, Washington, D. C.:

R. G. Heiner, *Southery.*
R. B. Chapman, Navy Yard, Washington, D. C.
R. E. Stoops, Naval Hospital, Norfolk, Va.
F. E. Porter, Naval Hospital, Norfolk, Va.
H. F. Hull, Naval Hospital, Newport, R. I.
W. D. Owens, Naval Hospital, Newport, R. I.
J. L. Belknap, Naval Hosital, New York.
D. C. Cather, Naval Hospital, New York.
N. T. McLean, Naval Hospital, New York.
G. L. Wickes, Naval Hospital, Philadelphia, Pa.
W. J. Zalesky, Naval Hospital, Philadelphia, Pa.
O. J. Mink, Naval Hospital, Philadelphia, Pa.
H. A. May, U. S. R. S. *Franklin.*
C. T. Grayson, Naval Hospital, Washington, D. C.
W. A. Angwin, Naval Hospital, Mare Island, Cal.
W. G. Farwell, Recruiting Duty, Portland, and Bangor, Me.

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending September 24, 1904:

Appel, D. M., Lieutenant-Colonel and Deputy Surgeon-General. Leave of absence extended to include October 30, 1904.

Buck, Carroll D., First Lieutenant and Assistant Surgeon. In addition to his present duties will perform temporarily the duties of medical director, Philippine Government Board, Louisiana Purchase Exposition, St. Louis, Mo.

Church, James R., Captain and Assistant Surgeon. Relieved from duty at Fort Brown, Texas, on expiration of sick leave, and ordered to Fort Robinson, Neb.

Devereux, J. R., First Lieutenant and Assistant Surgeon. Left Fort Meade, S. D., with Sixth Cavalry, on road march.

Greenleaf, Henry S., First Lieutenant and Assistant Surgeon. Granted thirty days' leave of absence, with permission to apply for thirty days' extension.

Kean, Jefferson R., Major and Surgeon. Detailed to represent the Medical Department of the United States Army at the thirteenth annual meeting of the Association of Military Surgeons of the United States, to be held at St. Louis, Mo., October 10 to 15, 1904.

Lyster, W. J. L., First Lieutenant and Assistant Surgeon. Leave of absence extended thirty days.

McAndrew, P. H., First Lieutenant and Assistant Surgeon. Left Jefferson Barracks, Mo., with recruits to San Francisco, Cal.

Metcalfe, R. F., First Lieutenant and Assistant Surgeon. Arrived at San Francisco, Cal., on the *Sherman,* from Manila, P. I.

Owen, William O., Major and Surgeon. Relieved from duty in the Philippines, and ordered to proceed from San Francisco, Cal., to Fort Logan, Colo., for duty.

Rafferty, Ogden, Major and Surgeon. Detailed to represent the Medical Department of the United States Army at the thirteenth annual meeting of the Association of Military Surgeons of the United States to be held in St. Louis, Mo., October 10 to 15, 1904.

Smart, Charles, Colonel and Assistant Surgeon-General. Ordered to proceed from San Francisco, Cal., to Army and Navy General Hospital, Hot Springs, Ark., for treatment.

Smart, Robert, First Lieutenant and Assistant Surgeon. Arrived in San Francisco, Cal., on the *Sherman,* from Manila, P. I.

Stark, Alexander N., Captain and Assistant Surgeon. Granted sick leave for three months from September 17, 1904.

Steer, Samuel L., First Lieutenant and Assistant Surgeon. Granted thirty days' leave of absence.

Stephenson, William, Major and Surgeon. Granted thirty days' leave of absence, with permission to apply for an extension of twenty days.

Williamson, L. P., First Lieutenant and Assistant Surgeon. Relieved from further duty as medical director, Philippine Government Board, Louisiana Purchase Exposition, St. Louis, Mo., and in addition to his duties as attending surgeon, headquarters, Northern Division, he will perform temporarily the duties of examiner of recruits, St. Louis, Mo.

Births, Marriages, and Deaths.

Married.

Ambler—Lemans.—In Naples, N. Y., on Monday, September 19th, Dr. John Edgar Ambler, of New York city, and Miss Lemans.

Chambers—Fitzgerald.—In Watkins, N. Y., on Wednesday, September 14th, Dr. Merritt G. Chambers and Miss Nellie C. Fitzgerald.

Hassler—Spaeth.—In Belmar, New Jersey, on Wednesday, Setember 21st, Dr. J. Wyllis Hassler and Mrs. Eva Osborn Spaeth.

Hodgson—Wilson.—In Cumberland, Maryland, on Thursday, September 15th, Dr. Henry Marvin Hodgson and Miss Lutalie Shepherd Wilson.

McKelway—Bennett.—In Binghamton, N. Y., on Saturday, September 17th, Dr. John Irvine McKelway and Miss Mabel Sanger Bennett.

Nelson—Warden.—In Saranac, N. Y., on Thursday, September 8th, Dr. William Smith Nelson and Mrs. Isabel Tuttle Warden.

Reddy—Rosenblatt.—In Middleway, West Virginia, on Thursday, September 1st, Dr. James H. Reddy and Miss Golda Rosenblatt.

Rekerson—Breck.—In Mount Vernon, N. Y., on Tuesday, September 20th, Dr. Albert B. Rekerson and Miss Mary E. Breck.

Robertson—Groppel.—In Baltimore, Maryland, on Wednesday, September 14th, Dr. James Clagett Robertson and Miss Marian Estelle Groppel.

Rosenblueth—Baum.—In Tuxedo, N. Y., on Thursday, September 22nd, Dr. Jacoby Rosenblueth and Miss Edna Baum.

Spangenberg—Adams.—In Chicago, Illinois, on Thursday, September 15th, Dr. William C. Spangenberg and Miss Clara Adams.

Wilzin—Bishop.—In New York, on Thursday, September 22nd, Dr. Isaac M. Wilzin and Miss Ina E. Bishop.

Young—Doyle.—In Baltimore, Maryland, on Thursday, September 15th, Dr. Charles Whittier Young and Miss Olivia Doyle.

Died.

Barrus.—In Navarino, N. Y., on Thursday, September 15th, Dr. George B. Barrus, in the seventy-sixth year of his age.

Conant.—In New York, on Friday, September 23rd, Dr. George S. Conant, in the fifty-second year of his age.

Hirth.—In Milwaukee, Wisconsin, on Thursday, September 15th, Dr. George Jacob Hirth, in the fortieth year of his age.

Hyndman.—In Cincinnati, Ohio, on Sunday, September 18th, Dr. James G. Hyndman, in the fifty-second year of his age.

Mitchell.—In Hereford, Maryland, on Thursday, September 15th, Dr. Frederick Dorsey Mitchell, in the eighty-first year of his age.

Ridgely.—In Dover, Delaware, on Saturday, September 17th, Dr. Henry Ridgely, in the ninety-eighth year of his age.

Schilling.—In Hattiesburg, Mississippi, on Monday, September 12th, Dr. Felix E. Schilling, in the thirty-second year of his age.

Wheeler.—In Carbondale, Pennsylvania, on Sunday, September 18th, Dr. H. C. Wheeler.

New York Medical Journal
AND
Philadelphia Medical Journal.

A Weekly Review of Medicine

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Original Communications.

DUPUYTREN'S FINGER CONTRACTION.

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Perhaps no so called minor surgical affection has been attended with more obscurity as to ætiology than Dupuytren's finger contraction and the question has as yet not been so settled as to contribute in any great degree to the benefit of the patient. The clinical picture of this obstinate condition is well known and fortunately easily recognized, but yet again on the subject of the treatment there is lack of unanimity of opinion, although there has lately been developed a method which promises to settle fairly well this vexed question of treatment.

In the production of the deformity all the structures of the flexor surface of the hand, muscles, tendons and skin have been considered possible factors, but Dupuytren, in 1832, after long observation and careful study of the tissues, was the first to show definitely that the seat of the disease was in the palmar aponeurosis, and this has been so repeatedly and so thoroughly established by numerous subsequent observers that it is no longer a question of discussion.

It may be instructive to inquire briefly into the anatomy of the palmar fascia. It is divided into three portions, a central thick one, by contraction of which the deformity under discussion is produced, and two lateral ones, which cover the thenar and hypothenar muscles respectively. These two latter portions are very thin and are continuations downward into the palm of the forearm fascia, and are rarely involved in Dupuytren's contraction, which accounts for the almost universal escape of the thumb from the deformity. The central portion, lying between the thenar and hypothenar eminences, triangular in shape with apex above, for the most part is a continuation of the anterior annular ligament of the wrist, and to a less degree is derived from the expansion of the palmaris longus muscle. Its base corresponds to the heads of the four inner metacarpal bones, where it divides into four processes, which go to the four inner fingers. Each of these processes forms a bridge across the tendons, and they are separated from each other by three spaces through which the digital nerves and arteries emerge, these spaces being bridged over by transverse fibres, which connect the processes and form the superficial transverse ligaments, lying in the webs between the fingers. These processes, one for each finger, divide, respectively, at the bases of the first four inner fingers into three smaller processes the middle one of which is inserted into the skin of the palmar surface of the fingers, as far down as the pulp of the last phalanx, while the two lateral processes surround the tendon sheaths and are inserted into the dorsal surfaces of the first and second phalanges. From the anterior surface of the main portion of the fascia proceed numerous small fibrous prolongations to the skin, which explain the involvement of the skin in the disease. The spaces between these sæpta are filled up with pellets of the subcutaneous fat. Its posterior surface is smooth and lies in contact with the synovial membrane of the great palmar bursa above, and the sheaths of the flexor tendons below. The function of the palmar fascia consists in affording protection to the underlying tendons, nerves, and vessels; in limiting to a certain extent, not only flexion of the fingers, but more particularly over extension of the same; and finally in preventing by the action of the fibrous bands which go to the corium, an excessive flattening of the hollow of the hand in extension, thus regulating the tension of the entire palm.

The pathological basis of the palmar fascial contraction has been shown by the latest researches of Kocher and Langhans, von Tarnowski and Schmidt, supplementing the earlier results of Goyrand, Froriep, Sevestre, and Adams, to be a chronic hyperplastic inflammation, with subsequent scar tissue contraction of the palmar fascia and of the adjacent connective and fatty tissues, which inflammation does not, however, involve these tissues *in toto* at first, but only certain portions of them; hence the small tumors felt in the palm, the precursors of the disease.

This inflammatory condition manifests itself in an increased growth of cells, particularly in the sheaths of the arteries and in the subendothelial layer of the capillaries. This leads within the aponeurosis to a growth and thickening of the loose connective tissue, conveying the vessels, which lie between the individual fascial bundles. At the same time there is also a new growth of connective tissue strings toward the skin which cause a binding of the fascia to the cutis, and which, by their contraction, produce the small, funnellike invaginations of the skin, which, together with the pea size, cartilaginous-like knots, lying deeply imbedded, represent the first symptoms of the affection. The skin itself does not take part in the inflammatory process. Gradually firm bands appear, radiating from these knots in the middle of the palm to the fingers, corresponding to the course of the fascial bundles. These bands contract and draw the fingers toward the origin of the apex of the aponeurosis. In other directions also the changes progress. Following the sæpta into the depths of the hand, new connective bands are formed, which bind the fascia to the tendon sheaths beneath. While in one part of the aponeurosis new tumors appear, in other parts older ones begin to contract and alter the picture. The origins and insertions of the fascia are gradually brought nearer and nearer to each other, producing a flexion of the fingers, taking place first in the metacarpophalangeal joints, then in the first interphalangeal joints, but never in the second interphalangeal joints, which correspond exactly to the insertion points of the fascia. The skin of the palm is thrown up into transverse folds. The affected fingers are not all equally flexed, as a rule. In the great majority of the cases the changes take place first in that part of the fascia which lies opposite the base of the ring finger, and it is this finger which is ususally not only first flexed, but also the one in which it reaches the highest grade. Baum gives as the reason for this the support which the thenar and hypothenar eminences afford for the other fingers, while the ring finger lies freer and possesses the greatest movement excursion. Besides, the fascia at this point is least protected from subsequent traumata. The thumb is only rarely involved. According to Madelung, the flexion increases until the point is reached where the flexed finger will protect the fascia from further traumatic insults; for, although trauma does not seem acknowledged to be an important ætiological factor, still it appears likely that the changes when once they have begun may be increased by subsequent traumata. Other structures in the hand become changed when the process has existed for some time: the tendons become shortened, the articular surfaces are changed in form, on account of the altered pressure, atrophying where the greatest pressure comes, while, on the dorsal portion under the joint surface of the metacarpus, there sometimes arises an exostosis. Finally, the joints may become ankylosed.

The larger part of the statistics and materials for this article are taken from two articles, one reporting 16 cases in the *Archiv für klin. Chir.*, 1902, vol. lxvii, p. 761, from von Bergmann's clinic, the other reporting 7 cases in the *Beiträge zur klin. Chir.*, 1902, vol. xxxvi, p. 123, from Wolfler's clinic; in addition I wish to report one case of my own. In these 24 cases, 12 involved both hands, 8 the right hand, and 4 the left. In 5 cases of double contraction of advanced grade, two cases had both thumbs involved and 3 cases one thumb. In the majority of the cases the affection began in the right hand, and only secondarily invaded the left one.

Women seem very rarely to be affected. Noble Smith gives the percentage between men and women as 10 to 1. Children are never visited by the affection. The disease occurs between the thirtieth and sixtieth years.

It is worthy of remark that the contraction regularly ceases to advance as soon as it reaches such a degree that the use of the finger is impossible, so that the burying of the finger tip in the hollow of the palm seldom occurs.

We come now, not only to the most discussed, but also to the most disputed point, that of the ætiology. In general we may say that it is entirely unknown. The views held may be summed up under two heads: 1. That it is due to traumata. Against this view speaks strongly the fact of the double sidedness of the affection. In addition it must be recognized how difficult it is to obtain a sufficiently satisfactory history of a causal trauma from our patients; the same difficulty confronts us in endeavoring to prove the traumatic origin of tumors in general. Neither can we find support for the traumatic origin in the occupations of those affected, for it is not limited to the hand workers; clerks, teachers, physicians, etc., are likewise affected, although not so frequently. The appearance of the small knots in the palm, in the beginning of the affection, point, however, to their being due to the rupture of the fibres in the aponeurotic strings. 2. Others seek the ætiology either in a local affection, or in general, constitutional diseases. It will suffice us simply to mention, for the sake of completeness, some of these views. Neutra has called attention to its association with disease of the central nervous system, particularly syringomyelia;

others have endeavored to attribute it to disease of the peripheral nervous system. The effect of heredity has been emphasized: in the 24 cases considered in this paper .only two had fathers so affected. Rheumatic disease, arteriosclerosis, diabetes, syphilis, arthritis deformans, the infectious diseases, have all been suggested as possible causes; however, constitutional treatment has proved of no benefit in these cases. To a gouty diathesis has been attributed a great causative factor. Certainly in a number of cases in the literature it has been an associated lesion. In none of the above cases was it present. Noble Smith attributes the disease to an overstraining of the palmaris longus muscle, Rinne to a long continued compression of the forearm. Madelung attributes it to the disappearance of the fatty, subcutaneous tissue, which exposes the deeper tissues to greater traumatic insults.

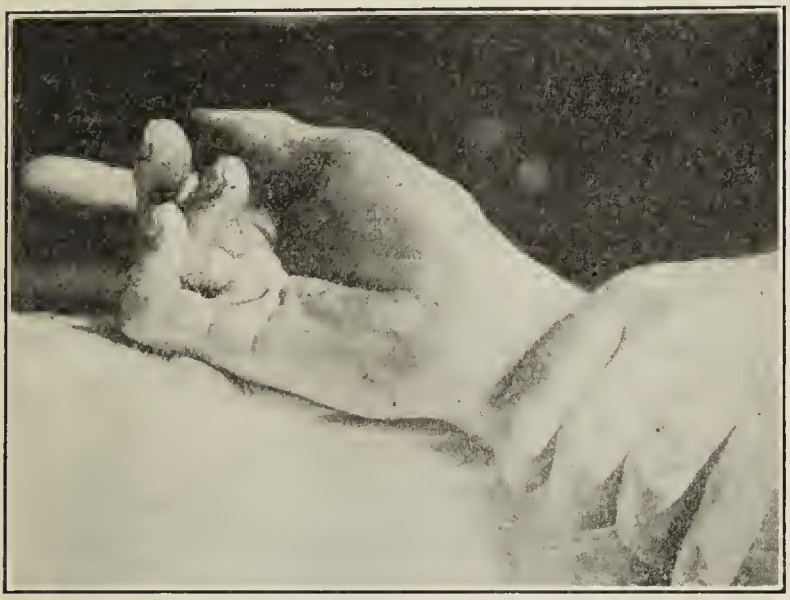

FIG. 1.—Right hand showing deformity. Fingers at extreme limit of extension.

In conclusion, we may say that the influence of trauma, be it one single one or a long continued series referable to the patient's occupation, cannot be dismissed offhand, for it may be conceded that it is possible for trauma to keep up the inflammation after this has started, since the patient endeavors to make the contracted fingers do the same work as previously, which produces small tears in the aponeurosis. These tears show themselves under the microscope as hæmorrhages. fresh and old. It would seem, then, that a general disposition to the disease must be present, and that, in a certain number of cases at least, local insults act not only as possible exciting causes, but also as continuing influences, e. g., direct irritation of the palm, as by leaning much on a round-headed cane, or from the constant use of some instrument, such as an awl, in a person constitutionally predisposed to the disease, i. e., with some causative diathesis.

The clinical picture of this obstinate condition is sufficiently well known. The affection begins without any appreciable antecedent injury or inflammation, as an indurated, subcutaneous nodule in the palm, about the situation of the most marked transverse crease, at the metacarpophalangeal joint, most usually of the ring finger, occasionally of the little finger, advancing later to the middle finger. The index finger is much less frequently involved, and most rarely of all the thumb. One or two years pass before the actual drawing in of the fingers begins. The process is usually painless. The induration spreads slowly up and down the fascial bands into the fingers, which, as it increases, are gradually drawn into the palm and fixed. The right hand is more usually first affected, later the left, or both hands may be simultaneously diseased. The flexion is limited to the first and second phalanges, the third remaining extended, and indeed sometimes assuming a position of hyperextension, owing to the injudicious application of a splint. Passive flexion takes place without hindrance, but extension is impossible and painful, and causes the subcutaneous bands to spring out strongly into prominence. They cross the concavity of the palm longitudinally, as a bowstring is stretched across the concavity of the bow. The skin is thrown up into rough transverse folds and creases and cannot be moved over the underlying hard bands, with which it becomes gradually incorporated. To complete the picture, the burying of the finger into the palm may take from six to twelve years.

Either hand may be affected alone, or both hands may be involved together. In 184 cases collected by Keen, the right hand was involved alone in 58, the left hand alone in 23, both hands in 103. In 49 cases examined by Nichols, the right hand was affected in 12, the left hand in 15,

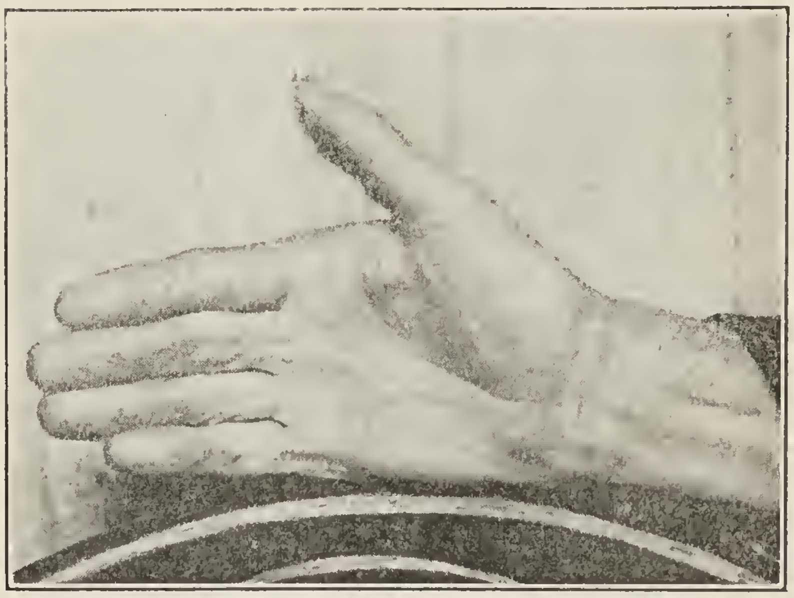

FIG. 2.—Right hand ten months after operation.

both hands in 22. The ring finger is much oftenest contracted and the little finger in a large proportion of the cases; the middle finger is frequently involved, but not so often as the ring and little fingers. In 263 cases (Keen, Nichols), 572 fingers in all were affected, as follows: 12 thumbs, 24 forefingers, 93 middle fingers, 249 ring fingers, 194 little fingers. One finger alone, or two or more fingers on the same hand, may be contracted together. When both hands are affected, the contraction almost always begins in one hand before the other. Usually the two hands are unequally affected, one hand showing marked finger contractions, while the other hand may exhibit only slight nodules and bands in the palm. The hand first involved is usually the one worse affected. The lesions are not exactly symmetrical in most cases, but have different locations in the two hands; thus, the ring finger of one hand and the ring and little finger of the other may be the ones involved, or the ring finger of one and the middle finger of the other, and so on for a great number of possible combinations. In the great majority of the bilateral cases, therefore, the two hands differ in the time of the onset of the disease, in the degree of the contractions, and in the locations of the lesions.

As to the frequency of Dupuytren's contraction, William Anderson states that of 2,600 adults of the poorer classes in certain English infirmaries, about five sixths of whom were over middle age, 33, or 1.27 per cent., were affected in various degrees, while of 800 children under sixteen, none was affected. Noble Smith, among 700 elderly inmates of English workhouses, found 70 cases (10 per cent.) of Dupuytren's contraction, in 15 of which the disease was confined to the palm; in 444 women examined by him all had well marked finger contractions, and 15 others had simply palmar indurations; this would leave 256 men, among whom occurred 44 cases (17 per cent.). Nichols examined the hands of 1,000 ex-soldiers, ranging in age from twenty-one to eighty-five years and averaging about fifty-three years, and found 39 cases, or 3.9 per cent., of Dupuytren's contraction; in 13 of these cases the palm only was affected, without contraction of the fingers, leaving 26 (or 2.6 per cent. of the whole) having material contraction of the fingers.

The diagnosis of the affection from other diseases of the hand is usually easy. It may be mistaken for flexion of the finger due to contraction of the long tendons. In the latter case there is, as a rule, no palmar induration, and on attempting to straighten the finger the tendons may be felt to become tense above the wrist; in addition the terminal phalanx is also flexed in many instances. In cicatricial contraction there is the history of injury, the scar tissue, and the absence of the typical features of Dupuytren's contraction. Arthrogenous deformities are recognizable by the history, the anatomical features present, or the constitutional condition; arthroses may coexist with Dupuytren's contraction, however, introducing an element of doubt as to the precise share either may have in the production of the deformity present. Hammer finger exhibits no palmar changes or cutaneous ones, and it is sufficiently characteristic to be readily distinguishable; it is probable that some of the cases diagnosticated and recorded as Dupuytren's disease, specially among the alleged congenital cases, and those stated to have developed in early life, were in reality instances of hammer finger.

Case.—The case that I wish to report relates to a man fifty-three years of age, who is a cabinet maker by trade. His family history is negative in every respect. He himself had never had any sicknesses of any kind, never any rheumatism or syphilis. In January, 1901, he first noticed the right ring finger beginning to be drawn into the palm. Six months later, the right middle and little fingers began likewise to flex. He has never had the slightest sensation of pain in either hand, neither has he had any severe trauma to either hand. His occupation requires a great deal of the time his pressing against an awl with the palm of the hand. A year after the trouble in the right hand began, the left palm began to show some knots and stiffness. The fingers affected in the right hand have gradually contracted more and more. The left hand is only involved to a slight degree as yet, and does not interfere to any extent with his work.

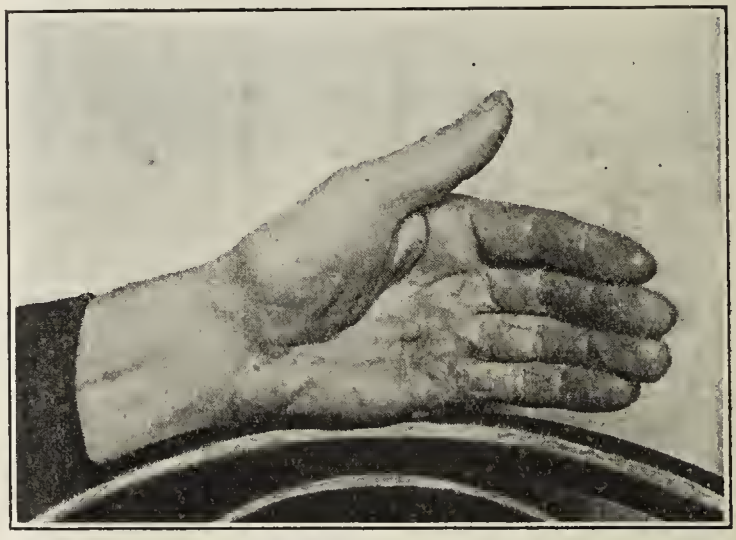

Fig. 3.—Left hand, showing beginning stage—nodules in palm and slight flexion of fingers.

Examination. Middle aged man of healthy appearance. No arteriosclerosis. Heart and lungs normal. Urine normal.

Right hand. In the midpalmar line, beginning at the interthenar depression, is a band, the size of a lead pencil, and as hard as a piece of wire. The band does not correspond to an interdigital space, but runs along the metacarpal bone of the ring finger, terminating over the palmar surface of the second phalanx of the ring finger. The transverse line in the palm is very much deepened by the marked flexion of the fingers. Just beyond this transverse line there is an enlargement of the band, which branches off at this point into three divisions, a middle one, much the larger, proceeding to the ring finger, a second one going to the little finger, and a third to the middle finger. The middle, ring, and little fingers are flexed to somewhat more than a right angle with the palm, the ring finger being more flexed than either of the other two. The deformity consists in a limitation of the extensibility of the fingers; for within the limits allowed by the contracting bands, flexion and extension are unimpeded, but beyond them further extension is impossible. The flexion is in the metacarpophalangeal joint and that between the first and second phalanges. The distal phalanx is not flexed at all. The index finger and thumb are unaffected.

Left hand. In the position of the transverse crease over the metacarpal bone of the ring finger, there is a very hard nodule, the size of a pea. Radiating from this toward the wrist and toward the finger there is a beginning hard band. The skin of the palm is hard, rough, uneven, and has a number of depressions in its surface. Extension of fingers only slightly impaired.

Operation, February 26, 1903, right hand only. Gas and ether. Tourniquet about lower arm. Incision longitudinally along the palmar band continued upon the first ring finger phalanx. Two incisions made from near the extremity of the first incision, one over the band going to the middle finger, the other to the little finger. Skin edges dissected away on both sides of the incision from the dense, underlying fascia. Small bands connecting the fascia and the skin had to be divided. The prominent longitudinal band was about two-fifths of an inch wide and of the consistency of cartilage. It could only be cut away piecemeal, as it was intimately adherent to the tendon sheath beneath, which latter was with difficulty recognized and was opened in one place by mistake. The digital nerves were not clearly identified until they were traced back into the palm from the sides of the fingers. After the palmar band had been excised, the fingers still resisted extension. This was found to be due to accessory bands extending to the sides of the fingers. It was impossible to dissect these all away, so that it was necessary to be content with transverse division of them, thereby running the risk of dividing the digital nerves. The fingers finally could be straightened after stretching the skin, which cracked slightly in one or two places. The opening in the tendon sheath was closed with catgut and the skin brought together with fine silk, an opening being left in the middle of the palm for a small gauze drain. The tourniquet was removed, a copious dressing applied, and the hand with the fingers perfectly straight bandaged to firm splints, anterior and posterior.

Healing occurred by primary union except at one point near the finger at the junction of two of the incisions where there was a superficial necrosis. The splint was kept applied for just two weeks. At the end of one week the splints were shortened, so that the end phalanges projected beyond the ends of the splints, which enabled the patient passively to work the last joint and prevent stiffness and adhesions. At the time of the dressings the fingers were cautiously and slightly bent. It was found that there was great stiffness. The splints were left off entirely on the fourteenth day and gradual active and passive motions instituted. On questioning him I found that there were numbness and greatly diminished sensation of both sides of the little finger. In a month's time he resumed his occupation of cabinet maker. The fingers could be actively perfectly flexed and extended. The skin of the palm was smooth and thin, and the scar was soft and not elevated. In December, 1903, I saw the man again. He was delighted with the result of the operation, for his hand was as useful as it had ever been. The scar was very inconspicuous. He was meditating having the left hand operated on. Sensation was perfect in all the fingers, except in an area the size of a lead pencil on the centre of the palmar surface of the last phalanx of the little finger, where there were numbness and insensibility.

The difficulties of treatment in these cases have been all the greater because so little is known as to their ætiology. It is generally admitted, however, that these cases belong to the surgeon. The earlier surgeons, on account of their erroneous opinions as to the situation of the disease, made matters worse by their operative procedures—thus Guéretin, Malgaigne, etc. believed that the disease lay in the muscles, so they divided the tendons, with the result of changing a contraction into a paralysis. Sir Astley Cooper advised the more rational procedure of a single subcutaneous division of the tense fascial band, followed by forcible straightening of the fingers. This is usually followed by a recurrence, and does not seem to be sufficient. William Adams advocated a method of multiple subcutaneous division of the contracted bands, which is even now recognized as one of the most popular, as well as efficient, procedures. A straight tenotome is introduced between the skin and the band nearest its proximal end, and the band cautiously cut down upon and divided.

As many sections are made along the band toward its distal end as are necessary to free the finger and enable it to be straightened; as many as twenty sections may be necessary. An anterior splint is applied after a dressing, with the fingers extended. Before the advent of aseptic surgery, this was certainly the most advisable procedure, but the earlier objections to open operations on this account have now largely passed away. This procedure of Adams's is used and advocated by numerous surgeons at the present time. There could be no objections to following this procedure, followed by a second division or by a more radical operation when the deformity recurs, as it will do in many cases. Dupuytren himself divided the skin transversely in the palm, followed by the division of the tense bands thus brought to view. Goyrand's method was to expose the fascial band by a longitudinal incision through the overlying skin, the band then being divided transversely. The numerous recurrences, together with the disastrous results of wound infection, led surgeons for a time to advise against all operative measures. Various appliances were then devised forcibly to extend the fingers, but the results were seen to be merely temporary, besides requiring great heroism on the part of the patient. Dupuytren found that a weight of 150 pounds produced no appreciable change in the flexion of a finger. Busch later devised a method which is to-day used by some surgeons. In this, a long triangular skin flap is cut, having its base corresponding to the contracted phalanx and its apex in the palm at the proximal end of the band. This flap is dissected up, the fascia exposed, and the contracting fibres are divided until the finger can be completely extended. The flap retracts, and the resulting open wound, originally V-shaped, is sutured into a Y-form. This method, like the others, is not radical enough. A modification would make it admirable—namely, the excision of the bands, instead of simple division of them.

Mosengeil warmly advocated massage; he asserted that he had observed cures of over a year's standing. This may help very much to prevent the advance of the disease if started early before it has become advanced. In well marked cases it does not seem to have won much confidence.

Eulenburg reports favorable results from electrolytic treatment of the fascial bands. The results have not been observed sufficiently long to form a judgment.

Kocher, in 1887, reported a method which today is the best and most frequently used procedure. Its principle is the excision of the fascial bands. A longitudinal incision is made over the cord through the skin, which is dissected free from the underlying diseased fascia. When the fascia is closely connected with the skin it may be difficult to make the separation well, but the connections have simply to be cut with the scissors, taking care not to make the skin too thin or to buttonhole it. The band is then dissected out carefully, including its prolongations to the sides of the fingers, and cut away. The edges of the skin are closed with sutures. There is no loss of skin by this method. This will be found a very satisfactory procedure in most cases.

Since the whole palmar fascia is not excised, we may expect in a certain number of cases that fingers, originally unaffected and unoperated on, will subsequently become contracted like the first ones, necessitating a second similar procedure. The fingers once thoroughly operated on, however, rarely recontract.

The operation is much facilitated by the use of a tourniquet about the lower arm. A general anæsthetic is necessary as a rule. Local infiltration anæsthesia will tend to increase the liability to gangrene of the skin; besides, it is not always sufficiently prolonged in its action. Keen has reported (*American Medicine*, October 31, 1903) a patient with Dupuytren's contraction to whom he did not dare give an anæsthetic, on account of cardiac disease and chronic bronchitis. He exposed the median and ulnar nerves at the wrist by infiltration anæsthesia and then injected into each nerve about ten or twelve drops of a one per cent. solution of cocaine. I quote from his article: "In a few minutes I began the operation in the palm of the hand, making two incisions, one from the first interphalangeal joint, beyond the knuckle of the middle finger, nearly up to the wrist in the line of the cord. A similar incision was made corresponding to the ring finger and its cord. The two contracted cords of the palmar fascia were then exposed by dissection, severed, and excised. The extensions of the contracted cords on to the second phalanx of each finger were also thoroughly severed. . . . The operation required a more than usually careful dissection, so that it lasted nearly fifty minutes. At no time did she suffer the slightest pain."

To avoid the possibility of any of the fingers subsequently recontracting, Janssen, of von Bergmann's clinic, has published, in the article cited above, a new method devised by Lexer, who used it in eight cases. The entire palmar skin together with the fascia underneath was excised, and the large defect thus arising was covered in either with skin flaps taken from the whole thickness of the skin of the thigh or with flaps fashioned from the skin of the chest to which the flaps remained fastened by a pedicle, which was severed in ten days. The results in all the eight cases were excellent, and remained so for two years and a half of observation, except in two cases in which keloids developed, requiring subsequent operations. This operation certainly seems a formidable one to advise in the ordinary cases, but it may be used to advantage in the severest and recurrent ones. Sensation was found subsequently to be perfect in the transplanted flaps.

Whatever operative procedure is performed, this should be followed by careful postoperative treatment. Splints should be applied until healing has taken place in any case. At the end of two weeks they may be removed each day for gradually increasing periods when massage and passive motions should be instituted. After operation no greater degree of extension should be applied immediately than can be employed without too much tension being exerted upon the wound for fear of gangrene. In a few days this can be increased to full extension and there maintained. In bad cases it may be well to have the patients wear at night for some time some form of splint or retentive apparatus to hold the fingers in full extension.

Gangrene of a portion of the edges of the skin incision is a complication which sometimes causes anxiety. It may not be avoidable in cases where the skin is intimately adherent to the fascia to be removed, resulting in the skin being very thin when dissected from the fascia. To avoid this, Lotheisen has recommended in severe cases making a flap, the base of which is external, the incision beginning at the first phalanx of the little finger, running along the ulnar edge of the antithenar eminence to the height of the transverse carpal ligament, and then across the palm of the thenar eminence. This has the advantage of not bringing the scar along the course of any tendon, so that its mobility will not be injured by adhesions to the scar in case some gangrene results. The increased blood supply of this large flap may likewise prevent gangrene. The development of a hæmatoma under the skin in any method of operation would favor gangrene; hence oozing should be stopped after removal of the tourniquet and before sewing the wound. In addition, a small drain should be placed in the middle of the palm, to be removed in thirty-six hours. The fingers should not be extended too far immediately after the operation, to avoid putting the skin on the stretch, which would interfere with the blood supply. For the same reason the dressing should be applied loosely without compression. The straight longitudinal incision along the course of the bands seems to be best and most employed. Several may be necessary along the different bands. Should these lie so closely together a to render the integrity of the intervening skin doubtful, the procedure may be performed in several sittings.

In some few cases, keloid formations have taken place in the scar. This cannot be avoided. They may require a secondary operation with possibly skin grafting. The x rays have also exercised a beneficial influence on these growths.

We may now sum up the treatment of these cases as follows: At the beginning of the disease, we may often prevent its further development by systematic massage, active and passage motions, hot air baths, hot water baths, with the application of extension apparatus at night. Any constitutional diathesis should be treated. In case the disease advances, or in somewhat more developed cases, we may try the result of multiple subcutaneous incisions, followed by the palliative treatment just outlined. In working persons, who can scarcely find the necessary time and means properly to carry on the palliative treatment, we should advise at once a radical operation as the quickest and surest means of effecting a cure. It should be advised at once also in advanced cases. This consists in nothing short of excision of the whole thickened, contracted fascia, with its processes, preferably by one or more longitudinal incisions. Many surgeons advise, even in the beginning stage, excision of the fascia, as guaranteeing the surest and quickest results and as giving the softest and least adherent scar.

The final results of the operative treatment of Dupuytren's contraction are usually very satisfactory.

50 East Fifty-third Street.

The Johns Hopkins New Surgical Laboratory was opened on October 5th. Among those specially invited were: Professor L. F. Barker, formerly of the Johns Hopkins University, now head of the department of anatomy in the University of Chicago; Dr. Charles L. Dana, of Cornell University, professor of nervous diseases; Dr. Hobart A. Hare, professor of therapeutics in Jefferson Medical College; Professor Ludvig Hektoen, of Rush Medical College, professor of pathology, who has written a number of articles on pathology; Professor Abraham Jacobi, professor of diseases of children at Columbia University, New York; Dr. W. T. Councilman, Dr. J. J. Putnam, Dr. F. C. Shattuck, and Dr. Thomas M. Rotch, of Harvard University; Professor Johannes Orth, of the University of Berlin, pathologist; Professor Kitasato, of Tokio, the neurologist; Sir Felix Semon, physician extraordinary to King Edward; Sir Lauder Brunton, F. R. S., of London; Major Ronald Ross, F. R. S., of University College of Liverpool, and Professor Angelo Celli, of the University of Rome. There were so many invitations issued that the whole faculty of the Johns Hopkins University could not be invited, and the committee to represent the faculty was composed of Dr. Howard A. Kelly and Dr. William S. Thayer.

A VESICAL CALCULUS OF UNUSUAL SIZE.

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The patient was Carmon Monaco, aged seven years, and born in Italy. The history showed father and mother healthy, one brother, aged four years, and one sister, aged one year, both healthy.

At the age of two years his parents' notice was first called to the child's trouble by his evidence of pain during urination, each act being accompanied by violent crying, and finally convulsions. During the intervals the child appeared to be well and happy. Urination became more frequent and the child's distress more evident so that the parents consulted a physician, who, after making an examination, informed them that there was a tumor growing in the child's bladder and advised operation, which was refused. His condition grew steadily worse, he began to lose weight, and became very weak and anæmic.

He was brought to this country in 1900 and again taken to a physician, who ascribed his trouble to cystitis and treated him for the same. For a time there was slight improvement, but his old condition gradually returned and he was placed in one of the large hospitals where he remained eight months, being still treated for cystitis.

He was finally removed and parents took him to a physician who diagnosticated his trouble as stricture of the meatus and advised operation; this was not consented to by his people.

On the 12th of March he was brought to me, having suffered, up to this time, a little over five years.

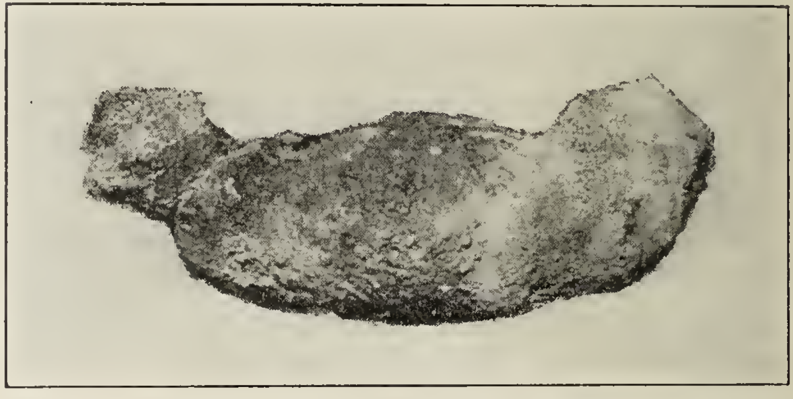
Present condition: Boy, weak, anæmic, emaciated, and nervous; not able to stand erect, but walking in a crouching position; expression anxious. When he was placed on the table, he lay with the legs flexed, extension causing pain. The abdominal muscles were well developed, the penis hypertrophied with foreskin elongated, and testes retained. Both external rings were patulous, and there was a mucopurulent discharge at the meatus. Pressure on the suprapubic region caused intense pains. The bladder outline was enlarged, the perinæum was bulging, reddened, and tender. Examination per rectum was not possible on account of extreme tenderness.

The urine was voided about every ten minutes during the day, and from eight to ten times during the night. For the last four years the child had not been able to get a good night's rest. The amount passed each time was 10 c. c., the last few drops containing a large amount of blood and pus cells.

A diagnosis of calculus was made and operation was advised, to which his parents readily consented. He was placed on an alkaline diuretic for five days, and stimulated so that he could withstand the necessary shock.

Operation.—March 17th. The bladder was emptied by a soft rubber catheter and thoroughly irrigated with warm boric acid solution. About 40 c. c. were left in the bladder and the catheter was clamped. A median suprapubic incision was made down to the perivesical tissue. This was incised and the bladder walls were revealed, covered with distended veins. Traction sutures of silk were placed in the bladder wall and the incision was carried down between them.

The walls of the bladder were hypertrophied, being fully 4 cm. in thickness. The mucous membrane was punctured, the fluid removed, and the stone was felt to be imbedded in the trigone. It was carefully enucleated, and brought into the opening, and removed, care being taken not unduly to injure the mucous membrane, which was deeply injected and greatly thickened.



The calculus, actual size.

The bladder was now washed out with hot boric acid solution and the walls were brought together according to Gibson's method. To secure perfect drainage, a tube was left in the bladder through the incision. Sterile gauze was packed in the lower angle of the wound between the symphysis and the bladder; the skin was closed with chromicized catgut. Urethral drainage was secured with a retained catheter.

After-treatment.—The bladder was washed every two hours with hot boric acid solution. The gauze was removed at the end of twenty-four hours and the tube from the bladder on the second day, no urine escaping after it was removed. The catheter was removed from the penis every second day, sterilized, and replaced, and was removed entirely at the end of ten days.

The patient made an uninterrupted recovery, the highest temperature being 101.5 on second day.

Conclusion.—Although vesical calculus is commonly found in children of the lower classes, the fact seems to have been lost sight of by his attending physicians. The interesting features in the case are the size of the stone and the length of time it had remained unrecognized. The illustration is from a photograph of the exact size of the stone, which was composed of ammonium and magnesium phosphates and weighed 14.96 grammes.

RESPIRATORY EDUCATION IN THE TREATMENT OF LUNG AND HEART DISORDERS.*

By J. MADISON TAYLOR, M. D.,

PHILADELPHIA.

This communication is offered as a plea for the wider use of educational development of the function of respiration, and is based upon experience in cases where other customary measures had signally failed. Much has been written and said by those who recognize and use respiratory exercises as an auxiliary to measures which are called scientific, but the subject is capable of much amplification and practical adaptation.

The scientific possibilities of developing the function of respiration are both large and useful, provided they be pursued by those who appreciate reasoning from physiology, and are equipped with a practical familiarity with and appreciation of the principles of physical education. It is safe to assert that few physicians fulfil these requirements, especially the latter.

The ground for making this statement is a personal investigation of many years. The counter assertion arises of an over enthusiasm exaggerating the value of physical economics. The reply to this is that of all therapeutic fashions that have come and gone not many can compare in primordial reasonableness to the employment of scientific researches as to the best means of economizing and enhancing the bodily forces through education and development. Few persons have well developed lungs when young, and fewer in middle age.

It is true we shall have more and better knowledge as the study proceeds, but our purpose here is to call attention to the principles by which action can even now be taken to the great advantage of patients; if compared with the exploiting of convictions which the physician may cherish as to the healing properties of favorite drugs, the decision would seem to be decidedly in favor of functional development. Why have so few recognized the value of functional education or the potentialities of systematic organic development?

The most obvious reason is the lack of cooperation between the physiologist and clinician, who until recently have drifted much apart, and only slowly now are the currents setting together.

The next reason is the indolence or ignorance of medical men in the personal application of mechanical remedial measures. The word of counsel, the directions for use of drugs or differentiations in diet, climate, and the like are assumed to suffice for most needs, whereas the demonstration of how to amplify thoracic competence involves some labor.

Hence if developmental measures are used at all, their application is usually delegated to others. Most of all, however, that which impairs confidence in special movements and manipulations is the fact that such large, shallow, and unsupported claims are made as to their efficiency by those who are neither educated in the natural history of disease nor held in check by those ethical bonds which so completely influence the conscientious physician. Nevertheless many of these claims are probably in essence justifiable. Now that so widespread a popularity is accorded to bodily cultivation, every newspaper and popular magazine teems with articles on physical culture, it behooves the profession judicially to sift this empirical evidence.

We have always learned most from the marshalling of empirical facts moving along scientific lines and growing by natural selection.

The time has come for the profession to give the same thought and study to physical economics, the training of the body, the husbanding and developing of its resources as it has been giving to studies in pharmacology in its search for disease preventing and correcting measures.

In the two great departments of organic damage, diseases of lungs and of the heart, the value of rest has long been deemed paramount. Any attempt to use activities, voluntary or passive, have been viewed as perilous. The reason for this is that regulated activities and physical training are apt to be considered only from the standpoint of muscle building, which is only rarely of value and with which this communication has nothing to do. Again physical training has been left almost altogether in the hands of those without medical education or experience. When physicians realize the possibilities for their patients which lie in the education of the machinery of respiration and circulation, and make careful clinical experiments in tissue reorganization and readjustments through these agents, we may expect great advancements in the restoration of functional competence. Already there has been much good work done in these lines by certain medical authorities, and for many years. Assuredly it is not possible for any one to judge of, nor to test, the efficacy of breathing exercises or stretching movements at second hand. To submit a patient entirely to the tender mercies of an uneducated physical trainer or masseur and expect to get uniform or definite results would be no wiser than to send him to a reputable druggist and encourage the selection from his stock of such remedies as in his own judgment would meet the needs of the case.

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* Read before the American Climatological Association.

It has been my good fortune to see many admirable results follow manipulative treatment, breathing exercises, passive stretchings, and carefully directed active movements at the hands of others. This was often among patients who had failed to improve in the hands of good physicians previously consulted. The element of mere suggestion may be ignored; they having had many better or more stimulating promises. It is only permitted to speak now directly of my own experience. This has been sufficient to strengthen the conviction that better results will increasingly follow these measures, provided physicians can be induced to become reasonably expert themselves. It is not contemplated here to offer details; that may come later. Nor is it expected that unsupported assertions or claims will be accepted as to the character or quality of the results obtained. The proofs will be supplied on another occasion. Curiously enough conclusions are not considered tenable unless case histories are presented in conventional fashion, with a due marshalling of temperature and respiration charts, sphygmograms, blood counts, uranalyses, and the like, which are supposed to add to the veracity of the narrative. Nevertheless, it is possible now to refer to the character of the cases treated, to describe in outline the kind of treatment employed, and finally to emphasize the principles on which alone the best results can be expected.

The material from which my inferences have been drawn consists in great part of neurasthenic folk exhibiting derangements of the respiratory and circulatory organs. Some of them showed advanced tuberculous disease of the lungs, many grave susceptibilities pointing toward phthisis, also evidences of old pneumonia, chronic bronchitis, pleural adhesions, atelectasis, and the like. Certain others displayed definite cardiac disease with the customary array of sequent disabilities. In a large number there were various disorders of circulation, vasomotor ataxia, erythromelalgia, œdema, tachycardia, dyspnœa, exophthalmic goître, evidences of advanced arteriosclerosis, senile myocardia, etc. A great number of children, among whom my experience has chiefly lain, have been studied. They are most difficult to teach, but the results have been practically satisfactory. Among the most gratifying subjects can be cited many physicians and medical students, male and female.

In search of specific remedies we have neglected one of the most efficient means of cure. By means of medicine, drugs, serums, electricity, rays, and the like, we can hope to accomplish certain results of enormous importance, provided we measure possibilities by brilliant promises. No account, however, is usually taken of fortifying the body through developing its latent powers from the standpoint at which they are found, or of recovering tissue elasticity.

This is the prerogative and field of respiratory education and whatever else tends toward disciplining and conserving the inherent powers of the organism, however large or small those of the individual may be. This is the broad basis on which the present recommendations are made.

It can be objected that in respect to the disorders of the lungs and heart the lesions may be so advanced that to encourage any voluntary effort involves some peril to degenerated structures. In some extreme instances this demurrer obtains; but, on the other hand, it may be urged that as to drugs we know little enough of their primary or secondary action, and almost nothing of their ultimate effects on remote tissues, especially on damaged or devitalized cells. Certain drugs produce often most happy and powerful effects, such as phosphorus, strychnine, arsenic, iodine, mercury, and the like. Certain of the secretions of the ductless glands promise more; hence some of us turn to the product of these glands taken from animals, and from them marvellous benefit has occasionally come. However, the source of error here is that the gland of an animal, especially when artifically prepared, cannot be as perfect as the secretions of the human body functionating in their normal situations, but perhaps in deficient amount or impaired in potency by one cause or another. Clearly the best thing would be to repair the blood stream, its oxygen carrying powers, the secretory activities, and the energy of the central nervous control mechanisms.

All catabolism, acute and chronic, is admitted to depend upon a minus position of oxygenation. Whatever enhances the oxygen supply makes for repair. Unless the lungs and heart are competent, at least in chief part, full health cannot be maintained, and more particularly when infection progresses destructively in pulmonary disorders. In cardiac defects all the great organs suffer stases with consequent vitiation of secretion and excretion.

First, of the lungs: most pulmonary disorders are of infectious origin, even the milder forms of bronchitis. The toxic effects in the blood, secondary to these infective agents, are overcome in proportion as the lung remains competent to exercise its function of oxygen absorption and primary distribution. When by reason of the destructive action of catabolic products, or by mechanical or other interferences, the supply of oxygen is defective. we do not hesitate to use oxygen gas by inhalation. Again, in those who possess exceptionally well developed lungs recovery is more prompt and complete. In a very large class of patients the thorax lacks much of full competence, of normal development. They are those who cause us most concern.

It is my observation that far less difficulty exists in taking in air than in expelling the vitiated complemental air. In many people renewal of the residual air is rarely or never adequately achieved. In proportion as this air is expelled do we get rid of the pulmonary excreta, many of which are most offensive. Cough, the effort of nature to hasten this, is thus relieved. Cough is the phenomenon of irritation, and is not confined to local effects on the air passages, but other factors contribute, especially toxic vitiation of the blood stream. Cough is a common phenomenon of cardiac disease and of many other organic derangements. Again, the vasomotor function must be reckoned with, and the potency of the adrenal gland has been shown by Sajous to be forceful to an overwhelming degree. The whole of modern hæmatological research makes it clear that oxygen carrying to the tissues is a subject which we must appreciate and control, if possible. Here thoracic competence takes first place, even in advance of digestive competence. Digestion and respiration are mutually interdependent, but it may be a novel view to regard digestion as definitely influenced by thoracic competence and activity, but the truth of this can be plainly demonstrated.

Oxygen must enter the blood in adequate amounts and chiefly through the lungs. In proportion as this is accomplished and distributed does the organism recover from whatsoever malady prevails. Does it involve any peril to encourage the patient suffering from an acute or chronic disease of the bronchi and lungs to voluntarily increase the depth and fulness of inspiration? I think it is improbable. If it should do so it is most likely that any ill effects would be only temporary, and physicians could determine when to exercise caution. Should this very remote and possible peril prevent our encouraging the ingress of more air than is automatically inspired, especially in view of the undeniable benefits which must follow this increased dosage of an absolutely necessary and altogether natural and rational food, or however one may describe oxygen? My experience so far leads me to answer emphatically in the negative. It is not a large one among advanced cases of tuberculous diseases, but I hope that those who are better supplied with opportunities will make further observations. It is tempting in this connection to advert to the shape of the chest as an index of lung power and resistance to tuberculosis or pneumonia. But this must be reserved for a later communication. My experience lies most largely among children and neurasthenic folk, among many of whom the conformation of the thorax is defective, originally, as well as by acquirement. I have learned much from the convincing and brilliant researches of Woods Hutchinson on the thoracic index. One practical conclusion I am inclined to draw from personal observation is that in those individuals who suffer most from persistence of pulmonic and cardiac disorders the shape of the chest is infantile, deficient in normal wholesome development.

For many years I have given much attention to the development of the chest of those who consult me. young and old. This has been followed so often by clearing away of long standing disorders of lungs and heart, and of conspicuous improvements in many other directions, that I am inclined to emphasize the importance of respiratory education in most persons ill or well.

The applicability of respiratory education to sufferers from cardiac disorders, while warranting discussion, may only be mentioned here. The whole cycle of circulatory and tissue lymph stases, water logging, in this class of cases is familiar to all. A few final words should be said as to the objects to be attained.

In most persons the mobility of the thoracic walls is conspicuously defective. The ribs in middle aged people have lost. in great part their normal hinge like action. This demands full rhythmical breathing, both forceful or at least emphatic, inspiration, and expiration. The rate of the breathing should be. first, that which is comfortable, about five (5) seconds in and seven (7) seconds out, and then increased in length gradually until full inspiration can be rhythmically increased to twenty or more seconds in and twenty-five seconds or more out. The apices of the lungs are well known to be only rarely fully distended, and by reason of disuse and consequent defects of nutrition readily become the seat of infection. This apical development should be secured in every one, especially in those whose disablement, by pneumonic or cardiac disorder, discourages or forbids active exercise. The whole subject of pulmonary or thoracic competence warrants discussion, but these hints must now suffice. The valuable effects which breathing exercises are capable of producing upon the digestive organs are not so well known. When it can be demonstrated, however, that through the concomitant action of the external abdominal muscles and diaphragm powerful effects are wrought upon the liver, the gall bladder, the abdominal viscera generally, especially the intestines and stomach, few will fail to recognize their potency. In short, by proper breathing exercises, as I understand them, not only the thorax, but the abdomen is involved in systematic activities. It is not easy to describe the practice or methods, but it will be attempted briefly. The patient may lie, sit, or stand, and the physician should explain that the thorax should be held so that the ribs are as nearly at a right angle to the vertebral column as feasible, and that the act of breathing shall be performed chiefly by the expansion and contraction of the lower ribs, which should acquire an increasing mobility and range.

In expansion the whole chest should enlarge symmetrically, with no marked protrusion or tension of the abdominal tissues. It should fill up steadily toward the apex, and when no further expansion can take place there the sides should then inflate in all directions, but without much downward pressure on the diaphragm. After holding the air in the chest at the highest point of tension for a few seconds, expiration should begin by the indrawing of the umbilicus and the force shared in by all the abdominal muscles which can be elicited in the act, the chest still held high, and a steady compression exerted upon the diaphragm chiefly. When the abdominal muscles have contracted to their full capacity the lower ribs follow, and finally all the air which can be expelled is extruded. A practical point which I find sometimes of value is that at the end of expiration a slight cough may be encouraged which seems to finish the act. Indeed, at first this forceful extrusion of air is usually followed by several coughs; soon this ceases.[1]

The possibilities of variation in the methods along these lines are remarkably large. The effects upon digestion of rhythmic breathing are gratifying beyond original expectation. Constipation yields better than to any other agent known to me. Lymph stasis of the abdominal regions, obesity, visceral ptoses are conspicuously modified. It is an obvious corollary that personal appearance consequently improves not only from the repair of organs and tissues through lymph cleansing, oxygenation, etc., but the psychic effects, the regeneration of central nervous energy, are most gratifying.

My friends accuse me of over enthusiasm in accrediting larger effects to respiratory education than to standard methods, drugs, etc., but it is a matter which is plainly demonstrable and entirely rational. To be sure, one man may use an agent with greater effect than another, but it behooves the man who determines to get the best results, where life and health are at stake, to omit the skilful use of no instrument so exquisite and practical as the latent powers of the organism. If the lungs are so important as we are led to believe, and if they so readily suffer disrepair, it is plainly our duty to learn how they can be brought up to their higher efficiency and maintained there, and this is to be accomplished by a critical study of thoracic development.

THE PRESENT CONDITION OF TENONTOPLASTY.

By PROFESSOR VULPIUS, M. D.,

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(Concluded from page 630.)

We shall now leave the large domain of paralyses and turn to some recently advanced indications, in the first place, for the arthrogenous contraction of the knee. We know that after the most different affections of the knee joint, after rheumatic and tuberculous inflammations, after chronic arthritis, after arthrodeses, and resection of the knee joint, very frequently a flexor contraction is produced which is to be referred to the predominance of the flexor muscles over the extensors. The tenotomy of the flexors, which is to be considered first, by no means always has a lasting result; so that lately Hofmeister has proposed to join in almost a typical way the suture of the flexor tendons to the femur with the resection of the knee joint in the child. In cases where we renounce from the first the idea of getting a movable knee joint, this method of exclusion of the flexor traction is sufficient; in case, however, the knee joint is still movable in itself, the transplantation has to be given preference. Heussner was the first to report such experiments on the knee joint. Codivilla, however, states that he had executed such operations before those reported by Heussner.

We have gained sufficient experience up to now to be able to say that the transplanted flexor muscles are really able to repair the damage caused by them, and not only save the knee joint, which is redressed into a straight position from a newly recurring contraction, but also effect a gradual straightening of a bent knee joint the full correction of which is impossible at first.

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[1] Although practising and teaching this for many years, I found myself a veritable tyro some time ago when a lady, a teacher of physical education, gave me so many new and valuable principles and practical hints that I hope she will put her knowledge in print. This is Miss Martha Smith, of Philadelphia. She takes a rather different viewpoint, emphasizing the psychic effects over the physical.

Also, with the congenital clubfoot, a transplantation might be considered from different reasons. There are, without doubt, clubfeet which have to be referred to intrauterine infantile paralyses. We possess investigations which have proved the seat of the affection to be in the spine, and I myself can cite a series of similar cases in which the transplantation has proved beyond doubt the presence of paralyzed muscles. Such feet may behave toward the redressment in a similarly resistant manner with the severe paralytic clubfoot; that is, the danger of recurrence is still imminent even after a thorough correction of position. We have to act in this form of congenital clubfoot in the same manner as in the paralytic kind, to add to the correction the strengthening of the extensor digitorum and of the supinators. The transplantation may further be considered in the congenital clubfoot, if through deformity of high degree these muscles have atrophied, which have been stretched across it. The shortening of the tendon of the extensor of the toes, which principally has to be considered, suffices well in itself to make the muscle work again; however, it cannot, as a rule, withstand the overpowerful traction of the tibialis anticus. We also see, after a thorough redressment, that the dorsal movement of the foot is always combined with an effect of adduction of the tibialis anticus, which naturally can favor the return of a deformity. It is, therefore, advisable to suture one part of the tibialis anticus to the extensor digitorum. After this operation we see how the foot is now flexed dorsally in a good middle position. And, lastly, I have occasionally performed a transplantation and shortening in single cases in which the round and thick infantile foot could escape even from a bandage which was applied in a technically exact manner. Especially when the heel is developed deficiently, and when its posterior process is strongly drawn upward do children sometimes succeed with an adroitness that is astonishing in slipping off over night a bandage which had been applied with a tightness almost to be dreaded. In such cases I have, as a last resort, fixed the foot at a right angle by means of this operation, and have successfully obviated a slipping off of the bandage.

Finally, we should have to enumerate a series of different indications which occasionally have given reason for transplantation. Heussner has tried to correct the pathological external rotation of the leg after paralysis, and especially after the unbloody reposition of the congenital dislocation of the hip by detaching a part of the glutæus maximus, turning it round the femur inwardly, and fastening it to the trochantor minor. Reichard has replaced by means of transplantation a quadriceps, which had been paralyzed through spondylitis. Heussner has tried to fix a patella which had a tendency to become dislocated by transposing the semitendinosus forward and fastening it to the inner border of the patella. In the therapy for hallux valgus, Weid has proposed a transposition of the extensor tendon to the inside of the big toe, and in a series of cases he has performed this operation with success. Outside of single cases of paralytic deformity of the foot in the wake of muscular dystrophy, etc., the flatfoot or incurved foot has lately been treated by tendon transplantation. Additional to the shortening of the tibialis posticus, which was done first, the strengthening of this muscle was undertaken by means of a slip of the tendo Achillis, in order to secure the position of adduction of the foot. To hold up the arch of the foot, Müller has recommended the transposition of the tibialis anticus tendon, taking the tendon through the navicular bone.

I have thus depicted the domain of tendon transplantation, at least in its broad outlines. It is impossible to enter upon a number of special questions in the limit of this article.[1] Corresponding to the division given in the beginning, we still have to consider only the question of tenontoplasty in the narrower sense, the closure of tendon defects. I have, however, spoken about this in the consideration of tendon elongation as well as in transplantation, so that it well may suffice once more to put together in short words the different methods which open to us for this purpose.

Autoplasty in the loss of continuity of the tendon can be done in such a manner that a slip is made with its basis at the periphery at the central stump. In turning it over to the periphery it may come in contact with the peripheral tendon stump. With this kind of plastics the danger exists that the small bridge at the central end may tear, as has, for instance, happened in a case described by Heuck. Heuck has sutured the fully detached tendon piece between the two tendon stumps and has achieved a very good result. Another plastic operation consists in sewing the two tendon stumps to a neighboring tendon with fitting tension. After they have healed tightly to this tendon in some weeks, they are again detached in connection with a piece of this tendon (method of Hertle). After it had been proved by animal experiments that in animals free tendon pieces could be grafted into tendon defects, such operations were often executed in man, and, in order to fill the gap, partly animal tendons and partly human tendons were used. About the healing in of artificial tendons of heterogenous material I have already spoken sufficiently in the preceding part. We owe above all to Gluck experimental studies, as well as clinical experience. about such tendons of heterogenous material, who in his first reports about this proceeding encountered, as we know, much opposition and distrust until his method was sufficiently verified by other surgeons. As before explained, the closure of the defect can have a functional success only when the muscle concerned is not yet degenerated, and when the tendon can be placed in a tissue the condition of which allows of a free gliding.

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[1] Compare Vulpius, *Die Sehnenüberpflanzung,* Verlag von Veit & Co., Leipzig, 1902.

We have come to the end of our survey. We have seen how extensive and important the domain of tendon operations is to-day. Although a number of improvements are possible regarding the technics, yet we are even now in a position to give help to thousands of paralytic people with our plastic tendon operations. The therapy of the paralyses, which had already been promoted through the advancement in the construction of apparatus and the extensive use of arthrodesis, has become by the perfection of tenontoplasty an exceedingly pleasing and gratifying chapter of our orthopædic science.

Ellis Hospital, Schenectady.—Bids on the construction of this institution will be received until November 17th. It is hoped by the board of directors that all the preliminary work of letting the contracts will quickly be completed and everything will be in readiness for beginning work on the new structure next spring as soon as the ground is sufficiently soft to allow the excavation for the cellar and the laying of the foundation. It is thought that it will take about a year to complete the work after it has been started. One of the features in the new hospital will be the development of the training school for the nurses, a thing which has in a measure been handicapped by the cramped quarters at the present building. All of the latest equipments for this branch of the work will be supplied and lectures will be given more frequently in some room that will be supplied for this purpose.

THE ECONOMICS OF TUBERCULOSIS.

By JOHN B. HUBER, A. M., M. D.,

NEW YORK.

"Tuberculosis causes annually more than 150,000 deaths in the United States at the average age of thirty-five years. At this age the normal afterlifetime is about thirty-two years, so that the real loss of life covered, measured in time, is represented by 4,800,000 years per annum. If we assume that the net value of a year of human life after the age of thirty-five years is at least $50.00, the real loss to the nation resulting from the disease (a large proportion of which is known to be needless) may be estimated at $240,000,000 per annum. These astounding and almost incomprehensible figures are far from being an exaggeration; but let us assume that only one half of this mortality is preventable, and we have a net possible saving to the nation of $120,000,000 per annum. This estimate does not take into account the social, moral, and sentimental value of at least 100,000 lives, which, under different conditions, might reasonably hope to continue for many years. The mortality from tuberculosis is, therefore, a problem compared with which all other social problems of a medical character sink into insignificance, and it is safe to say that the possible prevention of a large portion of the mortality from this disease is justly deserving of the solicitude, the active personal interest, and liberal pecuniary support of all who have the real welfare of the people of this nation at heart."[1]

Biggs estimates that New York City sustains an annual economic loss of $23,000,000; and that the nation at large must sustain an annual loss of $330,000,000 because of tuberculosis. There are yearly 10,000 deaths from consumption in New York City. Seven thousand persons died in Illinois in 1903, half of them between the ages of twenty and fifty years, while the estimated loss to that State alone, because of this disease, was $36,000,000, and the medical authorities of that State have found that consumption is responsible for more deaths than typhoid fever, scarlet fever, diphtheria, all forms of bronchitis, influenza, measles, and smallpox combined.

At the Exposition for Infectious Diseases in Dresden, Germany,[2] it was demonstrated that between five and fourteen years of age the mortality from tuberculosis is 50 per cent. of all deaths; fourteen to eighteen years, 33 per cent.; eighteen to thirty years, 50 per cent.; while from thirty years upward the mortality relatively decreases.

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[1] Statement by Frederick L. Hoffman, Esq., actuary of the Prudential Life Insurance Company, of Newark, N. J., to whom, and to Miss Lillian Brandt, the statistician of the Charity Organization Society, New York City, I am indebted for many of the data in this paper.

[2] *N. Y. Med. News*, October 24, 1903.

The fatality of the disease was shown in this exposition by the fact that of the cases between one and five years over 25 per cent. perish; eighteen to thirty years, more than 33 per cent.; thirty to forty years, more than 25 per cent.; at all other ages it is less than 20 per cent.

Cornet computes that in 1894 there were in Germany 116,705 deaths from diphtheria and croup, whooping cough, scarlet fever, measles, and typhoid fever combined; from tuberculosis, there were 123,904 deaths. These latter deaths were to an extent of more than 75 per cent. from bread winners, whose ages ranged from fifteen to seventy years; in this respect consumption differing quite radically from the other diseases mentioned. In Prussia, consumption produced one third the entire number of deaths. And Cornet reminds us that tuberculosis runs a number of years before it proves fatal, but if we reckon the invalidism due to it to be only one year, and the average loss of wage (on unemployed labor) at a value of two marks per day, then the loss of earnings for each person per year, 300 working days to the year, amounts to 600 marks; so for the total number of those who have died in the bread winning period of life, 71.895 persons, the annual loss of earnings amounts to 43,137,000 marks annually. "If we add to this figure the money for doctors and medicine, for food and care (counting that the sick pay out 2.19 marks per day), for burial, and furthermore, the expenditure for invalids not included among bread winners, we may estimate at least twice as much as the previous figure, or eighty-six million marks as the yearly cost to the Prussian State Consumption, therefore, demands an annual increase of the tax of 3.09 marks per capita, or of 15 marks for each family of five, in the Prussian State."

These figures are striking enough; but upon reflection, how about their connotations? Such deaths are among those in the prime of life, and between the ages when men and women are most valuable to themselves, to their families, and to the State. Let us dispel for a moment the sense of economic loss which these figures represent, and consider what they mean in distress and illness antecedent to death, in torture of heart and mind to the survivors, and in the inherent likelihood of infection and sickness for these latter. There is truly no other single factor, no other destructive agency—catastrophe, pestilence, blight, or warfare—which typifies to the extent that this disease does the pathos of existence and the cold indifference of Fate to human suffering.

Conditions in the United States demonstrate that the mortality from consumption is greater in cities than in rural districts.[3] However, the fail in the death rate during the ten years ending in 1900 has been 24 per cent.; and the ratio of decrease has been six for the cities, as against not quite five for the country. This ratio is surely due to the greater improvement in conditions of city life.

The condition of things in cities generally may be inferred from that which obtains in New York. Here from the fifteenth to the thirty-fifth year, one third to one half the entire mortality results from tuberculosis. And these official figures do not by any means represent the limit, for various reasons:

For instance, up to very recent years, and to some extent even nowadays, mutual benefit societies have refused to pay claims when the deaths were ascribed to consumption; and such also has been, to a measurable degree at least, the practice of some life insurance companies, a large part of whose business is the writing of "industrial" policies. (It is not so nowadays among the important companies.) At any rate, it has been the well-nigh universal impression among the poor that claims would be refused under this circumstance. So that physicians have many a time been importuned by wretchedly poor people, who, fearing the loss of the few dollars so desperately needed, would ask that "pneumonia," or some other cause of death, be entered upon the death certificate. And who shall say how often the tussle in the physician's mind between humane instincts and strict honesty has resulted in the committing of a venial sin; sufficiently often to suggest the inference that such deaths from consumption have been many more than have been set down in the statistics. No doubt many deaths from respiratory diseases have consumption at bottom.

Again, ignorant and stubborn people have tried not to have cases reported as consumption, fearing registration and the application of such wholesome and enlightened administrative measures as are calculated to protect survivors in the community—measures which are not even inconvenient. Even physicians have condoned such concealment, on which account many deaths from consumption are unrecorded.

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[3] Such data as are here set forth concerning the United States are for the most part based upon conditions in the "registration area." Populations of less than 8,000 are considered to be in rural districts. In the presentation of results in the Federal Census those States and cities whose registration records gave evidence of being the most nearly complete were classed together as the registration area. The total population of the registration area amounted to thirty-eight per cent. of the population of the United States. It comprised the States of Connecticut, Maine, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Rhode Island, Vermont, and the District of Columbia, and included so many of the important cities throughout the country that it may be considered fairly typical. It is probable that the superior accuracy of the returns from this area makes them ordinarily more truly indicative of the country as a whole than are the defective returns given for the whole United States.

In New York city, in 1901, Brandt finds that among men between twenty and twenty-nine years of age, more than 36 per cent. died of consumption; and between thirty and forty-four years more than 31 per cent. Among women during the former ages the mortality was 33 per cent.; during the latter 24 per cent. The deaths among men, at least in cities, are rather more frequent than among women. It is really pitiable to observe the proportion of deaths among wage earners from a preventable disease. This greater mortality among men must be attributed to the fact that men live more than women do in cities, to their more strenuous occupations, their factory life, and to their working in "dangerous trades." Most important here is Cornet's observation that consumptives give the disease more to their fellow workmen in factories than they do to their own families. On the other hand, "pregnancy is found to complicate, to develop and to precipitate phthisis remarkably" (Osler).

Hoffman observes that while the mortality among males in cities has been 21 per 10,000, as against 16 for females—a difference in favor of females of 5 per 10,000 of population; in the country districts the death rate has been 12 for males, as against 14 for females—a difference, in favor of males, of 2 per 10,000 population. The mortality of males in cities is higher than the corresponding mortality of males in rural districts; also the mortality of females in cities is higher than the corresponding mortality of females in rural districts.

Still, conditions tending to tuberculosis have bettered in cities and the percentage of deaths from this disease has been less in proportion than in rural districts. However, not only the tuberculosis death rate has to be considered, but also the condition of the living who suffer from it, and "the causal relation which this disease maintains toward many other social problems."

Before the fifteenth year there are comparatively few deaths from tuberculosis, although there has been in infancy and childhood at least as much danger of infection as during any other period of life. The prohibition of child labor, which now generally obtains in this country, has here, no doubt, been effective. Young constitutions, which must formerly have been weakened to a degree of susceptibility to infection, now reach a measurably vigorous maturity. Many children have now no longer to endure the disease engendering conditions of factory life and of indoor occupations. Children are now but little employed in pottery and glass work and like industries which are particularly conducive to tuberculosis and other respiratory diseases.

Moreover, conditions in school life have been very materially improved. Close, overheated schools have given place to large, airy, well ventilated and properly lighted structures. However, conditions are as yet by no means ideal in schools. In attending a public school reception one will observe how in singing the expressions on the faces of many children are strained, as if singing were an effort for them. These children have adenoids, hypertrophied tonsils, or otherwise unhealthy upper air passages. Such are mouth breathers, starved for oxygen—ideal conditions predisposing to tuberculosis.

With regard to mortality from consumption among the single, the married, and the widowed. As a general proposition it is lower for the married than for either the single or the widowed and lower for women than for men. Brandt finds that the only time when the death rate is higher for women than for men is among the married between the ages of fifteen and forty-five years; and here it is also higher than for single women during the same ages. These data are in large part explained by the development of consumption as a sequel to exhausting and frequent pregnancies. The highest death rate of all is among the widowers under forty-four years. After the forty-fifth year the rates for both widowers and widows, while higher than for the married, were lower than for the single. Hoffman observes that the death rate among widowers is highest at the youngest ages, while lowest at the most advanced periods of life. The higher mortality of widowers at early ages is the result of disease transmission from wife to husband. Conversely, there would seem to be a lesser liability in the transmission of the disease from husband to wife; possibly because the husband is away from home a large part of the time, while the consumptive wife being so much more at home, infects the household the more. Widowers have a much higher mortality than widows at corresponding ages: at ages up to forty-four years, 67 against 36; from forty-five to sixty-four years, 49 against 19; from sixty-five years on, 31 against 21.

The high death rates among the single are largely due to occupations; to the fact that a far higher percentage of the single than the married live in cities, where the devastation is much greater than in the rural districts; and to habits of life detrimental to longevity, such as alcoholism, to which the single have more temptation than the married. This last factor may tend also to explain the greater mortality among the widowed than among the married. And the favorable mortality enjoyed by the married is certainly due in large measure to marriage being inherently a process of natural selection toward which only the fit tend, and also to the greater regularity and soberness of living essential to matrimony. Particularly is this so of consumption, a disease which thrives upon irregularities and exposures.

44 East Sixty-fourth Street.

VULVOVAGINITIS IN LITTLE GIRLS. A CLINICAL STUDY OF 190 CASES.*

By SARA WELT-KAKELS, M. D.,

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Epstein, in his excellent monograph on vulvovaginitis in little girls, points out that the fluor albus or fluxus in children was mentioned in some treatises on diseases of women and children, as early as the eighteenth century. The fluor in children was looked upon as a curiosity, a freak of nature; like the menstruatio præcox, it was considered a sign of precocity. Johann Storch, in 1750, was the first who described the simultaneous appearance of fluor albus in a woman and her three year old girl; but he apparently did not suspect any interdependence of the affection in both. Ramel, in 1785, cites an observation on "flueurs blanches héréditaires" in two sisters aged six and eight years, who had been afflicted with the fluor since early infancy; their mother had also been suffering from an obstinate discharge for many years.

Toward the close of the eighteenth century the interpretation of the vaginal discharges in little girls was considerably influenced by Hunter's teachings of the identity of gonorrhœa and syphilis. Doublet and Bertin enumerate among the symptoms of syphilis in the newborn the blennorrhœa of the mucous membranes. The mere presence of a purulent vaginal discharge in the newborn seems to Bertin to be sufficient evidence of syphilis.

Under the influence of the teachings of Broussais, and especially of Ricard, who insisted upon the ætiological difference of syphilis and blennorrhœa, the views on the genital discharges in little girls were considerably changed. Rayer, in the first monograph on this subject, in 1821, mentions, as the most important ætiological factors, teething, digestive disturbances, and the lymphatic constitution. The term: vulvovaginitis, was for the first time used by Dr. S. Behrend, in 1848, who, on clinical grounds, described various forms of vulvovaginitis; a gonorrhœic form is not mentioned by him.

In the *Annales de Cazennac*, of 1846, appears the first report of a transmission of a purulent genital discharge. A woman suffering from blennorrhœa conveyed the disease in the bath to two little girls; in 1860 some English physicians differentiated gonorrhœa from leucorrhœa in little girls; but it was thought that it could be caused only by direct contagion. Foster, however, reports gonorrhœal affections in three little girls, sisters, whose parents suffered from the same trouble; the children were bathed with a sponge that had been used by their mother.

J. E. Atkinson described, in 1878, the occurrence of six cases of contagious vulvitis in children between five and twelve years of age, in a charitable institution in Baltimore. The children slept in the same dormitory and questioning elicited the fact, that they visited each other at night. A year or eighteen months previously, the institution had been visited by an outbreak of contagious ophthalmia, during which nearly all the inmates, including some of the attendants, were attacked. At the time of the appearance of the vulvitis, two or three cases of ophthalmia were in the infirmary; at the same time some of the inmates suffered from catarrhal and ulcerative stomatitis. Atkinson assumed that the discharge from either the ocular or buccal mucosa was conveyed, most probably on the fingers of some of the girls, to the vulva, and was the active cause in the production of the vulvitis.

In closing his interesting article, he maintains that "the origin of the cases is as readily accounted for as if we knew that gonorrhœal pus had been brought into contact with the vulvar mucosa of the children, and interest rests in the circumstance, that there was a vulvitis due to a specific contagion, other than venereal; the treatment of the cases was very tedious."

In the same year, Morris, in a paper read before the Baltimore (Md.) Academy of Medicine, affirmed that vulvovaginitis in little girls was not an uncommon trouble, owing to the prominence of the external genitals in childhood; that family endemics were frequent; and that it could easily be communicated through clothing, water closets, etc.

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* Read before the Section on Pædiatrics, New York Academy of Medicine, May 14, 1903.

Morris found specific vaginitis in children a very intractable disease, and in some few instances wholly incurable. In 1881, Charles A. Faille reported seven cases of vulvovaginitis; in describing the clinical symptoms, he mentions that in his cases, not only the vulva, but also the vagina, and nearly always the urethra were affected. Faille undoubtedly recognized the infectious nature of the disease and cautioned against the danger of carrying the vaginal secretion to the eyes.

To Pott, in 1883, belongs the credit of having pointed out the great frequency of vulvovaginitis in children; he also was the first to report a large number of cases; between 1876 and 1882 Pott observed, at a children's clinic in Halle, among 8,395 children, of whom 3,921 were girls, 86 cases of vulvovaginitis; somewhat more than 1 per cent.

Of these, 56 children were under five years of age, 23 under ten years and 7 over ten years. Pott frequently noticed a few children affected in the same family, where the parents, most frequently the mother, suffered from purulent genital discharge; he drew from these facts the conclusion that vulvovaginitis in little girls was usually caused by indirect contagion. He also insisted on the identity of the gonorrhœal vulvovaginitis in little girls with that found in adults; the gonorrhœal character was up to that time determined solely from clinical symptoms and from the communicability of the affection to the conjunctiva.

Neisser's discovery of the gonococcus, in 1879, did not as yet have any practical influence in the study of the ætiology of vulvovaginitis in little girls.

The first bacteriological examinations were made by E. Fränkel during an endemic of infectious colpitis in the Allgemeine Krankenhaus, in Hamburg, between 1881 and 1884; mostly among children admitted to the hospital with scarlet fever; in 1881, 3 cases of infectious colpitis occurred; in 1882, there were 8 among 67 female scarlet fever patients; in 1883, 26 among 125 such patients; and in 1884, 25 among 39 such patients; but not one girl who had reached the age of puberty contracted colpitis, though treated in the same room, by the same attendants; nor could there be found one case of gonorrhœa among the boys in the scarlet fever ward. Children in the fifth, sixth, and ninth years were most frequently affected; after the tenth year the susceptibility was considerably diminished.

Though Fraenkel was able to demonstrate microscopically the presence of a diplococcus in the vaginal secretion, identical with Neisser's gonococcus in every respect, yet he believed in a different virulency of both cocci, as the course of the vulvovaginitis in the Hamburg endemic was so much milder than in the adult, and inoculations with the genital secretion in the conjunctival sac of 3 moribund girls was followed in only one of them, by an inflammation of moderate intensity, and not by a typical ophthalmia; the conjunctival secretion contained, however, cocci identical with those found in the vaginal discharge; the second eye did not become infected, though no precautionary measures were taken; of the 2 other children one died twelve hours and the other two days after inoculation.

From these reasons Fraenkel believed, that the endemic was not caused by the gonococcus, but he assumed that there might be a special coccus of different virulency that caused the colpitis. These views were severely criticized by Czeri, who questioned the validity of Fraenkel's arguments, as his inoculations in the conjunctiva of moribund children were without much value; on the other hand, Fraenkel did not seem to appreciate the importance of the fact that 4 of his patients were taken ill by autoinfection with purulent conjunctivitis, terminating in one of them with the formation of a leucoma; the milder course of the disease in the child, Czeri explains upon the basis of physiological differences and the peculiar structure of the infantile vagina.

Widmark, however, had found, in 1884, Neisser's micrococcus in the vaginal discharges of little girls, and thus proved the gonorrhœal nature of vulvovaginitis. Czeri examined the vaginal discharges of 26 children between three and ten years of age, in the Pesther Kinderspital, who had contracted vulvovaginitis during their stay at the hospital, and constantly found a micrococcus identical with Neisser's gonococcus.

In 1887, Suchard, of Lavey, a sulphur spring in Switzerland, observed an epidemic of vulvovaginitis among the bathers; of 12 girls who had bathed in one pool, one, a six year old child, acquired, after the fourth bath an acute vulvovaginitis; she was at once isolated, and the basin thoroughly cleansed, but inside of the next six days the other 11 children had also contracted it. The disease was of a very mild type, and only lasted four weeks. Two months later a new outbreak occurred; in another adjacent pool, 11 girls, a woman of thirty years of age, and a boy aged three years, were bathing, and after the seventh bath, 3 girls were taken ill and in the next three days the remaining 8 girls acquired the disease; the woman, however, and the little boy escaped it. It is not mentioned that a bacteriological examination was made.

Dusch observed, in the Children's Hospital in

Heidelberg, between 1886 and 1888, 19 cases of infectious catarrh of vulva and vagina; 9 of these were infected in the hospital; the age of the children varied between one year and a half and twelve years; the largest number being between two years and a half and four years; the subjective symptoms were usually slight; gonococci were found constantly and nearly always in large number in the vaginal discharge.

F. Spaeth reported, in 1889, 21 cases of vulvovaginitis in children between three and fourteen years of age; in 14 cases the gonococcus was found in the vagina as well as in the urethra. He emphasizes the participation of the urethra in the gonorrhœal form, and looks upon it as further proof of the identity of the affection between children and adults.

In 1891, R. Skutsch described the largest epidemic of gonorrhœal vulvovaginitis in children. In the city of Posen, during August, 1890, 236 schoolgirls, aged from six to fourteen years, were taken ill inside of eight to fourteen days with vulvovaginitis; all the children had contracted the disease in a public bath house, where, on account of limited accommodations, two or more children were required to bathe in one tub; the common use of sheets in the bath house may also have been instrumental in the spread of the vulvovaginitis. It is interesting that, though a large number of boys availed themselves of the privileges of the public bath house, none of them contracted gonorrhœa. Microscopical examinations, which were made in the larger number of girls, showed the presence of gonococci; after a duration of twelve weeks, the secretions of 140 girls were examined, and 60—about 43 per cent.—were found to contain gonococci.

In the same year, J. Comby reported 151 cases of vulvovaginitis in children. The youngest child was three weeks old, and acquired the disease in the course of ophthalmia neonatorum. Comby believed that the malady most frequently resulted from an accidental contagion; bacteriological examinations, however, were not made in his cases; and it seems that he does not attach much importance to such examinations.

In 1891, Epstein published 3 cases of gonorrhœal vulvovaginitis in the newborn, seen among 625 newborn girls. He differentiates the simple, or desquamative, catarrh, which he considers as part of the general desquamative process of the integuments in the newborn, from the gonorrhœal form. Epstein asserted that this latter form was due to the contact of the infantile genitals with the infectious secretion of the genital canal of its mother during parturition. The more frequent occurrence of the opthalmoblennorrhœa is explained by the fact that, as the head presentation is the most common, the conjunctivæ are longer exposed to the infectious discharges; the genitals may also be infected at a later time, either by antoinfection, from an existing ophthalmoblennorrhœa, or by the hands of the nurse.

He believed that gonorrhœal vulvovaginitis in the newborn was easily overlooked; that many cases detected at a much later date might date back to an infective intra partum.

In the next year Cahen-Brach reported 26 cases of vulvovaginitis in children between one year and a half and twelve years of age. The genital discharges contained gonococci in all but one; in 23 cases the urethra was also involved. The author considers the urethritis the essential and primary symptom, and assumes a secondary infection of vulva and vagina from the secretion of the urethra. On this account he proposed the name of urogenital blenorrhœa instead of gonorrhœal vulvovaginitis.

Berggruen reported 31 cases. Only 11 with gonococci; in 7 the discharge was purulent, but without gonococci; while 10 were of the catarrhal form. Berggruen believes in the existence of a contagious, non-gonorrhœal form of vulvovaginitis in children.

Cassel published, in 1893, 30 cases of vulvovaginitis in girls between seven months and eleven years of age; 24 of them were of the gonorrhœal type; in the other six, the disease ran a different course.

Koplik, who had seen in six years more than 200 mixed blennorrhœas of the genitals—girls and boys—recorded the cases of 24 little girls; 17 of these were of the gonorrhœal form. Koplik divides the vulvovaginitis into 3 groups. Cases of the first group, are characterized by a somewhat swelled and reddened introitus, exceedingly tender, with a few erosions around the hymen and the urethral orifice, with very slight serous discharge; uncleanness, adherence of smegma or dusting powder may cause this condition. A second group of cases are the real catarrhal forms. These cases suffer from a scanty or profuse purulent discharge from the vulva, which present all the clinical features of the next group, but is not of a specific nature, though infectious; it is communicable from child to child. The third group are the true gonorrhœas.

In 1894, J. L. Morse cited 5 cases of vulvovaginitis in children between two and five years and three-quarters old; the presence of the gonococcus could always be demonstrated; the urethra was usually involved.

Weill and Barjon report a hospital epidemic which could be traced to infection from a rectal thermometer.

Fisher mentioned 54 cases of vulvovaginitis in little girls, of whom 50 were gonorrhœic; the disease was most frequently contracted from other members of the family.

Heiman, in a very careful article, lays stress on the fact that the normal vulvovaginal tract is never a habitat for the gonococcus; having examined 20 healthy girls aged from three months to thirteen years, he believes that there is a specific microorganism in catarrhal colpitis, either the diplococcus of Bockhart or that of E. Fraenkel.

Sheffield reported, in 1896, the occurrence of an epidemic of 65 cases of gonorrhœal vulvovaginitis in the Hebrew Sheltering and Guardian Orphan Asylum in this city; it was traced to an orphan who was admitted to the institution suffering from gonorrhœal vulvovaginitis. The disease was conveyed to the other orphans through bathing vessels, 20 to 30 of the inmates having been bathed in one large bath tub at the same time. After the eradication of the epidemic, 32 more cases appeared at the asylum, one or two at a time. The origin could usually be traced to the common use of beds, bedsheets, small bath tubs, etc. Bacteriological examination showed the presence of gonococci.

It is of interest to state, that ten years previously, in 1886, in the same institution, 38 orphans suffered from "leucorrhœa," 18 of whom contracted purulent ophthalmia.

O'Donovan, in 1899, emphasizes the frequent occurrence of gonorrhœal vulvovaginitis in children among the negroes of Baltimore; the slides invariably showing the presence of gonococci.

Romnicéanu and Robin reported, in 1901, 150 cases of vulvovaginitis from the surgical department of a hospital in Bucharest, during fourteen years; 130 of these were of gonorrhœal character; the mode of infection was mostly indirect.

Personal Observation.—At the children's clinic of the Mount Sinai Hospital Dispensary, I have seen between January, 1893, and January, 1903, 190 cases of vulvovaginitis. The total number of children treated during that time was 11,578; the percentage therefore was more than 1.6 per cent., somewhat higher than that found by other authors; thus, Pott mentions 1 per cent., while Henoch found one in 1,500 children. The statistics of the Armenkinderspital, in Pesth, show a percentage of 0.7 per cent. among 32,873 children; at the Anna Kinderspital in Graz, 15 cases of gonorrhœal vulvovaginitis were found in the year 1890, in a service of 4,501 children; while Seiffert found among 3,414 sick children at the Polyclinic, 22 cases.

The cases reported by me never occurred epidemically, but in isolated instances during my service. Of the 190 cases were:

Between 0 and 1 year	9
Between 1 and 2 years	11
Between 2 and 3 years	29
Between 3 and 4 years	35
Between 4 and 5 years	30
Between 5 and 6 years	18
Between 6 and 7 years	16
Between 7 and 8 years	13
Between 8 and 9 years	12
Between 9 and 10 years	8
Between 10 and 11 years	5
Between 11 and 12 years	1
Between 12 and 13 years	3
	190

The largest number occurred in children between two and five years of age; in children above the tenth year the disease was rarely observed. The duration of the affection at the time the children came first under observation varied between three days and a few months; not a few, however, had suffered from a genital discharge for a number of years, and had been treated before at other institutions. Of the 190 cases observed, the largest number were of the gonorrhœal type, and only a small minority belonged to the catarrhal type.

The clinical symptoms in the early stages of gonorrhœal vulvovaginitis were very characteristic, the large labia were intensely reddened and œdematous, from the contact with the irritating discharge—or as, it has lately been asserted, caused by an invasion of the gonococcus into the epidermic cells—glued together by the thick discharge, which dried in crusts, adhering to the labia majora. Attempts to remove the crusts were painful, and often revealed superficial ulcers of the underlying tissue, bleeding easily; even the adjacent parts, the genitocrural folds, the inner side of the thighs, the perinæum and the circumanal region, participated to some degree in the inflammatory process. Frequently they were the seat of an annoying eczema. The vulva was bathed in a thick, greenish, purulent discharge, in unclean children, of disagreeable odor; if mixed with blood, it assumed a reddish brown, dirty color; the mucosa of the vestibulum was also acutely inflamed; small erosions frequently surrounded the orifices of vagina and urethra; the latter was often closed with pus, or a drop of pus could be made to exude from it, by pressing the urethra against the pubis. But while urethritis was most frequently present in the recent cases of gonorrhœal vulvovaginitis, I do not, from my experience, consider it a symptom indispensable to the diagnosis.

In a few cases Bartholin's glands were prominent and sensitive to pressure; suppuration was never observed. The vagina was inflamed in all cases, at the time they were first seen; possibly, because the trouble had existed for some time previously, or because the delicate mucosa of the vagina cannot resist the entrance of the gonococcus and becomes primarily affected; pressure on the perinæum caused a more or less copious discharge to escape the vagina.

The inguinal glands were in a large number of cases found to be swelled and slightly painful on pressure, but I do not recall having seen suppuration of these glands. Only at the onset, and even then in severe cases only, was the temperature elevated; while in the further course it was not noticed, but at the occurrence of complications. There also was for the first few days frequent and painful micturition; occasionally, from fear of pain, retention of urine; pain in walking, and itching, especially if the discharges were not freely washed off; rarely, disturbances in the general condition were noticed.

In the catarrhal form of vulvovaginitis symptoms of acute inflammation were absent; vulva and vagina were reddened and somewhat swollen; the discharge scant and serous, or milky; rarely purulent and copious; very rarely painful micturition. From these findings it was, however, not always safe to exclude gonorrhœa, as occasionally these mild catarrhs were remnants of gonorrhœal forms; and gonococci were demonstrated in the secretion.

(*To be continued.*)

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Food Adulteration Trials.—The trials of some of the men who were arrested during the summer and accused of selling adulterated and diluted milk were conducted in the Public Buildings on September 21st, 22nd, and 23rd. As a result, five men have been found guilty and sentenced to terms of imprisonment varying from ten to twenty-five days and to pay fines of from $50 to $75. Others were merely fined. In the case of Peter Hernig, accused of preserving cream with boric acid, a verdict of guilty was brought by the jury; but a new trial has been moved. Testimony concerning the deleterious action of boric acid and borax when taken internally was given by Dr. J. C. Wilson, Dr. Howard S. Anders, and Dr. Carl Frese, of Philadelphia, and by Dr. Horace R. Smith, of Altoona. C. B. Cochran, State chemist, testified that the cream examined by him contained seven and one half grains of boric acid to the quart.

OBSERVATIONS ON CARBOLIC ACID POISONING.

By CHARLES V. BURKE, M. D.,
NEWARK, N. J.

A recent case of poisoning by carbolic acid, ingested with suicidal intent, has driven home opinions, long held, that some of the teachings with regard to the effects of that drug and the treatment of poisoning by it need revising.

I have notes of twelve cases of carbolic acid poisoning. In all of them the drug was taken supposedly with suicidal intent. Only two of these patients recovered; one an hysterical girl, in whom it is doubtful if much or any acid reached the stomach. The other recovery was in a case in which about one ounce was taken. Repentance followed hard upon the taking, with a big drink of whiskey, and the stomach tube was applied within fifteen minutes. This is the only case I have seen in which unconsciousness existed and the patient recovered. The unconsciousness lasted about half an hour.

Carbolic acid is absorbed very rapidly in sufficient quantity to paralyze the heart, and it is this paralysis, in my opinion, which is the cause of death, and not respiratory failure.

Several times I have been able to get a response from the breathing apparatus by rhythmic traction on the tongue long after all signs of cardiac activity had ceased.

Vomiting I have never seen, nor convulsions, except those that could be ascribed to hysteria. When taken in sufficient quantity the acid is a quickly acting, fatal poison; and I believe it to be painless.

If a person who is supposed to have taken carbolic acid is screaming or making any kind of a rumpus the physician may be assured that the amount taken was small; or the acid, perhaps, got no further than the mouth or throat.

As to treatment. From personal observation I have come to the conclusion that the sulphates (Epsom and Glauber's salts) mentioned everywhere as antidotes are practically useless. They do not save life. I recall a case in which a woman swallowed about an ounce of acid while standing in a drug store, and the sodium sulphate was given immediately after the act, and in large quantity, yet she died in the ambulance.

On the other hand, I think that alcohol is of great value, and, if given promptly and followed by efficient stomach washing, will save life.

The use of the stomach tube is always necessary when any appreciable quantity has been taken.

The tube should be a fairly stiff one, for the passage of a tube through an œsophagus down which carbolic acid has been poured, generally necessitates the use of more force than can be transmitted along a soft tube. The mucous membrane is roughened and dry, being deprived of its natural lubricant.

The watery fluid that pours so freely from the mouth comes from the salivary glands, and is of no aid in the passing of the tube. The swallowing reflexes are abolished and there is spasm of the œsophageal entrance. The tube should, therefore, be freely coated with vaseline. The fear of a stiff tube is not well founded. You cannot do more injury than rub off the mucous membrane, which, under the circumstance, does not matter.

The deep eschars which the timid physician sees in his mind's eye do not exist—they are a later development—and a man who cannot pass a stiff tube into the stomach without doing damage has no business to pass any kind of a tube.

The treatment, then, that I would recommend is, shortly, alcohol, and the removal of what acid may remain in the stomach. Alcohol first; by the mouth if possible. If not, it must be thrown into the circulation in generous amount hypodermically, and by the rectum, before the tube is resorted to.

Upon getting the tube into the stomach, a weak alcoholic solution should be used for washing, and its use persisted in until judgment decides for success or failure.

To sum up: If a person who has got one ounce or more of carbolic acid into the stomach is to have a ghost of a show, there must be on hand: Whiskey, a physician with brains, a stomach tube, vaseline, a mouth gag, a tongue forceps, and more whiskey.

537 FERRY STREET.

A CASE OF SYPHILIS, IN A BOY SIX YEARS OF AGE, CONTRACTED BY COITUS.

By G. FRANK LYDSTON, M. D.,
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PROFESSOR OF GENITOURINARY SURGERY AND SYPHILOLOGY,
STATE UNIVERSITY OF ILLINOIS, MEDICAL DEPARTMENT.

A boy, six years of age, was brought to me September 8, 1904, by the family physician, with the following history: Some time during the early part of May, 1904, the child had been induced by a girl, nine years of age, to attempt coitus. The girl had been examined a few weeks before by the same physician who brought the boy to me, and found to have vulvar condyloma. The parents were so enraged at the diagnosis, that they did not return with her; and she was consequently lost sight of. The coitus, or attempt at same, had been repeated a few days after the first attempt. About July 25th, the boy was brought to his physician on account of a sore prepuce and an eruption upon the body, which had been present for some days. The chronology of the case was not very definite. A diagnosis of syphilis was made, and the case brought to me for counsel and confirmation of the diagnosis. The condition was as follows: Generalized papuloerythematous syphilides; some of the roseolaceous spots were in the pigmentary stage, and, according to the history, were fading slowly; primary inguinal adenopathy, very typical, prominent, and painless; general adenopathy, unmistakable; hernial and epitrochlear glands, especially prominent. There was no alopecia. The faucial engorgement was marked, and there were mucous patches upon both tonsils. The prepuce was phimosed; at its orifice was a typical initial induration, still well marked, although the physician stated it was much smaller than it had been.

Therapeutical Notes.

Sodium Salicylate in Exophthalmic Goître.—Joussemet, in an article on goître in *Revue française de médecine et de chirurgie,* for August 22, 1904, states that the prejudice against the use of sodium salicylate in the disease has arisen from the untoward effects produced by very large doses. When given well diluted, and its effects on the kidneys carefully watched, it may be given to great advantage:

℞	Sodium salicylate	15 grammes (½ ounce);
	Rum	60 grammes (2 ounces);
	Syrup of bitter orange peel Distilled water	of each....100 grammes ($3{}^{1}/{}_{3}$ ounces).

M. Tablespoonful every three hours, well diluted.

Sodium bicarbonate or potassium bromide may be added to the foregoing.

Another excellent prescription is:

℞	Sodium salicylate Extract of liquorice	of each.......5 to 10 grammes (${}^{1}/{}_{6}$ to ${}^{1}/{}_{3}$ ounce).
	Distilled water	150 grammes (5 ounces).

M. Tablespoonful, well diluted, every three hours.

In cases of great intolerance, large draughts of vichy water following the dose are sometimes useful. The treatment should continue for at least one year, with occasional short intermissions.

Thrush.—*Revue française de médecine et de chirurgie,* for August 22, 1904, recommends:

℞	Sodium bicarbonate	4 grammes (1 drachm);
	Sodium borate	2 grammes (30 grains);
	Syrup of blackberries	20 grammes (${}^{2}/{}_{3}$ ounce).

M. For a mouth wash.

In rebellious cases, the affected mucous membrane may be rubbed with a piece of rough linen, and the following applied:

℞	Glycerin	20 grammes (${}^{2}/{}_{3}$ ounce);
	Starch Sodium borate	of each.....4 grammes (1 drachm).

M. Apply with a camel's hair brush.

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THE SEXUAL ERRORS OF YOUNG CHILDREN.

In this issue we publish an account, by Dr. G. Frank Lydston, of Chicago, of a case which, though perhaps not unique, is of sufficient rarity, happily, to claim general attention and so pitiable as to call for grave consideration by moralists as well as physicians. Briefly stated, the facts were as follows: A girl, nine years old, was found to have syphilis. This was the diagnosis given by the physician to whom she was taken. The parents, with that show of indignation that most of us are familiar with, repudiated the diagnosis and thereby enabled their wayward or ignorant daughter to give syphilis to a little boy, six years old, who seems to have attempted to have sexual intercourse with her.

It is not for us to say that this little girl was really vicious. Her sexual appetite was certainly precocious, but we are perfectly in the dark as to what roused it into premature activity; perhaps it was stimulated by the real viciousness of an older person, male or female, or it may have been due to local irritability dependent on such a commonplace matter as the existence of pinworms. Whatever may have been the cause of it, her sexual precocity led her to acts fraught with the infection of herself and a still younger child with a loathsome disease.

While it is undoubtedly true—and most fortunate it is that such is the case—that the great majority of young children do not feel any sexual impulse, and therefore are spared temptation that they are not yet mature enough to withstand, physicians are perfectly well aware that precociousness of sexual feeling is by no means rare, and many teachers have the same knowledge. We believe that multitudes of the victims of this precocity are reclaimable—indeed, that they reclaim themselves as added years bring information and lead to self-contemplation, though detection in illicit acts, and still more the unfortunate occurrence of venereal disease as a result of such acts, make their rescue a matter of great difficulty, if not well nigh an impossibility.

We know of but one way of shielding sexually precocious children from errors that may wreck them, and that must be applied to all children alike, for nobody can tell in advance which child is precocious and which one is not, and even those that are not may be corrupted by those that are. That way is to avoid leaving boys and girls to mingle without supervision. It is easy to carry out this precaution under favorable circumstances, but the conditions that prevail in tenement houses of the lower class and in many rural schools make it very difficult to enforce. Those conditions, it is hardly necessary to say, ought to be abolished.

A SEQUESTERED BIT OF STOMACH.

The history of a very interesting case is related by M. Adenot and M. Latarjet, of Professor Poncet's surgical clinic at the Lyons Hôtel-Dieu, in the *Presse médicale* for September 3rd. It was that of a young woman who in her infancy had had an epigastric hernia containing a portion of the stomach. The extruded portion of the organ was strangulated at the outset and consequently became detached from the main body of the stomach. External ulceration took place, so that the interior of this "little stomach" (realizing, as the authors say, a condition brought about experimentally in animals by Pawlow) communicated with the external world.

Here, one would say, was an ideal condition for continuing the historic studies of Beaumont on Alexis St.-Martin, who had a traumatic gastric fistula, for the original innervation of this "little stomach" was so preserved that it took its futile part in the functional activity of the parent organ, secreting gastric juice when food was swallowed. But it was this secretion, copious to the degree of constituting a source of annoyance, that led the young woman to seek relief in surgery, for in no other way had her curious anomaly interfered with her following the life of a domestic servant.

"Spontaneous gastrostomy" is one of the terms applied by the authors to the condition that existed in this case, the rarity of which they properly point out. An operation for its correction was undertaken, and it proved successful, though difficulties were encountered as a result of coughing excited by the anæsthetic. And thus was lost to science an opportunity seldom afforded for experiments on human digestion.

THE THERAPEUTIC MODUS OPERANDI OF YEAST.

That we are still almost wholly at sea in regard to the way in which yeast exerts its remedial action seems evident from a review of various hypotheses given in the *Revue française de médecine et de chirurgie* for September 5th, the review being founded on a thesis by Dr. Ferry. Debouzy, writing in 1894, conceived that yeast secreted a principle that was destructive of the microorganism of furuncles, whether the latter caused boils or acted pathogenically in any other way. In 1899 Landau suggested this triple action: 1. A direct cellular antagonism and the action of its products. 2. An appropriation of the nutritive substratum to its own use, to the detriment of other bacteria. 3. A mechanical action, crowding out pathogenic microorganisms by its own increase of bulk.

Petit, under the guidance of Calmette, and apparently having mainly in mind the topical action of yeast in leucorrhœa, was inclined to attribute the remedial effect to the disengagement of enormous amounts of carbonic acid, whereby the genital passages became filled with a medium poisonous to aerobic microbes. He would deny that yeast has a true antiseptic action, thinking that any such power would annihilate its own properties. Thiercelin and Chevrey deduce from the therapeutic activity of levurin the supposition that yeast acts chemically, rather than by the direct effect of any vital process. Adrian suggests that yeast may owe its remedial virtue to its containing a zymase of whose chemical composition we are as yet ignorant. Büchner's protoplasmic liquid, obtained by immense pressure exerted upon the cells, has not proved in the hands of others to be possessed of remedial qualities. Nobécourt has been unable to detect phagocytosis by yeast cells.

If the foregoing seems like a list of negations, it at least may serve to relieve investigators of some useless labor, and, on the other hand, it may point the way to a profitable repetition of some of the experiments on which the various theories have been founded. Meantime, the chief point, that of the remedial efficacy of yeast, seems to have been well ascertained, and most of us can reconcile ourselves to its empirical employment pending the establishment of a reasonable *methodus medendi.*

PROPRIETARY MEDICINES.

The wide use of many proprietary pills or mixtures is distinct evidence of the great power of foolishness and fraud, even when directly opposed to honesty and instructed wisdom. How shall we best explain it? On any rational grounds it is difficult. On the other hand, it is certainly true, practically, that many people, despite reasoning, enjoy deception. At all events, they love mystery in medicine, quick remedies, cure-alls. Again, even well educated men and women think of disease somewhat as they do of a person, viz., as having an entity which may be and is properly combated by a certain remedy, simple or combined. This means to them that, given a disease, or even the name thereof, it must be immediately attacked with its antidote, under the form of some much advertised preparation. No matter that they know nothing of the maker of the preparation, of his character or capability; no matter who the person to be treated is, old or young, rich or poor, a person ordinarily blessed with good health, or a delicate, broken-down individual with a personal history of many previous ailments; the medicine is good for all equally and must be beneficial if taken as advised on the bottle's label. Of course, there are a few who will be considerate enough to add, after extolling the virtues of the proprietary mixture, that they advise you to consult your physician before taking it; as though he could tell anything more than one who reads the papers, lay or religious, daily. Of course, many of these medicines are of good appearance, taste, and smell, and in some cases may be beneficial. On the other hand, we do not become familiar with the great number of persons who have been injured by taking them or to whom they have proved valueless.

Far be it from the promoters of proprietary medicines to vaunt their failures or their injurious results! And certainly the brainless victims of quackery are not going to herald abroad, as a rule, the evidences of their own stupidity, obstinacy, or utter lack of ordinary common sense, especially as they are credited with making use of reasoning faculties almost hourly in their conduct toward other matters far less important to their welfare. We must admit also that the number of these proprietary medicines is ever increasing, and that we are literally swamped with their number and with the effrontery of their agents. All manner of appeals are made to us, direct and indirect. Personal interviews, circulars, advertisements with colored and alluring headings, so called scientific articles by real or unreal medical brethren, reports of hypothetical or occasionally true cases, in which the contents of one or more bottles have produced wonderful curative results, are innumerable. Again, we have good business men and eminent divines so lacking in proper conscience or reasoning as to endorse cordially things of which they know absolutely nothing, and thus help to do untold harm to many who rely upon their statements and who apparently have not learned as yet "the wisdom of the serpent," which it is so essential to possess. If these leaders of the blind would only stop with their pernicious endorsements of quack medicines! But, alas, they go far beyond that and let their names be peddled about as endorsers of institutes for curing with secret remedies alcoholism and all narcotic appetites. No attention is paid by these "good men and true" (God save the mark!) to the moral turpitude of their conduct, but only to the simple fact that possibly good has come to some poor fellow by swallowing, or taking in another way, an unknown something, and therefore it may be proclaimed, vaunted, and upheld as the salvation of all afflicted ones. Among proprietary medicines, some come from wholly obscure houses, trying to foist a new patent stuff of doubtful nature and origin upon the public; others undoubtedly have a certain badge of respectability in a commercial sense. and yet the manufacturers are unwilling to make known the component parts of their pills or drug mixtures. From other firms the different ingredients may be found on the bottle labels, but the quantity of each one is withheld. In rare instances the drugs and their doses are printed fully on the labels. In the latter examples, if we may rely upon the character of the advertising firm, and if the printed formula appears unobjectionable or desirable for any given case, we may, in my judgment, under certain circumstances, properly prescribe them. There are times when to formulate a mixture rapidly, one that is suitable to a particular patient, is very difficult to accomplish in a satisfactory manner, and if we know or firmly believe that a proprietary combination will do as well as anything we can write for immediately, perhaps better, on account of the great care in its preparation and its precise and accurate combination, we are justified in selecting it. Evil may be done, of course, to the ignorant and unreasoning by the tacit permission, so to speak, thus given to others to prescribe things which are of no value and which come from unreliable sources. In additon, we may find that once a special preparation is thus endorsed, it will be taken many times without the advice of the physician and recommended to friends and others on many occasions and for numerous and various ailments. Of course, taken in this blind, unconscionable way, it is far more likely to be harmful than beneficial.

How, then, may we avoid the use of proprietary medicines and at the same time be most useful to our patients? One way is to have on hand at some reliable druggist's a mixture formulated by the physician himself, to meet best in treatment certain aspects of disease. To do so saves time and thought and solves more than one perplexity in actual practice. Seemingly, to act thus has the appearance of trade, and is liable to be misunderstood; and yet, as I know, it is resorted to by some honorable specialists, and even a few general practitioners, and has, as I have written, its favorable or strong and also its weak or unfavorable side. To be wholly fair or unprejudiced we must admit that there are a certain number of combinations of drugs from well known pharmacists which are unquestionably useful and reliable. Again, there are methods of preparation probably, or a certain special skill or care as to the nature, use, and compounding of agents of the materia medica, which render a particular combination or single remedy of one firm more active and powerful than a similar preparation or drug sold by other firms.

If it were permissible, I could cite many examples to justify my assertion. Now the problem presents itself, How shall we abridge or stop quackery, fraud, the preying on the public by the ignorant and soulless, in the matter of drug merchandise, and yet not deny to our patients the benefits derived from our own acquired knowledge? Practically, I know to-day of but one method, viz., never to deal with or encourage houses of which the character or reliability is at all questionable, never to prescribe mixtures or pills of which the component parts or doses are unknown. Now, then, as to the precise way in which a particular pharmaceutical house has acquired possibly a special skill or knowledge about the preparation of a drug or a combination of drugs, or how it has become honored by its prominent rivals—*that* I do not believe we should attempt to-day, as practising physicians, to investigate too closely. Let it suffice for us to know that with firms of standing the best drugs are used, the published formulas reliable, and the methods of compounding beyond criticism or reproach. Further, it is for us solely to determine clinically, with the use of their products in suitable cases, what effects we obtain. As to druggists, as with physicians themselves, the primary, all important consideration always is—*character*. Without it the druggist, like the physician, is a source of untold harm in many ways. With it the harm done by him is reduced to a minimum, and the good accomplished may be considerable.

BEVERLEY ROBINSON.

THE LATE PROFESSOR FINSEN'S WORK.

Perhaps the best that can be said now of the Finsen system of treating certain diseases by means of various forms of light is that it seems promising. The work of Niels R. Finsen, who has just died in Copenhagen, at the age of forty-two years, has been most important in placing upon a scientific basis the therapeutic action of light. Professor Finsen was a native of Iceland, and received his preliminary education in the Faroe Islands, completing it at the University of Copenhagen, where he took his degree in 1890. Just at the opening of his career, his health gave way, and his arduous scientific labors were carried on while he was suffering from a most painful and incurable disease. His first published work on the *Effects of Light on the Skin* appeared in 1893, and attracted widespread attention. In 1896, as a result of his investigations, Finsen's Medical Light Institute was established in Copenhagen, and in 1899 he published the first of his series of monographs, in which he recorded the results of his researches with painstaking care. It is much to be regretted that Professor Finsen has been lost to medicine at such an early age. Fortunately, he had always made singularly clear, detailed, and accurate reports of his observations, so that the way is paved for an exhaustive study of light in its possibilities as a therapeutic agent.

SEWER GAS.

A few years ago discharges of sewer gas into houses were looked upon by our sanitarians as among the chief and most deadly assaults of infectious disease germs, and many a householder was so frightened by the bogey as to order the destruction of convenient plumbing. We recovered from that alarm, but perhaps the pendulum has swung too far in the opposite direction, for now we find the Chicago Health Department calling attention anew to sewer gas as a vehicle of pathogenic germs.

DIGITALIS AS A HEART STIMULANT.

In the September number of the *Monthly Cyclopædia of Practical Medicine* Dr. Charles E. de M. Sajous writes further on the basis of his brilliant experimental studies of the physiology of the suprarenal gland. " Digitalis," he says, " is probably the most perfect cardiac stimulant of our pharmacopœia, but only because, better than any drug, it enhances the activity of the pituitary body, which, in turn, so stimulates the suprarenal glands as to bring them to their highest functional possibilities."

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Nurses' Home of the Cleveland City Hospital.—The formal opening of the nurses' home of the Cleveland City Hospital, Scranton Avenue, took place on September 27th. The home has been established in connection with the hospital's growing needs, and is equipped with all modern conveniences. The reception was attended by the mayor and the board of public service, the sixty doctors of the hospital's visiting staff, and the nurses.

News Items.

Society Meetings for the Coming Week:

MONDAY, *October 10th.*—New York Academy of Medicine (Section in General Surgery); New York Academy of Sciences (Section in Chemistry and Technology); New York Medicohistorical Society (private); New York Ophthalmological Society (private); Gynæcological Society of Boston; Burlington, Vt., Medical and Surgical Club; Norwalk, Conn., Medical Society (private); Medical Association of the Greater City of New York; Society of Medical Jurisprudence.

TUESDAY, *October 11th.*—New York Academy of Medicine (Section in Genitourinary Surgery); New York Medical Union (private); New York Obstetrical Society (private); Buffalo Academy of Medicine (Section in Medicine); Kings County, N. Y., Medical Association; Rome, N. Y., Medical Society; Medical Society of the County of Rensselaer, N. Y.; Newark, N. J., Medical Association (private); Trenton, N. J., Medical Association; Clinical Society of the Elizabeth, N. J., General Hospital and Dispensary; Northwestern Medical Society of Philadelphia; Practitioners' Club, Richmond, Ky.; Richmond, Va., Academy of Medicine and Surgery.

WEDNESDAY, *October 12th.*—New York Pathological Society; New York Surgical Society; American Microscopical Society of the City of New York; Society of the Alumni of the City (Charity) Hospital; Society for Medical Progress, New York; Pittsfield, Mass., Medical Association (private); Philadelphia County Medical Society; Lenox Medical and Surgical Society (private); Medical Society of the Borough of the Bronx, New York.

THURSDAY, *October 13th.*—New York Academy of Medicine (Section in Pædiatrics); New York Academy of Medicine (Section in Otology); Society of Medical Jurisprudence and State Medicine, New York; Brooklyn Pathological Society; Medical Society of the County of Cayuga, N. Y.; South Boston, Mass., Medical Club (private); Pathological Society of Philadelphia; Church Hill Medical Society of Richmond, Va.

FRIDAY, *October 14th.*—New York Academy of Medicine (Section in Neurology); Yorkville Medical Association, New York (private); Brooklyn Dermatological and Genitourinary Society (private); German Medical Society of Brooklyn; Medical Society of the Town of Saugerties, N. Y. (Anniversary).

NEW YORK.

Infectious Diseases in New York.—No report has been received from the Health Department for the week ending October 1st.

Changes of Address.—Dr. L. D. Weiss, to 278 West One Hundred and Thirteenth Street; Dr. A. E. Macdonald, to Columbia Court, 431 Riverside Avenue, corner of One Hundred and Fifteenth Street.

Change at Flushing Hospital.—Dr. Leas, who has been the house physician at the Flushing Hospital for several years, has severed his connection with that institution. He will practise his profession in Philadelphia.

Dr. W. P. Northrup, of New York, addressed the Chicago Medical Society and the Pædiatric Society in joint session on Wednesday evening, September 28th. Subject: Pneumonia in Infants, Its Early Diagnosis and Treatment, Apart from Drugs.

The Nassau County Hospital.—The fair given by Mrs. Clarence Mackay at her home at Harbor Hill for the benefit of the Nassau County Hospital netted $10,750. Mrs. Mackay has arranged with the hospital to give $2,000 a year for three years for running expenses and $4,150 goes to the endowment fund. The balance, $600, will be used for improving the hospital grounds.

The Deutsche Medizinische Gesellschaft der Stadt New York held a meeting at the Academy of Medicine on Monday, October 3rd, with the following programme: Misokainia in Medicine, by Dr. Achilles Rose; Concerning the Pathology of Gout, by Dr. Benno Laquer. H. J. Boldt, M. D., president; Herrmann Boeker, M. D., secretary, 227 West Fifty-seventh Street.

The Medical Association of the Greater City of New York.—A stated meeting of this association will be held at the New York Academy of Medicine, on Monday, October 10, 1904, at 8.30 p. m. Order of exercises: Mosquitoes, Malaria, and Yellow Fever, by Major Junius L. Powell, surgeon, United States Army; Tropical Malaria, by John V. Shoemaker, M. D.; Is Mortality Necessarily Higher in Tropical Than in Temperate Climates? by Colonel Valery Havard, assistant surgeon general, United States Army; Tropical Fruits and Tropical Diet, by H. W. Wiley, M. D., of Washington, D. C.; General Discussion on Tropical Diseases, by Dr. Henry Martyn Wells, M. D., medical director, United States Navy, retired, and Dr. Charles F. Craig, M. D., assistant surgeon, United States Army, and others.

Academy of Medicine.—The section in otology will meet on Thursday evening, October 13th, at 8.15 o'clock. Order: Presentation of Cases; A Case of Subdural Abscess with Necrosis of Auditory Canal. Operation, by W. H. Haskin, M. D.; Exhibition of Specimens and New Instruments; paper, Some Points Respecting the Surgical Anatomy of the Facial Nerve, by Henry A. Alderton, M. D., of Brooklyn, N. Y. Discussion by Dr. Phillips, Dr. Berens, and others. Herman Knapp, M. D., chairman. Thomas J. Harris, M. D., secretary, 117 East Fortieth Street. The section in pædiatrics will meet on the same evening. Order: Presentation of Cases; paper, The Possible Influence of the First and Second Dentition in the Production of Convulsions, Especially Epilepsy, by W. L. Spratling, M. D., of the Craig Colony. Discussion by L. Pierce Clark, M. D., and others. Discussion of the Sequelæ of Cerebrospinal Meningitis with Presentation or Reports of Cases, by Dr. Chapin, Dr. Holt, Dr. Koplik, Dr. La Fetra, Dr. Nammack, Dr. Northrup, Dr. Stowell, and others. David Bovaird, Jr., M. D., chairman. Matthias Nicoll, Jr., M. D., secretary, 124 East Sixtieth Street.

PHILADELPHIA.

The Health of the City.—The following contagious diseases have been reported for the week ending September 24th:

	Cases.	Deaths.
Typhoid fever	97	16
Scarlet fever	36	0
Diphtheria	53	7

The city is again free from smallpox. The total death rate for the week was 401 cases in an estimated population of 1,408,154, corresponding to an annual death rate of 14.81 per 1,000 population.

There have been the following deaths from other contagious diseases: Malarial fever, 1; tuberculosis of the lungs, 48; other forms of tuberculosis, 6; pneumonia, 16; erysipelas, 1; puerperal fever, 2; dysentery, 4; diarrhœa and enteritis under two years, 25. There have been no unusual meteorological conditions observed by the weather bureau.

Opening of Jefferson Medical College.—The eightieth annual session of the Jefferson Medical College was inaugurated at noon on September 26th, with an address by William Potter, president of the board of trustees. The incoming freshman class numbered 150 at noon on that day.

Medical Society Programmes.—At the meeting of the Northern Medical Association, held on Friday, September 23rd, Dr. S. L. Feldstein reported a Case of Psoas Abscess Simulating Typhoid Fever. At a meeting of the Pathological Society, held September 22nd, Dr. D. J. McCarthy read a paper entitled Tumors of the Chorioid Plexus.

Deaths.—Dr. John B. Scott, of Gettysburg, Pa., died in the Friends' Asylum for the Insane at Frankford on September 23rd. Dr. Scott had suffered from melancholia since July. He was born in Gettysburg in 1856. He graduated from the medical department of the University of Pennsylvania in 1881.

Dr. E. C. Sample, of Florin, of Lancaster County, Pa., died September 29th, aged 75 years.

Therapeutists at Jefferson.—On Friday, September 30th, Dr. Hobart A. Hare, professor of therapeutics and materia medica in the Jefferson Medical College, introduced to his class Professor Oscar Liebreich, of Berlin, who, after a few introductory remarks, introduced Sir Lauder Brunton. Professor Brunton lectured to the class during Dr. Hare's hour. Both Professor Liebreich and Professor Brunton were entertained, during their stay in Philadelphia, by Dr. and Mrs. Hare.

Medical Society Meetings for Week Ending October 15th.—Monday, Section on General Medicine, College of Physicians; Wills Hospital Ophthalmic Society; Tuesday, Kensington Branch, Philadelphia County Medical Society; Philadelphia Pædiatric Society; Wednesday, Philadelphia County Medical Society; Thursday, North Branch, Philadelphia County Medical Society; Pathological Society; Friday, Northern Medical Association; Saturday, West Philadelphia Branch, Philadelphia County Medical Society.

National Association of Hospital Superintendents.—At the meeting of the National Association of Hospital Superintendents, held in Atlantic City, September 22nd, the following officers were elected: President, Dr. G. H. M. Rowe, of Boston; first vice-president, Dr. Charles O'Reilly, of Toronto, Canada; second vice-president, Dr. George E. Ricker, of Minneapolis, Minn.; third vice-president, Dr. J. R. Coddington, of New Haven, Conn.; secretary, Mrs. A. M. Lawson, of New York city; treasurer, Dr. Reuben O'Brien, of Paterson, N. J.

Opening of the Medicochirurgical College.—The twenty-third annual session of the Medicochirurgical College was opened on Wednesday, September 28th, at 8 o'clock p. m., with an address by Dr. Judson Daland, professor of clinical medicine. The amphitheatre, in which the exercises were held, was well filled with students and their friends, and the nurses from the hospital training school. The incoming freshman class numbered 100 on the evening of the 28th. The vacancy in the faculty, caused by the death of Dr. F. Savary Pearce, professor of nervous diseases, has not yet been filled.

Philadelphians at the International Congress of Arts and Sciences.—Dr. George A. Piersol, professor of anatomy in the University of Pennsylvania, is chairman of the section on human anatomy of the International Congress of Arts and Sciences, now in session at St. Louis, in connection with the exposition. Dr. Hobart A. Hare, professor of materia medica and therapeutics in Jefferson Medical College, is chairman of the section on therapeutics and pharmacology. Dr. George C. Harlan, professor of diseases of the eye in the Philadelphia Polyclinic, is chairman of the section on ophthalmology.

The University of Pennsylvania Medical Department.—The one hundred and thirty-ninth session of the medical department of the University of Pennsylvania was inaugurated on September 30th, at noon. The provost of the university made a short address, after which he was presented with a handsome silver loving cup by the students in the department. The dean made a short speech, in the course of which he announced that $100,000 had been given to the university, the interest of which is to be known as the Spencer Morris prize, and is to be awarded annually to that student of the graduating class attaining the highest average in his examinations. In the evening, Dr. John H. Musser delivered a formal address in one of the lecture rooms in the new laboratory building. Before Dr. Musser's address, Dr. Horatio C. Wood introduced Sir Clifford Allbutt, who made a short speech. The incoming freshman class numbered 143 at 6 o'clock.

Typhoid Fever in West Chester.—There is at present a slight epidemic of typhoid fever. The first case during this year occurred in March. During May, 1 case was recorded; during July, 9 cases; during August, 9 cases, and during September, 32 cases were reported. Several cases from the surrounding country, which is principally an agricultural district, have been brought to West Chester and treated in the Chester County Hospital. The cases have been of all grades, from very severe to very mild. One patient died outside the hospital, and one case in which hæmorrhage occurred thirteen days ago is now doing well. The water supply of the town has been carefully and thoroughly examined by the board of health, and while it is not free from vegetable contamination (owing to a neglected part of the stream a few yards above the pumping section), the water furnished is of fair purity. Of the 32 cases reported during September, 20 received milk from the same dairy. The dairy was inspected and found in first class condition; but there is a stream of water that the cows pass through every day in going to and returning from pasture, which receives part of the drainage from West Chester. The water is high enough in this stream to cover the udders of the cows. The board thought that the infection may have started from this source and has advised the proprietor not to serve milk in West Chester at present. The dairyman has agreed to this.

Dinner to Messrs. Orth, Escherich, and Allbutt.—On Thursday evening, September 29th, Professor Orth, of Berlin; Sir Clifford Allbutt, of Cambridge; and Professor Thoedor Escherich, of Vienna, were entertained at dinner at the Bellevue-Stratford by the private subscription of a number of Professor Orth's former students and other alumni of the medical department of the University of Pennsylvania. Among those present were: Dr. James Tyson. Dr. Horatio C. Wood, Dr. Charles K. Mills, Dr. G. G. Davis, Dr. Leonard Pearson, Dr. W. M. L. Coplin, Dr. Francis A. Packard, Dr. George B. Wood, Dr. D. J. McCarthy, Dr. Charles W. Burr, Dr. W. P. Longcope, Dr. A. C. Abbott, Dr. John G. Clark, Dr. F. X. Dercum, Dr. J. H. Musser, Dr. Joseph McFarland, Dr. David Riesman, Dr. J. S. Davis, Dr. Samuel G. Dixon, Dr. John K. Mitchell, Dr. B. A. Randall, Dr. S. W. Dougherty. Dr. Charles H. Frazier, Dr. William Campbell Posey, Dr. S. M. Hamill, Dr. M. P. Ravenel, and Dr. Allen J. Smith. After the dinner a Kommers was given at the Roosevelt in honor of Professor Orth and Professor Escherich by the Göttingen Society. Mrs. Orth. and Mrs. Cullen, of Baltimore, were entertained at dinner and at the theatre during the evening by Dr. and Mrs. George C. Stout. One of the chief reasons for the visit of Professor Orth and Professor Escherich to Philadelphia was to inspect the specimens of tuberculous disease and the work done by Dr. Mazyck P. Ravenel in the laboratory of the State Live Stock Sanitary Board.

GENERAL

The Pontiac, Mich., Medical Society has elected Dr. William McCarroll president.

Ohio Medical College, of Cincinnati.—Dr. Albert V. Phelps was elected secretary of this institution on September 24th.

The Baptist Hospital of Chicago has received a bequest of $2,000 by the will of the late Mrs. Elizabeth G. Kelly.

Dr. J. Bergen Ogden, 419 Boylston Street, Boston, has been appointed medical chemist to the Carney Hospital, South Boston, Mass.

A New Hospital for Menominee, Mich.—The Sisters of the Order of St. Francis have decided to erect a $30,000 hospital building in Menominee. The structure will go up on the site of the present St. Joseph's institution.

Disease in Buffalo.—The recent scarlet fever epidemic in Buffalo is said to be under control, but typhoid fever has increased greatly, eighteen cases having been reported during the last few days.

The Iroquois Memorial Association, of Chicago, has received $1,800.00, subscribed by the children of the city, to help purchase the site of the ill fated theatre for an emergency hospital. If the entire amount required is not soon raised, a music hall will probably be erected instead.

New Annex to Macon, Ga., Hospital, Completed.—Another annex has been completed for the city hospital, and now Macon boasts that there is not in the State a hospital with more space for patients. It is claimed by some that no hospital in Georgia is better equipped for the work it has in hand.

Bequests of Mrs. Sarah Potter, of Boston.—The late Mrs. Sarah Potter bequeathed $150,000 to the Boston Medical Library; $50,000 each to the Hospital Cottages for Children at Baldwinsville, the Free Hospital for Women at Brookline, and the Massachusetts College of Pharmacy; and $30,000 to St. Luke's Hospital in New Bedford.

Distinguished Recruit to the Ranks of Women Physicians.—Mrs. Ella Scarlett Synge is the latest recruit to the small army of women physicians. She is the daughter of Lady Abinger, the daughter of Commodore Magruder, United States Navy. Mrs. Synge has had considerable and varied experience in Cape Colony, and now purposes to start practice in London.

The Study of Modern Greek.—Professor G. Debalé, of the University of Liège, together with a number of other university professors of Europe and America, is taking up the propaganda for modern Greek as the international language of scholars. The president of the California University, Professor Wheeler, has established a course of modern Greek, intrusting the class to Professor Albert Putzker. The study of modern Greek is progressing in England, not only among the young men, but also among young ladies at college.

The Hartford Hospital to Get $500,000.—It has been learned that by the will of Miss Maria Terry, who died at Venice a month ago the Hartford Hospital will receive approximately $500,000. A director of the hospital, when asked to confirm the report, said that the institution had been remembered by Miss Terry, and he thought the bequest would amount to about $500,000. Miss Terry, who was a daughter of the late Oliver G. Terry, president of the Ætna National Bank, lived in Hartford until a few years ago, when she began travelling abroad. She was forty years old.

British Physician Dined.—Sir Felix Semon, physician extraordinary to King Edward VII. of England. was the guest of honor at a dinner given at the Chicago Club on September 15th. The guest was entertained by the Chicago Laryngological Association. Forty members of the association were present. Sir Felix was in Chicago en route to St. Louis, where he was to make an address at the international congress of arts and sciences. While Sir Felix was entertained at dinner Lady Semon was a guest of Mrs. A. C. Klebs. 147 Pine Street, at a theatre party.

Evening Office Hours in Schenectady.—It is said that the physicians of Schenectady, N. Y., have made an agreement to close their offices at 8 p. m. They have been accustomed to treat office patients until nine o'clock, but found that they were thus precluded from enjoying the evening socially when so inclined.

Projected Hospital for Gouverneur, N. Y.—Realizing the imperative need of a place where the poor may be properly cared for in time of sickness, and where the victims of casualties and accidents may be promptly taken for operations and treatment, the Shakespeare Club of Gouverneur, an organization composed of 17 prominent and influential women of the village, has taken the initial step in an effort to establish and maintain a public hospital.

The Boston Emergency and General Hospital, 142 Kingston Street, was founded July 3, 1891. During the first year 16,000 medical and surgical cases were taken care of at this hospital. This number has increased year after year, until in 1903 the number reached 70,000. The business and wants of the hospital necessitated either a new building or an extension and remodeling of the original structure. Extensive improvements and additions have been made under the direction of Dr. George W. Galvin, and the hospital, enlarged in all departments, is now nearly ready for occupancy. The new hospital, which is on the same site as the old one, was opened about October 1st, as an emergency and general hospital, and added three new departments, an optical department, a dental department, and a surgical supplies department. The new building is of brick, four stories and basement, lighted by both gas and electricity, has perfect ventilation, and all modern improvements. The dimensions of the building are about 100 feet by 35 feet, and the floor space of each floor is about 3,500 feet, making a total area of nearly one half acre.

Statement of Mortality in Chicago, Ill., for the Week Ending October 1, 1904, compared with the preceding week and with the corresponding week of 1903. Death rates computed on United States Census Bureau's estimated midyear populations of 1,932,315 for 1904 and of 1,873,880 for 1903:

	Oct. 1. 1904.	Sept. 24, 1904	Oct. 3. 1903.
Total deaths, all causes	477	457	467
Annual death rate per 1,000	12.61	12.36	12.99
By sexes—			
Males	276	257	274
Females	200	200	193
By ages—			
Under 1 year	123	109	96
Between 1 and 5 years	30	35	33
Over 60 years	96	84	96
Important causes of death—			
Acute intestinal diseases	82	81	51
Apoplexy	15	10	10
Bright's disease	29	34	46
Bronchitis	10	4	6
Consumption	44	63	55
Cancer	16	18	32
Convulsions	14	7	5
Diphtheria	5	7	8
Heart diseases	35	36	32
Influenza	..	..	..
Measles	..	..	1
Nervous diseases	16	19	30
Pneumonia	40	32	29
Scarlet fever	1	..	..
Suicide	7	5	9
Smallpox	3	2	..
Typhoid fever	9	7	16
Violence (other than suicide)	35	37	29
Whooping cough	1	3	1
All other causes	115	92	107

To Manage the New Methodists' Hospital in Indianapolis.—Ex-Chancellor C. N. Sims, of Syracuse University, who has just retired from the pastorate of the First Methodist Episcopal Church and from the ministry, has announced there that he would go at once to Indianapolis to have charge of a $1,000,000 hospital now being erected by the Methodists of Indiana. The foundations of several buildings have now been laid. At the outset it is announced that between $300,000 and $500,000 will be expended. It was thought that Dr. Sims proposed to retire to his farm in Indiana, and the announcement to the contrary comes as a surprise.

The Resignation of a Young Naval Medical Officer Refused.—The Secretary of the Navy has refused to accept the resignation of a medical officer of the service who was regarded as having served an insufficient period after his appointment. The officer found that he did not like the navy, and immediately following the course of instruction in the naval medical school in Washington he submitted his resignation before he had been assigned to active duty. The officials held that an officer who accepted appointment and availed himself of the advantages of special instruction should make some return for the benefits he had enjoyed. In accordance with this policy, the junior medical officer was advised that he must serve during at least one cruise before his resignation could be considered.

September a Healthy Month in Chicago.—September, 1904, takes its place in the vital statistics of the city as that of the lowest September mortality on record. Its total of 1,935 deaths from all causes represents an annual rate of 12.33 per cent. of the population. The lowest previous rate for the month was that of September, 1903, when the rate was 13.42 per 1,000, or 8 per cent. higher, while the average September rate for the previous decade was 15.40 per thousand, or very nearly 20 per cent. (19.9) higher. Compared with the corresponding month of last year there were 41 more deaths from the acute intestinal diseases, but 46 fewer from typhoid fever; deaths from consumption, 223, were exactly the same in each month, while there were 4 more deaths from pneumonia. Among other important causes of death there were fewer from Bright's disease, 11; bronchitis and cancer, 8 each; diphtheria, 26; nervous diseases, 20; scarlet fever, 3; suicide, 7; measles and whooping cough, 2 each. There were 7 deaths from smallpox this September and only 1 in September last year and 26 more from violence other than suicide.

Dr. George F. Butler has severed his connection with the Alma Springs Sanitarium, at Alma, Mich., where for nearly five years he has been medical superintendent, and has returned to Chicago, where he will henceforth limit his practice to internal medicine. He will fill the chairs of professor of therapeutics in the College of Physicians and Surgeons, and professor of medicine in the Dearborn Medical College; he has also been appointed as one of the attending physicians in the Samaritan Hospital. Dr. Butler will continue to edit and publish his magazine, *How to Live*, and it is understood that he has under way another medical work for a Philadelphia medical book publisher.

Memorial Tablet to Dr. J. W. Lazear.—A tablet to the late Dr. Jesse William Lazear, who died while engaged in the work of the United States Yellow Fever Commission at Quemados, Cuba, was unveiled at the opening on October 5th of the new surgical building of the Johns Hopkins Hospital. Three addresses were made—one in memory of Dr. Lazear, delivered by Dr. James Carroll, contract surgeon, United States Army, and the others by Professor Clifford Allbutt, F. R. S., University of Cambridge, and Professor Lewis A. Stimpson, of New York.

The Hospital College of Medicine, Louisville, Ky., graduated the following on July 1st:

Omar G. Blankenbaker, of Indiana; James Arthur Kirk, of Kentucky; Clyde Clement Carroll, of Kentucky; James Grant Hutchinson, of Kentucky; Jesse S. Bean, of Kentucky; Columbus Iloff Harris, of Kentucky; Angus D. McEachen, of Nova Scotia; Emil John Doll, of Kentucky; William Roy Elgin, of Kentucky; George Ernest Hart, of Kentucky; Christoph Gottlieb Schott, of Germany; A. Chenoweth Larkin Percifal, of Kentucky; John Marcus Blades, of Kentucky; Almon Herbert Ballenbach, of Minnesota; Paul Everett Cail, of Missouri; Edwin Milton, of Land, Ind.; Alexander Cameron Brown, of Kentucky; Robert C. Jett Perceful, of Kentucky; Zedock Fowler Atwell, of Ohio; John Reuben Baker, of Kentucky; Frank Lee Van Alstine, of Texas; William Lee Tyler, of Kentucky; Young Pepper, of Kentucky; Charles A. Johnson, of Kentucky; William Carl Grant, of Kentucky; Walter Alonzo Hall, of Indiana; Gayle Lee Sarlls, of Kentucky; Francis Marian Payne, of Indiana; Paschal Young Pursifull, of Kentucky; George Bouldin DeTar, of Indiana; Jacob Lewis Taylor, of Indiana; James Bennett, of Mississippi; John Paul Keith, of Kentucky; Casabianca C. Wheeler, of Kentucky; William Lester Hawley, of Indiana; John Henry Rice, of Kentucky; James Ernest Fox, of Kentucky; Augustus Davis, of Kentucky; Lynn David Adams, of Kentucky; Walter William Leslie, of Kentucky; Burgoyne Harberson Gibson, of Virginia; Robert L. Mercer, of Kentucky; Charles Edgar Johnson, of Virginia; Henry Lewis Hille, of Kentucky; William M. Cullen Bryant, of Kentucky; Hiram Farley, of West Virginia; Ancil Adams Richardson, of Kentucky; Lafayette F. Wagner, of Kentucky; Thomas Rowan Howell, of Kentucky; Samuel William Weinberg, of Kentucky; W. Hammond Ashby, of Kentucky; Jefferson Davis Motheral, of Texas; John Hodges, of Illinois; Frank C. Coffield, of Kentucky; Charles John Luedemann, of Indiana; Ovid Victor Burnett, of North Carolina; William Polk Longmire, of Tennessee; John A. Sandbach, of Kentucky; Otis Elmer Senour, of Kentucky; William Evans Wisdom, of Texas; Charles Thomas McGregor, of Texas; Fidella Edwards, of Kentucky; John Lewis Corum, of Kentucky; Lewis Clifton Bolton, of Kentucky; Frank W. Baylor, of Indiana; Virgil Andrew Lovelace, of Kentucky; William Daniel Chase, of Tennessee; Virgil O. Standish, of Indiana; Carl Brent Witt, of Kentucky; Edgar Duff Burnett, of Kentucky; Jesse Pinckney Williams, of Missouri; James Garfield Slater, of Kentucky; Charles Porter Moseby, of Mississippi; Edmond Wallace Wood, of Arkansas; James A. Duff, of Kentucky; Ira Houston Vincent, of Missouri; Teets B. Quirey, of Kentucky; Lewis Abraham Oates, of Kentucky; Thomas Gayle Connell, of Kentucky; Joseph Wynne Nolan, of Kentucky; William F. Hickle, of Kentucky; James Edward Davis, of Tennessee; Llewellyn Franklin Heath, of Kentucky; Winfield Scott Allphin, of Kentucky; Tilden Hendricks Singleton, of Kentucky; Curtes Louis Hancock, of Kentucky; John Gilmore Owsley, of Kentucky; William David Laswell, of Kentucky; William Henry Moore, of Kentucky; Ernest M. Ellaby, of Kentucky; Henry Shackleford Keller, of Indian Territory; Algernon Sidney Walker, of Kentucky; John Gilmer Reynolds, of Virginia; John R. Corum, of Kentucky; James Monroe Venters, of Kentucky; Walker Owens, of Kentucky; E. C. Underwood, of Kentucky; R. E. Jones, of Illinois. Postgraduates—James Harrison Word, of Louisiana; C. A. Niles, of Kentucky.

Pith of Current Literature.

PRESSE MEDICALE.

September 14, 1904.

1. The Neurofibrilli After the Method of Ramon y Cajal, By Azoulay.
2. The So Called Nascent State in Substances Used in Therapy, By Labbé.
3. Phosphoric Acid. Its Harmlessness. Its Principal Therapeutic Indications, By Cautru.

2. **The Nascent State.**—Labbé considers this phrase to be somewhat of a fetish, as he says all drugs acting in a new environment are in reality nascent. Any drug in the stomach or intestine, an entirely new medium to it, acts in the nascent state.

3. **Phosphoric Acid.**—Cautru considers this acid to be superior to all other acids used in therapy, as being a constituent of the tissues, and as supplementing a too great daily loss of phosphates through the urine and fæces. Phosphorus is lost to the system by brain work, infection, chronic dyspepsia, or almost any physiological disturbance, and as pure phosphorus is administered with difficulty, and the phosphates with doubtful results, there remains only the acid as a safe vehicle for the necessary phosphorus. Experiments on ducks, rabbits, guinea pigs, dogs, and horses have shown that phosphoric acid is quite innocuous. When given well diluted, its action on the human organism is seldom caustic and when it is, the action may be easily counteracted by alkalies. It is contraindicated only in advanced nephritis, hepatic sclerosis, gastritis and enteritis, and gout. In the latter it may be used, if cautiously advanced in dose. In neurasthenia, hysteria, pregnancy, chlorosis, dyspepsia, rheumatism, and the various cachexias, the writer has obtained remarkable results with phosphoric acid.

September 17, 1904.

1. Abdominal Hysterectomy for Fibromata, By Roussel.
2. Adiposis Dolorosa, By Delucq and Alaux.
3. Dysenteric Anasarca and Retention of Chlorides, By Remlinger.

2. **Adiposis Dolorosa.**—Delucq and Alaux discuss a case of this affection, otherwise known as Dercum's disease, which has come under their observation. The disease is rare, only 42 cases having been described since Dercum, in 1888, first mentioned it. The writers' case occurred in a woman, aged 61 years, who, with an apparently unimportant family history, dates her troubles from a fall from a chair many years before the disease became manifest. The left eye became blind, and the left side of the nose developed a tumor. The adiposis appeared in her thirtieth year in the right leg, first, and then in the left. The arms were next attacked. Pain accompanied all the early symptoms. When examined, the patient's neck and the subclavicular region, as well as the abdomen, besides the limbs, were loaded with fat. An enormous fatty tumor was also present on the internal aspect of the left thigh. The buttocks were immense. The pores of the skin were enlarged. Pain, lasting two or three days, in the fatty region, was not uncommon. Sen-

sation and temperature were normal; the corneal reflex was absent, as well as the patellar and Achilles. Mentality was apparently normal, but there was great asthenia, increasing with age. In view of the eye trouble and the nasal tumor, the writers are inclined to attribute the ætiology of the disease to some affection of the pituitary body. Thyreoid extract, strychnine, arsenic, and sodium salicylate having been tried in this case without result, the writers are having prepared a glycerized extract of the pituitary body with a view of trying opotherapy.

3. **Dysenteric Anasarca.**—Remlinger says but little has been written on this subject, although he has seen several cases of anasarca following dysentery when there was no trace of albumin in the urine. Milk diet and digitaline brought about a rapid cure and no relapse occurred under subsequent full diet, which fact excluded nephritis. Remlinger has decided that the administration of sodium sulphate, given to check the dysentery, was the cause of non-elimination of chlorides in these cases and hence, according to recent theories, also the cause of anasarca.

SEMAINE MEDICALE.

September 7, 1904.

Talalgia and Its Surgical Treatment, By VINCENT.

Talalgia.—Vincent, who is a surgeon in Algiers, states that he has seen 9 cases of this painful disease of the heel in the last few years, and has observed that no purely medical treatment seems to give relief. In all three forms of the disease he has found that a simple operation with merely local anæsthesia is invariably curative. He cuts down through the bursa, after applying an Esmarch bandage, curettes away anything found between the skin and the fibrous covering of the calcaneum, lacerates the fibrous coat itself, and, after suturing the skin, finds that he obtains union by first intention.

ZENTRALBLATT FUER GYNAEKOLOGIE.

August 27, 1904.

1. Acute Yellow Atrophy of the Liver in the Puerperium, By R. COHN.
2. Vaginal Cæsarean Section for Eclampsia, By G. W. MALY.
3. Convulsions in Nephrectomized Rabbits, By B. WOLFF.
4. Rapid Dilatation of the Cervix, By V. FROMMER.

1. **Acute Yellow Atrophy of the Liver.**—Cohn reports the case of a multipara who was seized with a high fever on the fifth day of the puerperium. There was some improvement, but in the sixth week, jaundice developed and the patient died in coma. The autopsy showed a typical acute yellow atrophy of the liver, and thrombosis of the vena cava inferior, the right portal vein, and both spermatic veins.

3. **Convulsions in Nephrectomized Rabbits.**—Wolff's experiments being different conclusions than Blumreich's. The latter noted invariable convulsions in rabbits whose kidneys he had removed, while Wolff, performing his experiments in precisely the same manner, saw them only exceptionally. The author ventures no opinion as to the difference in results.

September 10, 1904.

1. Forced Delivery in Eclampsia, By F. KERMAUNER.
2. Vaginal Cæsarean Section in Eclampsia, By HAMMERSCHLAG.
3. Lateral Pelvic Section (Gigli), By E. FERRONI.
4. Sounding of the Tubes and Uterine Perforation, By W. THORN.

1. **Forcible Delivery in Eclampsia.**—Kermauner records several cases of eclampsia from von Rosthorn's clinic in Heidelberg, which were conservatively treated and which resulted in recovery for the mother with a living child. The treatment was the usual one of hot baths and hot packs to promote diaphoresis, subcutaneous saline infusions in severe cases, and venesection when the cyanosis was marked. He cites cases in which convulsive seizures with a lethal outcome followed emptying of the uterus, and points to the eclamptic convulsions seen only postpartum as further evidence of the value of conservative treatment. Series of cases are not always identical, and one group will die while another will recover under any or no treatment. We have by no means solved the question of eclampsia, Kermauner states, and each individual case must be treated as the patient's condition and the circumstances dictate. Conservative treatment has as many triumphs as radical measures can boast.

2. **Vaginal Cæsarean Section in Eclampsia**—Hammerschlag has collected twenty-one cases of eclampsia treated by vaginal Cæsarean section, with nine deaths. He reports a successful case of his own. In his epicritical remarks, he says that he urges immediate delivery in all cases in which the cervix is dilated or easily dilatable; version, extraction, forceps, or perforation with cranioclasis terminates the delivery. If the delivery cannot be thus easily accomplished, the milder cases are treated by diaphoresis—hot packs, subcutaneous saline infusions—and by the administration of morphine and chloral, awaiting delivery at a more favorable moment. In cases of medium severity, metreurysis with a possible combined version is undertaken to hasten birth. In severe cases, in which one attack follows another, and coma appears early with the pulse constantly deteriorating in quality, Bossi's dilator is used in multiparous women if they have not a rigid cervix, while vaginal Cæsarean section is performed in primiparæ and in all women with rigid cervices.

September 17, 1904.

1. Eclampsia in the Fifth Month of an Hydatid Pregnancy, By F. HITSCHMANN.
2. Instrumental Termination of Abortion, By R. VON BRAUN-FERNWALD.
3. A New Operating Table, By HARTOG.

1. **Eclampsia in Hydatid Pregnancy.**—Hitschmann publishes a unique case from Schauta's clinic of a young secundipara in the fifth month of an hydatid pregnancy who developed eclamptic attacks and who recovered after forcible delivery. The case is remarkable, too, for the striking proof it offers for the arising of an eclampsia in the entire

absence of fœtal metabolism. It would seem, that in this case, says the author, we are bound to attribute the eclampsia to the peripheral portions of the ovum, especially the few remnants of placenta which were left after the pregnancy had degenerated. The author, while he questions Veit's recent theory of the deportation of parts of the chorion into the mother's blood and the formation there of a syncytiolysin, nevertheless regards the consideration of the peripheral fœtal elements as the source of eclamptic intoxication, as a great step forward in the explanation of the intoxications of pregnancy. The case reported offers an important corroboration, at least, of this theory. The author calls attention to the frequency of coincidence of hydatid pregnancy and albuminuria and cites Veit's observation of the appearance of albuminuria after the experimental injection of placental masses. Possibly, he argues, there is some relation between the two which has not yet been discovered.

2. **Instrumental Termination of Abortion.**—Von Braun-Fernwald reiterates his position in affirming that abortions, as far as possible, should be terminated by means of tampons which stimulate uterine contraction and cause the uterus to empty itself spontaneously. He urges the use of the finger to the greatest possible extent, asserting that instruments in the hands of the unskilful are far more dangerous, and cites the numerous instances of perforation of the uterus and the drawing down and cutting off of intestine as examples. The induction of abortion should always be performed by one specially skilled in the use of the necessary instruments. The author himself uses for this purpose Hegar's dilators and Schultze's spoonforceps.

RIFORMA MEDICA.

August 3, 1904.

1. Leucoanæmia in a Patient with Malaria, By A. Zeri.
2. A Contribution to the Pathological Anatomy of the Pancreas, By G. Ghedini.
3. Pellagra and the Paragangline of Vassale, By A. Campani.

1. **Leucoanæmia in Malaria.**—Zeri describes the case of a malarial patient who presented the characteristics of leucoanæmia. This term was applied in 1901 by Leube, who defines leucoanæmia as a grave disease of the blood characterized by changes in the process of development of both the white and the red blood cells. It is, in other words, a mixture of pernicious anæmia and of leucæmia. The case reported occurred in a young man aged 18 years who had suffered from malaria for two years. The blood showed all the signs of a pernicious anæmia, together with an increased number of leucocytes, particularly of the polynuclear variety, and many medullary cells. The relation between the red and white cells was as 1:62. The leucoanæmia was extremely variable, because after seven or eight days the nucleated red cells disappeared, the number of the red cells was increased by a million, and the amount of hæmoglobin was increased. The leucocytes diminished in numbers, but did not reach the normal, and altogether the patient improved steadily until he was discharged cured two months later.

2. **Pathology of the Pancreas.**—Ghedini reports the results of his observations on 200 pancreases removed from cadavers, in which he found degenerated, inflammatory, circulatory, and neoformative changes. In four cases of diabetes his observations coincided with those of Hansemann, Lawrence, and others, who found atrophic changes throughout this organ. His findings did not agree, however, with those of Opie, Massari, and others who claimed that the characteristic changes in the pancreas of diabetics were found in the islands of Langerhans. He admits having found the changes in the islands of Langerhans described by these authors, but he also found the same changes in various other diseases, and, in addition, he was able to find frequently that the entire gland was atrophied. He believes that the lesions of the islands are derived from a general lesion of the entire gland.

GAZZETTA DEGLI OSPEDALI E DELLE CLINICHE.

July 31, 1904.

1. A Method of Nephropexy Involving the Passage of the Periosteum of the Resected Twelfth Rib to the Kidney, By Carlo Mariani.
2. A New Instrument for Craniotomy Intended as a Substitute for Braun's Cranioclast, By Luigi Conti.
3. On the Blue Staining Red Cells in Anæmia, By A. Germani.

1. **A New Method of Nephropexy.**—Mariani offers a preliminary note on a new method of fixing the kidney in position. He says that the conditions to be fulfilled by a successful fixation are four in number: (1) The kidney must be fixed as much as possible in its natural position; (2) the means of support must be composed of living tissues and not of extraneous material; (3) the means of support must be as inelastic as possible, and (4) the fixation must be so executed that the kidney may be able to move as it normally moves, with the pressure of the surrounding viscera, especially with the excursions of the diaphragm, and that it may resist shocks transmitted through the feet, etc., as in jumping. He objects on principle to the methods hitherto used, because they employ extraneous substances as means of support. His plan, which was tried on four dogs, is to make an incision along the twelfth rib; to detach the latter completely from all muscles up to the sacrolumbar mass; to remove the periosteum carefully from this rib and to resect the latter at about four centimetres away from the costotransverse articulation. This leaves a thick cord formed of the twisted periosteum, which varies in length according to the length of the twelfth rib, but is usually eight centimetres long in man. The kidney is now exposed, freed of fat, and the periosteal cord is passed through the cortical substance with the least possible injury to the parenchyma and the capsule. This is done by perforating the kidney by means of trocar of medium calibre in a direction parallel to that of the twelfth rib and a few millimetres beneath the capsule. The periosteal cord is then drawn through the cannula by means of a thread. The end of this cord is sutured to the

muscles of the eleventh intercostal space. The experiments in all the dogs were successful and in no case did bone form in the tract of the periosteum.

2. **A New Cranioclast.**—Conti describes a new instrument which is called a cranial extensor, and which is intended to replace the well known instrument of Braun. The instrument is so contrived that in addition to perforating the skull it gives a firm grip upon the fœtal head and enables the operator to extend it, and to remove it in the most advantageous manner. For the present the instrument has only a theoretical value, as it has not been employed extensively in practice.

3. **Blue Staining Red Cells in Anæmia.**—Germani concludes from an experimental study of red cells which stain with methylene blue in certain anæmias: (1) The presence of red cells which stain al fresco with methylene blue is always pathological, (2) they are encountered in all cases of grave primary anæmias, such as chlorosis, progressive pernicious anæmia, primary splenic anæmia, and severe anæmias due to bleeding, as well as in all diseases which profoundly alter the state of the blood. The severity of the anæmia is in direct proportion to the number of corpuscles which stain evenly and the number of cells which are partially stained indicate that the affection approaches recovery. This has been observed in all the cases studied by the author. (3) The red corpuscles which stain with methylene blue are nothing but immature young cells, and therefore their number is very variable.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

October 1, 1904.

1. Pleural Effusions in Heart Disease, By J. DUTTON STEELE.
2. Prolonged Delirium in Pericarditis and Endocarditis. Report of a Case, By EDGAR MOORE GREEN.
3. The Limitation of Digitalis in Mitral and Aortic Regurgitation, By FRANK JONES.
4. Some Points in the Acoustics of Respiration, By CHARLES E. QUIMBY.
5. Intracranial Neurectomy for Trigeminal Neuralgia. Cases and Comments, By HARRY M. SHERMAN.
6. Physiological Extirpation of the Ganglion of Gasser. Further Report on the Division of the Sensory Root for Tic Douloureux Based on the Observations of Four Cases, By CHARLES H. FRAZIER, and WILLIAM G. SPILLER.
7. Osmic Acid Injections for the Relief of Trifacial Neuralgia, By JOHN B. MURPHY.
8. Blood Pressure and Pulse Rate, as Influenced by Different Positions of the Body, By O. Z. STEPHENS.
9. Treatment of Fractures of the Patella by Lateral Sutures, By JOSEPH A. BLAKE.
10. The Ætiology of Hay Fever. The Relation of the Chemistry of the Saliva and the Nasal Secretions to Diseases of the Mucous Membranes of the Mouth and Upper Respiratory Tract, By D. BRANDEN KYLE.
11. Poisoning by Wood Alcohol. Cases of Death and Blindness from Columbian Spirits and Other Methylated Preparations (*To be continued*), By CASEY A. WOOD, and FRANK BULLER.
12. Fatal Poisoning Due to Skin Absorption of Liquid Shoe Blacking (Nitrobenzol). With Autopsy Report, By WILLARD J. STONE.
13. Splenectomy for Splenic Anæmia, By J. H. CARSTENS.
14. X Ray Therapy in Leucæmia. A Preliminary Report. With Special Reference to Lymphatic Leucæmia, By JOSEPH A. CAPPS, and JOSEPH F. SMITH.

1 and 2.—See this *Journal,* Vol. LXXIX, page 1260.

3 and 4.—See this *Journal,* Vol. LXXIX, page 1261.

5, 6, and 7.—See this *Journal,* Vol. LXXX, page 83.

9.—See this *Journal,* Vol. LXXX, page 86.

12. **Poisoning by Liquid Shoe Blacking.**—Stone's case of poisoning occurred in the following curious manner: "The young man had purchased, a few days before his death, a pair of shoes at a sale being advertised in the city. These shoes were black patent leather lowers with cloth tan tops. On the evening of the dance above mentioned he had applied a liquid shoe blacking, made in Chicago, to the tan cloth uppers of the shoes. These shoes were worn that evening. The cloth upper absorbed enough of the blacking to entirely cover up the tan color, and, moreover, since the shoes were put on before the tops were dry, to stain his feet and ankles black." Nitrobenzol, to the action of which the man's death was due, is used extensively in the manufacture of shoe blacking.

13. **Splenic Anæmia.**—Carstens summarizes his paper thus: (1) Splenic anæmia is a distinct variety of enlargement of the spleen. (2) It can be diagnosticated by blood count, which shows an abnormal and small number of leucocytes. It is, as a rule, slow in its development, and is but slightly relieved or retarded by treatment. (3) Splenectomy seems to offer the only chance for a permanent cure.

BOSTON MEDICAL AND SURGICAL JOURNAL.

September 29, 1904.

1. Disease of the Myocardium, By HENRY JACKSON.
2. Abscess of the Liver Following Abdominal Infections, with a Report of Four Cases, By DANIEL FISKE JONES.
3. Conclusions from a Series of Measurements of Blood Pressure in Fevers, Before, During, and After the Administration of Strychnine, By RICHARD C. CABOT.
4. Examination of Pleural Fluids with Reference to Their Ætiology and Diagnostic Value (*Continued*), By PERCY MUSGRAVE.

1. **Disease of the Myocardium.**—Jackson notes that while textbooks devote much space to valvular disease of the heart, disease of the myocardium is dismissed with a few words. This one sided study is unfortunate, for little can be done for the valvular conditions in themselves. It is only when the myocardium becomes involved that the victims of endocarditis begin to suffer. Besides post mortem records show that valvular disease of the heart is found in only about one half of the cases of "heart disease." Hence the importance of studying the myocardium. The author reviews the various signs and symptoms which should call attention to the myocardium. Seven kinds of myocarditis are noted by the author.

2. **Abscess of the Liver.**—Jones has collected 114 cases of abscess of the liver following abdominal infection. Of the four personal cases reported two were undoubtedly the result of appendicitis; one was possibly the result of appendicitis, though there was no definite proof of this; and one was the result of an abscess in the region of the pylorus (probably a perforated gastric ulcer). Two of these cases were fatal, in two the patients recovered. These abscesses are nearly always multiple so that there may be room for difference of opinion as to the abvisability of operative intervention. If operation is decided upon one of two general plans of procedure may be followed. The liver may be approached by the abdominal route or by the transpleural route. Generally the author would prefer this last method. Aspiration for diagnostic purposes should not be encouraged.

3. **Blood Pressure in Fevers.**—Cabot studied fifty cases of fever in order to determine if possible the effect of strychnine on the blood pressure in febrile conditions. His report consists of nine formal conclusions. Two of these are: "(2) In 32 cases the strychnine was given by mouth and in 18 subcutaneously. The total daily dose was usually ⅛ gr., sometimes ⅙ gr. Except in a few instances, the diet and position of the patient remained the same throughout the experiment. (6) The total result is negative. I have been unable to convince myself that strychnine exerts any influence upon the blood pressure of febrile cases when given in the manner and dose mentioned."

MEDICAL NEWS.

October 1, 1904.

1. A Case of Tumor of the Spinal Cord, By George Woolsey.
2. The Need of Efficient Public Health Work in the Suburbs, By George A. Soper.
3. A Contribution to Cytodiagnosis in Pleural Effusions, with Especial Reference to the Tuberculous Form, By Herbert Swift Carter.
4. An Analysis of Forty-two Cases of Venous Thrombosis Occurring in the Course of Typhoid Fever, By W. S. Thayer
5. The Treatment of Simple Rectal Fistula by Excision and Suture Without Cutting the External Sphincter Muscle, By Howard A. Kelly.
6. Observations on the Blood and Circulation in Uncinariasis, By W. G. Harrison.
7. Our Aims, By S. J. Meltzer.
8. Report of a Case of Obstinate Phosphatic Diathesis Cured by Systematic Dilatations of the Posterior Urethra, By George Theodore Mundorff.

1. **Tumor of the Spinal Cord.**—Woolsey reports a case of tumor of the cervical region of the spinal cord which was successfully diagnosticated, localized, and removed at operation. The new growth was an endothelioma and was found adherent to the inner surface of the dura. The paper deals principally with the surgical aspect of such cases and sets forth the author's ideas as to the best ways of operating upon the spinal column and its contents.

3. **Cytodiagnosis.**—Carter reports the results obtained from examining the fluid from forty-one cases of pleural effusion. The following tentative conclusions are announced: (1) A true pleural effusion has a specific gravity over 1010, with an average of about 1017.9; a high fibrin and albumin content. (2) A pleural transudate has a low specific gravity, with an average of about 1008; a small fibrin and albumin content. (3) An almost certain diagnosis of tuberculous pleurisy can be made by the morphological examination of the fluid alone, and rests on its having a high specific gravity—1012 to 1024, average, 1018.6; a large amount of fibrin and albumin, with an accompanying lymphocytosis. There is usually a considerable rise of temperature at the outset, which may average 103.4° F. (4) According to some authorities, one may find a polymorphonuclear leucocytosis before the third or fourth day of a tuberculous pleurisy; in which case, subsequent examinations will be necessary to establish a positive diagnosis. (5) A diagnosis of postpneumonic serous effusion lies in its high specific gravity, averaging 1016.5; large fibrin and albumin content, with a polymorphonuclear leucocytosis, 58 to 92.5 per cent., averaging 71.7 per cent. The temperature is usually much lower than in the tuberculous cases, unless complicating an active pneumonia, averaging at the outset about 101° F. (6) An accurate diagnosis between a pleural transudate and a tuberculous pleurisy cannot rest alone on a differential cell count, as they both show a lymphocytosis, but must rest on a more complete examination, including the specific gravity and the amount of fibrin and albumin.

4. **Venous Thrombosis in Typhoid Fever.**—Thayer says that at Johns Hopkins, venous thrombosis as a complication of typhoid fever has been observed in 2.6 per cent. of all cases. An analysis of the forty-two cases studied by the author warrants the following conclusions: "(1) In 42 cases of typhoid thrombosis the onset occurred almost invariably in the third week or later. (2) Local pain and fever were usually the first symptoms. The fever sometimes preceded the localizing symptoms. (3) In 28.2 per cent. of our venous thrombosis occurring in connection with typhoid fever there were chills. In several instances the chill preceded the appearance of localizing symptoms. In the past two years I have seen in consultation three further cases in which otherwise unaccountable chills during convalescence from typhoid fever, were followed by a complicating thrombosis. (4) Venous thrombosis in typhoid fever is usually associated with an increase in the number of leucocytes. . . . (5) The thrombosis is commonest in the lower extremities, especially on the left side. The femoral vein is involved with particular frequency. (6) In the event of a sudden severe pain in the lower part of the abdomen coming on during the latter part of typhoid fever and associated with a leucocytosis, the possibility of iliac thrombosis should always be considered. (7) Venous thrombosis in a lower extremity is always a serious complication of typhoid fever. Although the immediate danger is not great the after results are often grave. . . . (8) In thrombosis of the

femoral vein a greater or less part of the blood from the affected extremity is often carried up by the iliac vein of the opposite side, the current crossing the abdomen through anastomosis in the hypogastrium, resulting in a characteristic triangular area of varicose veins.

6. **Uncinariasis.** — Harrison reports three cases of uncinariasis on which careful study of the blood and circulation in this disease was made. From a study of these cases and a few others the following deductions are drawn: (1) Uncinariasis through its extreme anæmia exerts a most marked influence on the heart, causing apparent increase in size (most likely dilatation), heaving pulsations, relative insufficiency, thrill and murmurs. (2) While these conditions may be accompanied by an accentuation of the pulmonic second sound, nevertheless they rapidly disappear when the cause of anæmia is removed, and by slow degrees the accentuation is likewise obliterated. (3) The murmurs are mostly aortic, soft and blowing, and are both systolic and diastolic. (4) The fact that the area of heart dulness seems to diminish perceptibly after the relief of the anæmia, suggest dilatation. (5) The blood cell changes are not specially significant. (6) No megaloblasts were found in these cases, as has been the rule in previous work. (7) The rise of blood pressure beginning immediately upon removal of the cause is a safe index of the returning strength of the heart.

AMERICAN MEDICINE.

October 1, 1904.

1. The Advantages of Combining Various Modern Methods in the Radical Cure of Hernia and the Use of Local Anæsthesia, By MARTIN B. TINKER.
2. Atypical Cases and Dust Infection, and Preliminary Description of Dust Disease, By ROBERT HESSLER.
3. Total Coloboma of the Optic Disc Without Affection of the Chorioid: Total Irideremia; Ectropion Uvea; and Retained Pupillary Membrane, By BURTON CHANCE.
4. Ethyl Chloride as a General Anæsthetic, By A. B. CRAIG.
5. Treatment of Chronic Suppurative Otitis Media, By J. G. HUIZINGA.
6. The Present Status of the Ætiology of Malignant Growths, By RAYMOND WALLACE.

1. **Hernia.**—Tinker favors the operative treatment of hernia for practically all cases. He does not consider that it is desirable to use one form of operation exclusively, but believes that by combining certain of the features of the best known operations the individual requirements of any specific case can be met. It is always of importance to transplant the neck of the sac to behind the internal oblique muscle. A nearly ideal method of operating would result if we should combine Ferguson's method of closure with the imbrication, overlapping method of Andrews, with excision of the veins of the cord, as suggested by Bloodgood; transplantation of the rectus muscle, as suggested by Wölfler, and transplantation of the neck of the sac behind the internal oblique. The author urges performing herniotomies, specially in the aged, under local anæsthesia. The risk to life is reduced, and the absence of vomiting and freedom from complicating pneumonia are secondary but important advantages.

2. **Dust Infection.**—Hessler believes that dust, by its mechanical irritation and contamination with sputum, free from specific germs, is capable of producing a definite disease. A number of cases are reported. The author's views may be gathered from the following quotation: "By dust disease is meant not the specific diseases which can be transmitted through the agency of dust or may follow the inhalation of dust, such as pneumonia, tuberculosis, typhoid fever, etc., not to mention the lesser troubles of amygdalitis, bronchitis, and the like, but those heretofore vague and ill defined symptom complexes that are variously referred to or misdiagnosticated as 'colds,' 'biliousness,' sick headache or migraine, hypochondria, etc., or as atypical cases of influenza, rheumatism, neurasthenia, gastritis, malaria, etc., or as cases of a rheumatic or gouty diathesis, or of lithæmia, not to mention autointoxication, eyestrain, etc."

3. **Congenital Malformations of the Eye.**—Chance reports four cases of congenital malformations of the eye. The character of the abnormalities noted is set forth in the title.

4. **Ethyl Chloride.**—Craig concludes: (1) The use of ethyl chloride for purposes of general anæsthesia has passed the experimental stage. (2) The position of the drug, so far as danger is concerned, has not as yet been definitely determined, though taking all available statistics into account, it can be reasonably assumed that it is safer than chloroform, probably safer than ether. (3) Only the *pure* preparation of the drug should be used for general narcosis. (4) The best method of administration is some form of the open method—either the Ware mask or the ordinary gauze compress. (5) Its use is especially indicated in young subjects. (6) It is not suited for prolonged operations, and as it does not produce complete muscular relaxation it cannot be especially recommended for the reduction of dislocations, and possibly of fractures, and for divulsion of the anal sphincter. (7) It is indicated in the various brief surgical procedures occurring in dispensary service of general surgery; in short operative measures in gynæcology; in a fairly wide field in obstetrical practice; and in much of the operative work of the nose and throat specialist.

6. **The Ætiology of Malignant Growths.**—Wallace believes that infection and heredity will not explain the origin of malignant tumors. It is easy to believe that no one cause gives rise to them but that their ætiology is varied. "Intrinsic irritation of the cell proliferating mechanism in the nucleus may, with the advance of cell chemistry, yield certain autogenous factors; but as extrinsic factors, may be summarized; various physical, chemical and physiological irritations and the irritations caused by parasitic life, any of which causes an evident disturbance in cell proliferation, as it were, a loss of equilibrium, which leads to insane proliferation and the consequent formation of neoplastic growths. The degree of malignancy would then depend upon

the rate and type of proliferation, and the loss of function and consequent reversion of type in the proliferating cells, attest the theory of nuclear or chromatin alteration or rearrangement."

MEDICAL RECORD.

October 1, 1904.

1. A Critical Review of the Study of Cancer, By Anna M. Galbraith.
2. Electricity in Medicine, By A. D. Rockwell.
3. The Idea of Gross Cleanliness in Surgery, and Its Harmful Results, By Robert T. Morris.
4. Traumatic Apoplexy, By Pearce Bailey.
5. The Indications for Surgical Intervention in Chronic Gastric Ulcer, By Frank H. Murdoch.
6. Peculiar Nervous Symptoms Following Operation, By W. R. Blaiklock.
7. Some Thoughts Concerning Two Recent Cases of Ectopic Gestation, By A. Brothers.
8. Œsophageal Diverticulum; Diagnosis Confirmed by X Ray Examination, By H. A. Bernstein.

1. **Cancer.**—Galbraith sums up the most striking features brought out by her study as follows: "(1) Cancer is almost totally absent in the tropics; (2) cancer is very rare among savage races; (3) with the advance of civilization, and the increased prosperity of the nations, there has been a steady and marked increase of cancer; (4) this disease is more prevalent among the well-to-do and wealthy than it is among the very poor; (5) it is more common among women than among men; (6) it is a disease par excellence of the climacteric; (7) it is hereditary; and (8) in order for tumors to become malignant a lessened physiological resistance of the local tissues, or of the body in general is necessary."

3. **Gross Surgical Cleanliness.**—Morris emphasizes the harm that results from attempts to obtain gross surgical cleanliness after operation. He holds that even the most gentle cleaning of wounds results in destroying a large quantity of newly proliferated cells and so retards healing.

4. **Traumatic Apoplexy.**—Bailey distinguishes three kinds of traumatic apoplexy: (1) Apoplexy occurring simultaneously with the injury. These cases are due to a preexisting weakness of the cerebral vessels which are ruptured either by the traumatism itself or by the rise of blood pressure induced at the time of accident. (2) Apoplexy occurring shortly after the injury. The mechanism of these cases has not been determined. (3) Apoplectiform symptoms occurring long after injury. These cases are probably due to a slow thrombosis occurring in areas of the brain which at some previous time had been the seats of traumatic insults.

5. **Gastric Ulcer.**—Murdoch asserts the mortality of chronic gastric ulcer under medicinal treatment in between 2.4 and 4 per cent. He places the mortality of gastroenterostomy for chronic ulcer at from 15 to 30 per cent. In his own experience recurrence after cure obtained by medicinal means is not frequent. From all this it follows, in the author's judgment, that operative intervention should only be resorted to when medicinal means have proved a failure.

8. **Œsophageal Diverticulum.**—Bernstein was able to demonstrate the presence of an œsophageal diverticulum by making his patient swallow a soft rubber catheter filled with shot. The patient was then examined with the x ray and the catheter was seen bent up upon itself in a U shape, thus outlining the sac.

BRITISH MEDICAL JOURNAL.

September 17, 1904.

(*Seventy-second Annual Meeting of the British Medical Association.*)

Section of Tropical Diseases.

1. Discussion on the Prophylaxis of Malaria, By J. W. W. Stephens, S. P. James, S. R. Christophers, and Others.
2. Discussion on the Leishman-Donovan Body, By W. B. Leishman, L. Rogers, C. Donovan, and Others.
3. Supplementary Notes on the Tsetse Flies (Genus Glossina, Wiedemann), By E. E. Austen.
4. A New Trematode of Man (Amphistoma Watsoni), By H. F. Conyngham.
5. A New Trematode, By J. Catto.
6. The Fungus of Tinea Imbricata, By P. W. Bassett-Smith.
7. The Congo Floor Maggot, By J. E. Dutton, J. L, Todd, and C. Christy.
8. Leprosy a Curable Disease, By T. J. Tonkin.
9. Climatic Bubo from Which an Organism Was Cultivated.—Recovery from Liver Abscess, followed by Abscess of the Upper Lobe of the Right Lung and Empyema.—Evanescent Subcutaneous Nodules Accompanied by Eruptive Fever in a Patient from Southern India, By J. Cantlie.
10. The Treatment of Snake Bites, By L. Rogers.
11. Infectious Jaundice, By F. M. Sandwith.
12. Epidemic Catarrhal Jaundice, By S. Anderson.
13. Jaundice in South Africa, By H. B. Mathias.

1. **Malaria.**—Stephens opens the discussion on the prophylaxis of malaria, by calling attention to the small number of species of anophelines that can transmit the disease, and points out that if we can positively state that a certain species does not transmit malaria, it will obviously simplify operations directed against mosquitoes. Certain malaria bearing species breed only on clean, flowing water; other anophelines, not capable of carrying the disease, breed only in stagnant puddles. So that minute work is required on breeding grounds, on the habits of larvæ, their enemies, etc., etc. The methods of prophylaxis usually adopted are: 1. Antilarvæ. This method is fundamental and thorough, provided it takes the form of systematic drainage, and not of petrolage. 2. Mechanical prophylaxis by wire netting, etc. The Japanese have applied this method with most excellent results. 3. Quinine prophylaxis. This gives excellent results among Europeans in small settlements, and there is no danger of black water fever provided sufficient quinine is taken. 4. Segregation of Europeans: *i. e.*, well isolated dwelling places, well separated from the insanitary native huts.

James and Christophers discuss the success of mosquito destruction operations and call attention to the following points:

1. It is easy to destroy larvæ in millions and

breeding places in hundreds, but it by no means follows that malaria is diminished or adult anopheles banished. The success of operations on a large scale is still very doubtful.

2. It is doubtful whether a reduction in malaria is likely to result from the destruction of breeding places around a barracks, prison, or other building.

3. The occasionally reported cases of the ridding of a town of malaria are challenged as absurd.

4. The use of admission returns, as evidence is a miserable method of proof. The only really satisfactory test of success is a reduction of the endemic percentage of infection.

5. It is most difficult to form any correct idea as to whether there has been a reduction in the number of anopheles.

6. Mosquito operations reports are very often extremely uncritical and often ridiculous, since they claim an amount of success for which they have no evidence.

Sewell gives in detail the results of the campaign against malaria in Mian Mir, a cantonment in British India near Lahore. In 1903, the second year of the antimalarial campaign, malarial fevers were in excess of the average, both in the number of the cases and the severity of the type, and this excess was more pronounced within the area of the operations than in the remainder of the cantonment. The campaign proved a failure, the operations having been conducted on an inadequate scale.

2. **The Leishman-Donovan Body.**—Leishman opens the discussion on the nature and significance of these parasitic bodies, which were first discovered by him in 1900. Originally found in the spleen, the parasites have since been met with in the liver, mesenteric glands, bone marrow, kidneys, and in intestinal ulcers. The parasites are chiefly intracellular, being met with in the protoplasm of large mononuclear macrophages. The symptomatology of infection with the parasite is as follows: 1. Splenic and hepatic enlargement, the former being invariably constant. 2. A peculiar earthy pallor of the skin, and, in advanced stages, intense emaciation and muscular atrophy. 3. A long continued, irregularly remittent fever, of no definite type, lasting frequently for many months, with or without remissions. 4. Hæmorrhages, such as epistaxis, purpura, etc. 5. Transitory œdemas. 6. Complications, such as congestion of the lungs, diarrhœa, and dysentery, etc. 7. A marked increase in the mononuclear leucocytes of the blood. Negative symptoms are the absence of malarial parasites and the Widal reaction, and resistance to quinine. The symptoms detailed above are very similar to those of kala-azar, and the parasites occur constantly in the latter disease. But it is not certain that the parasites are the cause of kala-azar, or that every case of infection with the parasite is one of kala-azar. The three views as to the nature of the parasite are as follows: 1. Ross believes it to be a new genus of sporozoa. 2. Larcrau holds that the bodies belong to the piroplasmata. 3. Leishman thinks that they represent a stage in the life history of a flagellate organism, closely resembling if not identical with the genus typanosomata. Rogers discusses cachexial fever occurring in India, associated with Leishman-Donovan bodies. His observations, as to clinical characters, symptomatology, blood changes, etc., correspond to those of Leishman already given. Bacteriological examinations have proved uniformly negative. But the author, by adding sodium citrate solution to the infected blood, and keeping at a temperature of 22° C., has succeeded in cultivating the parasite. Unmistakable and typical trypanosomata have appeared in such cultures, thus confirming Leishman's view as to the nature of the parasite. The author has obtained good results by the use of quinine, although most observers have pronounced it useless. Donovan, under the heading of Human Piroplasmosis, discusses the clinical side of the question, and reports four cases with temperature charts.

Bentley holds that the causative relations between the new parasite and kala-azar are very definite. He reviews the symptomatology, and the morphology of the parasite. Concerning the nature of the parasite, he agrees with Ross that it is probably a tissue parasite of an entirely new genus.

Christophers states that in infection by the Leishman-Donovan bodies the vascular endothelium is mainly implicated. Multiplication of forms is mainly by binary fission.

3. **Tsetse Flies.**—Austen carefully describes the various species of tsetse flies (Genus Glossina, Wiedemann), which flies are concerned in the transmission and spread of African trypanosomiasis. In conclusion, he gives a synopsis of the seven species so far recognized.

4, 5. **Trematodes.**—Conyngham and Catto describe two new trematodes, discovered by them post mortem. In one case the parasites occurred in the small intestine, in the other, in the thickened walls of the large intestine.

6. **Tinea Imbricata.**—Bassett-Smith states that the fungus of tinea imbricata should no longer be considered as one of the trichophytous, but as belonging to the aspergillus group of the perisporiacea; differing from the aspergilli by having two forms of reproduction: (1) by gonidia, from the gonidiophores; (2) by the development of oval spores, direct from the mycelium cells.

LANCET.

September 17, 1904.

1. The Surgical Treatment of Acute Intestinal Obstruction, By A. E. BARKER.
2. Some Remarks on Pyosalpinx Based Upon Notes of Twenty-three Cases, By E. S. BISHOP.
3. The Red Light Treatment of Smallpox, By T. F. RICKETTS, and J. B. BYLES.
4. Inspection of the Antrum of Highmore, By A. B. KELLY.
5. The Visual Fields in Tobacco Amblyopia, By N. B. HARMAN.
6. Cancer Facts and Cancer Fallacies: a Plea for the More Scientific Study and Treatment of Malignant Diseases, By H. SNOW.
7. The Plate Cultivation of Anaerobic Bacteria, By H. S. FREMLIN.
8. Case of Spontaneous Gangrene of the Skin in a Hysterical Female, By W. A. MEARNS.

9. A Case of Bullet Wound of the Brain in Which the Bullet Lodged About Twelve Centimetres from the Point of Entrance and Was Extracted from a Depth of 6.5 Centimetres from the Surface of the Head. (With a Note on the X Ray Methods in the Case), By W. Sheen, and W. Martin.
10. Congenital Word Blindness, By S. Stephenson.
11. Epithelioma of the Tongue in Women, with Notes of Ten Cases, By C. R. Keyser.
12. The Evolution of Man's Diet. II, By H. Campbell.

1. **Intestinal Obstruction.**—Barker defines the factors in intestinal obstruction which have to be treated surgically, as follows: 1. Mechanical or anatomical factors. The higher up the stoppage, the earlier and the more acute are the symptoms. The lower down the obstruction, the greater the amount of retained matter and the more septic it is. The character of the obstruction (band, volvulus, intussusception, etc.) also plays an important part.

2. Physical factors—*i. e.*, changes in the bowel. These include the local anæmia and the distal venous engorgement, the consequent œdema, thrombosis, and frequently sphacelus or ulceration. 3. Vital factors. These are of the greatest importance. There is microorganismal infection, with production and absorption of toxines, producing profound general depression, and often lung and kidney complications. More depends upon early diagnosis and prompt surgical action than on any particular method. The stomach tube should be passed in every case, whether there is a history of vomiting or not, and the mouth and throat washed out with some antiseptic fluid. If the patient is very feeble, subcutaneous saline or glucose injections may be given. As regards the choice of an anæsthetic, the writer prefers local analgesia, wholly or in part, thus doing away with the vomiting and other depressing after effects of ether or chloroform. If necessary, a little chloroform may be given for the manipulation of the root of the mesentery and its lateral reflection. When the abdomen is opened search, first of all, for a loop of empty bowel in the right iliac fossa: this is easier than searching along the distended gut. If possible, all manipulations should be performed within the bowel. When the bowel above the obstruction is sodden and discolored, several feet should be resected and an end to end anastomosis performed. Too much stress has hitherto been laid upon the mere removal of the mechanical stoppage, and not enough upon the evacuation of the putrid material which is killing the patient. The establishment of an artificial anus is unsatisfactory, as the bowel is completely paralyzed and expels its contents very slowly. The abdomen should be closed at once without drainage unless there is general peritonitis. The after treatment is important: the patients should sit up in bed as much as possible from the first, thus overcoming the tendency to hypostatic pneumonia.

2. **Pyosalpinx.** — Bishop reports in detail twenty-three cases of pyosalpinx, six of which ended fatally. In the majority of cases some direct connection between traumatism during labor or the poison of gonorrhœa could be detected, and a long period of invalidism traced between the date of infection and that of operation, during which, symptoms were more or less constantly present. It is far safer to open these acute abscess cavities through the vagina, thus avoiding the danger of infection of the peritonæum. Shock is one of the greatest dangers to be feared, and it is often warded off by subcutaneous injection of warm saline solution. Loss of bodily heat is a very potent factor in the causation of shock. The author has had a rubber bed constructed which is made up of a succession of transverse rubber cylinders containing hot water. This has proved to be light, easily managed, and very effective.

3. **Smallpox.**—Ricketts and Byles publish the temperature charts and photographs originally intended to accompany their article on the red light treatment of smallpox which appeared in the *Lancet* for July 30, 1904. The charts well illustrate the point, that treatment by red light does not prevent the fever of suppuration. The photographs illustrate the fact, that though the treatment was begun early, it wholly failed to prevent or check the normal development of the lesions.

4. **Inspection of the Antrum.**—Kelly's method of opening the antrum of Highmore for inspection through a speculum, is as follows: After local cocaine anæsthetization an incision is made along the gingivolabial fold from just in front of the zygomatic alveolar ridge. The front wall of the superior maxillary is now exposed with a raspatory, and a sharp trocar is applied to the bony surface at a point about five millimetres in front of the zygomatic alveolar ridge and about the same distance above the incision in the mucous membrane. A blunt trocar is used to complete the operation, so as not to injure the opposite wall of the antrum. The detailed examination of the lining membrane of the antrum is best postponed until the day after the operation, the wound being loosely packed with iodoform gauze. A majority of the cases seen, suffered from chronic antral suppuration, and the diseased membrane was seen to be smooth, pale, and thickened. Antiseptic applications, and liquid astringents and caustics were found to have but little beneficial effect. The best results were obtained with chromic acid fused on the end of a probe. The ease and safety of the author's method justify its adoption as a diagnostic procedure. But the results obtained by the direct treatment of antral disease warrant only its reserved recommendation.

11. **Epithelioma in Women.**—Keyser reports ten hitherto unpublished cases of epithelioma of the tongue in women. In comparison with the occurrence of the same condition in men, the following points are noted. The age does not differ in the two sexes, the average of twenty-one female cases being 54.7 years. As in men, the new growth is almost invariably preceded by prolonged local irritation, the result of either rough carious teeth, a badly fitting or broken tooth plate, or syphilis of the tongue. The so called precancerous condition or leucoplakia is commonly, but not invariably, seen. In neither the appearance, situation, course, diagnosis, prognosis, nor treatment does the disease in women appear to differ from that in men.

Letters to the Editor.

THE PATENTING OF SURGICAL INSTRUMENTS.

2417 SPRUCE STREET,
PHILADELPHIA, *September* 22, 1904.

To the Editor,

Sir: There is still another argument in favor of Dr. Lydston's brilliantly written contention that surgeons should patent their ideas. The late Professor Goodell generally devoted a lecture to the discussion of well known surgical instruments and their uses, for he had been startled years before to find that surgical instrument makers were often careless or ignorant and produced instruments occasionally that contained faults and vices deprecated severely by their original devisers, even so clear cut and classical an instrument as Sims's speculum being made improperly at times.

Dr. Lydston in his editorial, as usual in his writing, cuts at once to the heart of the matter and states his case with all clearness and force. Theoretically his suggestion that it would be better for the surgeon and better for the public to patent surgical instruments, as then the glory and profit would go to the inventor, while the public would not suffer, is at the first glance unanswerable until we consider the question practically. In the first place, it would be difficult or impossible to patent all surgical instruments; the Patent Office works on definite plans, and it would be hard to comply with these constantly. Again, in the question of profit, we must remember that Edison, who is cited by Dr. Lydston, is on record as saying that our patent laws are faulty and our courts slow to repair injustice, and that he fights infringements by devising methods to undersell competitors rather than by direct assault. Moreover, it is scarcely fair to compare surgical instruments limited in application as money makers to electrical appliances that are produced by the thousands.

Should the fact develop that there is a large profit in the handling of patented surgical instruments, we should see the investment of capital and the gradual establishment of institutions as are now found in dental instrument work. Among dentists there is no such interdiction; patents are not tabooed, and yet we find that the better patents are controlled by large dental supply houses that either force the inventor to dispose of new inventions or drive him from the field by underselling should he dare to start out singlehanded. In other ways, these houses may act to the detriment of the profession, for, having apparatus to produce certain forms of instruments, they can buy up and suppress better inventions that injure already established trade.

Lastly, and probably the most important factor to be considered, is the question of the impression upon the general public. The world apparently laughs at the attitude of surgeons and physicians as unbusinesslike for taking such high-minded views of their obligations, but it is just such positions as this that have held the profession high in public esteem. The mere title of doctor brings everywhere courtesy and deference, and it is due to this plane on which medical work is set. It is a serious problem whether the profession does not get greater benefit indirectly in this way, even if measured by the standard of dollars and cents, than if it accepted the small, uncertain pecuniary returns which might come from surgical patents. J. HOWE ADAMS.

THE COPPER TREATMENT OF WATER.

SYRACUSE, N. Y., *September* 5, 1904.

To the Editor,

Sir: I am led to believe from the tone of your editorial comment on the use of copper sulphate in contaminated reservoirs in the *Journal* for September 3rd that you are not in possession of all the facts. As a method for eradicating algæ it has been very successful, and it was for that purpose that the use of this cheap and easily obtained material was advised in the original paper by Messrs. Moore and Kellerman, of the Department of Agriculture. Incidentally, however, they announced that copper sulphate in the proportion of 1-400,000 is rapidly fatal to the typhoid bacillus in water. They have made a search of literature and give abundant evidence showing that copper is not toxic in large and continued doses. Fully qualified experienced observers seem to agree on this point and numerous experimental findings cited seem to justify the unanimity. I am also informed that for several months a number of department clerks have been drinking water containing it in the proportion of 1-400,000, with no ill effects.

Whether copper is or is not toxic need not be considered, as I am prepared to show. The lime of ordinarily hard water precipitates the copper in a very short time, and as most drinking water contains a sufficient amount (or it can easily be added), copper cannot be demonstrated by the most delicate tests after a few hours.

As a hint of the possibilities of this method I would call your attention to an article in the *Engineering News* for July 14th. It relates what the health board of Elmira did on their own responsibility. Hearing of the copper sulphate treatment, they went ahead without hesitation, not even applying for a proper formula. They had a reservoir fouled by algæ, but instead of using copper sulphate in the proportion of 1-5,000,000 to 1-10,000,000, they added it to the strength of about 1-700,000. Notwithstanding the strength of the solution, one litre taken thirty hours afterward, condensed, by boiling, to one c.c., failed to give the faintest trace of copper. What is of greatest importance is the fact that, along with a complete removal of all algæ and relief from their disagreeable effects, the bacterial count was diminished ninety per cent., and that after seventy hours the *Bacillus coli communis* had dropped out entirely.

I do not advocate a prompt acceptance of copper sulphate as the only safe and sure preventive of typhoid fever. I do believe that it deserves thorough investigation as a cleanser of suspicious water and that great usefulness may be demonstrated. When even a colloidal solution of copper formed when water stands in copper vessels or runs through copper pipes is known to be fatal to algæ, it is not too much to expect that dilute solutions of even 1-1,000,000 will make the typhoid and colon bacilli uncomfortable.

Your editorial warns against the use of copper to the exclusion of other better known and less dangerous measures. I know of no measure which can have the same field of usefulness, and nothing could be more free from danger.

William A. Groat.

Proceedings of Societies.

MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

Fifty-fourth Annual Meeting, held in Pittsburgh on Monday, Tuesday, September 26 and 27, 1904.

The President, Dr. William B. Ulrich, of Chester, in the chair.

The meeting was called to order at 9.30 a. m. in the Music Hall of the Carnegie Institute. Prayer was offered by the Reverend Dr. McIlvaine, which was followed by an address of welcome on behalf of the citizens of Pittsburgh, by Mr. J. A. Blair.

Dr. T. M. T. McKennan, president of the Allegheny County Medical Society, delivered the address of welcome on behalf of that society, in which he reviewed the progress made by both the State society and the Allegheny County Medical Society since the first meeting of the State society in Pittsburgh, about fifty years ago.

William J. Holland, Ph. D., LL. D., curator of the Museum of the Carnegie Institute, delivered an address of welcome, in which he reviewed the life and work of Andrew Carnegie, and commended his gifts to the city of Pittsburgh.

Dr. Philip Marvel, of Atlantic City, N. J., delegate from the New Jersey Medical Society, made a few remarks upon the work of that society, which is the oldest in the United States.

In the session of the Executive Council the reports of the various officers and committees were received. The secretary's report showed at the present time fifty-nine county societies, five having been established within the past year, with an aggregate membership of 4,025, a net gain of 360 during the year.

The Address in Medicine was delivered by Dr. Henry Beates, Jr., of Philadelphia, in which he stated that the highest physical and mental health and character were necessary to a physician in order that he might properly execute the bond of trust existing between him and his patient. He dwelt upon the detrimental effect of the spirit of commercialism which to some extent was invading the ranks of the professions, as well as the electropaths, osteopaths, etc., and urged the necessity for the education of the laity to the value of consulting only a qualified practitioner. He urged the necessity for the better fundamental education of the medical student before he was allowed to matriculate at colleges, and believed that only those should be permitted to enter who had the required preliminary education.

The Address in Surgery was delivered by Dr. Winters D. Hamaker, of Meadville, who dwelt particularly upon the disadvantages of the surgeon when sued for malpractice, assigning as reasons (1) his prosecutor is in nearly all cases without property, and the juries know that the counties must pay the costs if the suit fails; (2) in many of the cases the poor results have been brought about by neglect or disobedience on the part of the patient or his friends; (3) before a jury a case may be made out worse than it really is, or can be "made up" entirely; (4) courts will not allow an examination under an anæsthetic to make a complete diagnosis; (5) the profession has devised no system of common defense; (6) the juries are ignorant of the subjects discussed; (7) so called experts, very often ignoramuses, are brought in to testify against the defendant; (8) the impossibility of obtaining good results in many cases of severe injury. He urged that the surgeon should in complicated cases have frequent consultations or x ray examinations, and insist upon strict obedience by the patient. He referred to the insurance companies which had been formed to defend physicians from such attacks, and recommended that the society appoint a commitee to investigate this matter, as well as consider the advisability of attempting to secure more favorable legislation.

The Address in Obstetrics was delivered by Dr. X. O. Werder, of Pittsburgh, on the subject of the treatment of pregnancy complicated by pelvic tumors. Ovarian cysts, being a constant menace to the safety of the mother during pregnancy, should be promptly removed at any period of gestation. Pregnancy complicated by fibroid tumors should as a rule be treated on the expectant plan, and required interference only when serious danger to the mother arose. When carcinoma of the uterus was discovered during pregnancy, immediate radical operation should be done, when the disease was still in an "operable" stage, regardless of the child. When the neoplasm was "inoperable," however, the life of the child became the paramount consideration in the treatment.

The Address in Hygiene and State Medicine was read by Dr. Alexander C. Abbott, of Philadelphia, who stated that the subject should include nuisances and places which under improper care might become such, the complication of vital statistics, and the management of contagious diseases and the establishment of hospitals for the reception of persons affected with them, as well as maritime and when necessary inland quarantine. He referred to the fact that the city statistics showed larger mortality rates in contagious diseases than those of the rural districts, because in the latter illness, death, and interment could take place without any record being made. He especially urged the value of vital statistics of the regions from which the water and milk supplies of cities were obtained, and the prevention of the deposit of human waste in channels which led to the water supply. He believed the examination of the physician for a license should be more of a practical nature and less theoretical. He particularly commented upon the value of vaccination in smallpox, giving detailed statistics of the recent Philadelphia epidemic.

The Address in Neurology, entitled The Need for Systematic Study of Individual Characteristics as Manifested by the Organism's Reaction to Sensory Stimuli, was read by Dr. Walker, of Dixmont, who urged the importance of the individual study of each case, particularly the chemical and physical phenomena of nutrition and the vasomotor and secretory conditions.

The Physician and the State, by Dr. Benjamin Lee, of Philadelphia, was read by Dr. Matons. The author called attention to the duties of the man entering the medical profession to his fellow citizens and the State, particularly his duty to have a cultivated mind, thoroughly trained in all the branches of the medical art. He also commented upon his duty to aid the State in the compilation of vital statistics, and to notify the health authorities of contagious diseases, expressing his belief that it was the duty of every physician offered a place upon the board of health to accept.

The Professional Responsibility for Accident Cases Involving Suits for Damages, by Dr. John B. Roberts, of Philadelphia, was read by title. (Published in this *Journal*, October 1st.)

Personal Recollections of Dr. John L. Atlee and Dr. Washington L. Atlee was the title of a paper read by Dr. B. H. Detwiler, of Williamsport, in which he reviewed the life and work of these men, referring particularly to the work done by Dr. Washington L. Atlee in ovariotomy.

Specialism: Its Evils and the Remedy, by Dr. Boardman Reed, of Philadelphia, was read by title.

(To be continued.)

Book Notices.

Manual of Practical Medical Electricity. The Röntgen Rays, Finsen Light, Radium and Its Radiations and High Frequency Currents. By Dawson Turner, B. A., M. D., F. R. C. P., Ed., M. R. C. P., Lond., President of the Royal Scottish Society of Arts; Vice-President of the British Electrotherapeutic Society, etc. Fourth Edition, Revised and Enlarged. New York: William Wood & Co., 1904. (Cloth, $4.25.)

When a work reaches its fourth edition it is a fair presumption that its favorable reception is due to its innate merit, and this, to a certain extent, is true of the book before us. This fourth edition purports to be "revised and enlarged," and such we find it to be. Some of the errors, however, that appeared in the earlier editions remain uncorrected, and, very curiously, an error is introduced in the fourth edition that did not appear in the third. Referring to the "static induced" current, the author says (third edition, p. 12): "Such discharges are extremely sudden," etc. To this statement no exception can be taken, but in the fourth edition, page 13, it is altered to read: "Such discharges are *oscillatory* and extremely sudden," etc. Here the introduction of the word we have put in italics tends to convey an entirely erroneous idea, as Manders (*Medical Electrology and Radiology*, July, 1903) has shown that the current that traverses the patient is unidirectional and not oscillatory. There are so few indications for the use of this current that the matter is of but little practical importance, but we are greatly surprised at the omission of all mention of the very useful Morton wave current and the brush current from wooden electrodes. The author considers the Wimsherst as the only static machine suitable for medical use, a view with which few in this country would agree. He further says that he prefers to keep his machine uninclosed, as the "electricity undoubtedly escapes to the walls of the case, and the ozonation and nitrification of the air inside the case so produced militates against the efficient working of the machine." In a properly constructed machine there is no escape to the case.

The author's rule for determining the polarity of the static current is stated as follows: "Disconnect the Leyden jars and approach the conductors together until they are about 1 inch apart; if the plates be now gently rotated, a violet spark will pass continuously between the poles, but that part which springs from the positive pole will be brilliantly white and about ¼ inch in length." This is quite correct, but the author might have added that if the conductors were separated four or five inches the "brilliantly white" part would be found on the *negative* side. The portion of the book dealing with static electricity is by no means adequate to the needs of the American practitioner.

The chapters on galvanism and faradaism are good, but the use of their currents in combination is erroneously attributed to De Watteville, as they have been in use in this country for certainly more than twenty-five years.

Electrophysiology, electrodiagnosis, electrosurgery, and electrotherapeutics are the subjects of Parts II, III, IV, and V of the work, while Part VI is devoted to the Röntgen rays, Finsen light, radium, and high frequency currents, these subjects being comprised in less than 100 pages, an amount of space that could have been usefully devoted to each of them. It is needless to say that they have been very inadequately presented. It is further to be regretted that the author has omitted mention of many of the developments in electrotherapeutics that have originated in this country during the past ten or fifteen years. Taken as a whole, the work gives us a good conspectus of the subjects of which it treats, but hardly merits the designation "practical" that appears in its title.

Epilepsy and Its Treatment. By William P. Spratling, M. D., Superintendent of the Craig Colony for Epileptics at Sonyea, N. Y., etc. Illustrated. Philadelphia, New York, London: W. B. Saunders & Co., 1904. Pp. 522. (Cloth, $4.00.)

Certainly no one, in America at least, is so well qualified to write a book on epilepsy as Dr. Spratling. For ten years, and since its establishment, he has been the superintendent of the Craig Colony. Under his observant eye the colony plan, as embodied in the Sonyea institution, has developed and flourished and become the model of colonies formed in other States. At the same time he has had large numbers of epileptics under his personal supervision and care. His opportunties, therefore, for the study of epilepsy and the personality of epileptics, together with their needs in the way of care and treatment, have been unsurpassed. That these opportunities have been used to the best advantage this comprehensive volume shows. Based upon the records of several thousand cases, this terrible disease, with its many social complications, receives a consideration not to be found elsewhere. The chapters on treatment alone occupy over a hundred pages. Other aspects of the subject are considered with equal fulness. Particularly noteworthy are the sections on the psychological and medicolegal aspects and on prognosis. There are other excellent monographs on epilepsy, but none which treats the subject from all standpoints. Whether it may be debated questions in ætiology, or epilepsy in history, or the methods of laying out a colony, all receive liberal consideration. The author does not limit his statements to personal experience only, but refers frequently to other writers in the field. The book is profusely illustrated, most of the illustrations being new, and is fully supplied with illustrative cases.

Through it all runs a hopeful tone. The thoughtful physician cannot lay the volume down without the conviction that the future holds out something for the epileptic after all. That when these unfortunates are better understood and better classified, and are given the fuller advantages which colony life with its freedom, outdoor life and occupation, and cheerful surroundings alone offers, the present percentage of permanent cures will be materially increased.

An Index of Symptoms as a Clue to Diagnosis. By Ralph Winnington Leftwich, M. D., Late Assistant Physician to the East London Children's Hospital. Third Edition. New York: William Wood & Co., 1904. (Cloth, $2.00.)

The author has increased the usefulness of this valuable little work by making the list of diseases more complete and including about fifty new symptoms. It is a most useful pocket companion to the student, and for the general practitioner it is likely to be a desk companion for constant reference. It well deserves the popularity that has required a third edition.

Studies on the Classification and Pathology of Beri-Beri, from the Institute for Medical Research, Federated Malay States. Vol. II, No. 2. By Hamilton Wright, M. D. (McGill), Honorary Fellow of Johns Hopkins University (Late Director Institute Medical Research, Federated Malay States). Printed by Authority of the Resident General, F. M. S. London: John Bale, Sons, & Danielsson, Ltd., 1903. (Price, 3s. 6d.)

In this interesting contribution to the literature of this important tropical disease the author presents the salient features of a number of carefully studied cases, and emphasizes the fact that beri-beri is an acute infectious disease that has a definite primary lesion. The latter is believed to be a gastroduodenitis, though the author's investigations have not demonstrated the causal organism. The latter elaborates in the affected mucous membranes toxines that are absorbed and act chiefly and most obviously on the peripheral terminations of the motor, sensory, and autonomic neurones, and on the parenchyma of the heart and kidneys. It is thought that when the causal organism is found it will present many of the characteristics of the Klebs-Loeffler bacillus.

BOOK AND MAGAZINE NOTES.

Fields are inoculated showing that not all bacteria are harmful, as the uninitiated may learn from a perusal of an article in the October *Century,* by Gilbert H. Grosvenor. He says that the same bacteria that increase the harvest of beans, or clover, or alfalfa tenfold, enable the plants to leave many times more nitrogen in the soil than they would have done if uninoculated; in other words, they make the soil many times more fertile, so that the crop of cotton or wheat or corn or potatoes planted next year is many times larger. Thus the rotating crop, the year following inoculation, derives an equal benefit from the inoculation. For instance, a crop of crimson clover, not inoculated, added to one acre of land 4.3 pounds of nitrogen; a crop of crimson clover, inoculated, added to one acre of precisely similar land 143.7 pounds of nitrogen, an increase of 33½ times; a crop of inoculated hairy vetch added to one acre fifteen times more nitrogen than a crop of uninoculated hairy vetch.

In part VII, which concludes The Youth of Washington, by Dr. Mitchell, in the October *Century,* the defeat of General Braddock is graphically described as if by an eye witness. We note the conclusion of this remarkable *tour de force* with regret, and hope we are soon to see Dr. Mitchell again in the literary field, which his presence dignifies as greatly as it does the medical profession, whence he makes his pilgrimage.

BOOKS, PAMPHLETS, ETC., RECEIVED.

Transactions of the Medical Society of the State of New York, for the Year 1904. Published by the Society, 1904.

Physician vs. Bacteriologist. By Professor Dr. O. Rosenbach. Authorized Translation from the German by Achilles Rose, M. D. New York and London: Funk & Wagnalls Company, 1904. 12mo, pp. xiv-462. [Cloth, $1.50.]

The Meaning of a Modern Hospital. By W. Bruce Clarke, M. A., M. B., Oxon., F. R. C. S., Surgeon to St. Bartholomew's Hospital. London, New York and Bombay: Longmans, Green & Co., 1904. Pp. vi-47.

Transactions of the Southern Surgical and Gynæcological Association. Vol. XVI. Sixteenth Session, held at Atlanta, Ga., December 15, 16, and 17, 1903. Edited by W. D. Haggard, M. D. Published by the Association, 1904.

An Atlas of Human Anatomy. Fourth Section, E. Splanchnology, and Fifth Section, F. Angeiology. For Students and Physicians. By Carl Toldt, M. D., Professor of Anatomy in the University of Vienna, assisted by Professor Alois Dalla Rosa, M. D. Translated from the Third German Edition and Adapted to English and American and International Terminology, by M. Eden Paul, M. D., Brux., M. R. C. S., L. R. C. P. (Figures 641 to 932, and Index). New York: Rebman Company. London Agents: Rebman, Limited, 129 Shaftesbury Avenue, Cambridge Circus, W. C., 1904.

Health and Disease in Relation to Marriage and the Married State. A Manual Contributed to by Privatdozent Dr. Med. G. Abelsdorff, Privatdozent Dr. Med. L. Blumreich, Privatdozent Dr. Phil. R. Eberstadt, Geh. Med.-Rat Professor C. A. Ewald, Geh. Med.-Rat Professor Dr. A. Eulenburg, Geh. Med.-Rat Professor Dr. P. Furbringer, Hofrat Professor Dr. Med. M. Gruber, Dr. Med. W. Havelburg, Geh. Med.-Rat Professor Dr. A. Hoffa, Professor Dr. Med et Phil. R. Kossmann, Geh. Med.-Rat Professor Dr. F. Kraus, Dr. Med. R. Ledermann, Med.-Rat Dr. A. Leppmann, Geh. Med.-Rat Professor Dr. E. v. Leyden, Professor Dr. Med. E. Mendel, Dr. Med. A. Moll, Geh. Med.-Rat Professor Dr. A. Neisser, Geh. Med.-Rat Professor Dr. J. Orth, Dr. Med. S. Placzek, Professor

Dr. Med. et Phil. C. Posner, Privatdozent Dr. Med. P. F. Richter, Professor Dr. Med. H. Rosin, Dr. Med. W. Wolff. Edited by Geh. Medizinairat Professor Dr. H. Senator and Dr. Med. S. Kaminer. The Only Authorized Translation from the German into the English Language by J. Dulberg, M. D., of Manchester, England. Vol. I. New York: Rebman Company. London: Rebman, Limited.

Clinical Lectures and Essays on Abdominal and Other Subjects. By H. D. Rolleston, M. A., M. D., Cantab., F. R. C. P., Physician St. George's Hospital; Formerly Fellow of St. John's College, Cambridge, etc. Philadelphia: P. Blakiston's Son & Co., 1904. [Cloth, $1.50 net.]

Regional Minor Surgery. By George Gray Van Schaick, Consulting Surgeon to the French Hospital, New York. Second Edition, Enlarged and Revised, 228 Pages, Bound in Cloth, Profusely Illustrated. New York: International Journal of Surgery Company. [Price, $1.50.]

A Textbook of Physiological Chemistry. For Students of Medicine and Physicians. By Charles E. Simon, M. D., of Baltimore, Md. Second Edition, Revised and Enlarged. Philadelphia and New York: Lea Brothers & Co., 1904. Pp. xx-500.

Eighth Annual Report of the Manhattan State Hospital (the Manhattan State Hospital, East, Ward's Island) at New York, to the State Commission in Lunacy, for the Year Ending September 30, 1903. Albany: J. B. Lyon Company, 1904.

Handbook of Physiology. Revised by Frederick C. Busch, B. S., M. D., Professor of Physiology, Medical Department, University of Buffalo. Fifth American Revision. With 535 Illustrations, including many in Colors. New York: William Wood & Co., 1904. Pp. 862.

A Treatise on Obstetrics. For Students and Practitioners. By Edward P. Davis, A. M., M. D., Professor of Obstetrics in the Jefferson Medical College; Professor of Obstetrics in the Philadelphia Polyclinic, etc. Second Edition, Illustrated with 274 Engravings and 39 Plates in Colors and Monochrome. Philadelphia and New York: Lea Brothers & Co., 1904. Pp. viii-809.

Diseases of the Stomach and Their Surgical Treatment. By A. W. Mayo Robson, F. R. C. S., and B. G. A. Moynihan, M. S., Lond., F. R. C. S. Second Edition. New York: William Wood & Co., 1904. Pp. xiv-508. [Cloth, $4.25.]

The Suppression of Tuberculosis. Together with Observations Concerning Phthisiogenesis in Man and Animals, and Suggestions Concerning the Hygiene of Cow Stables and the Production of Milk for Infant Feeding; with Special Reference to Tuberculosis. By Professor E. von Behring, University of Marburg. Authorized Translation by Charles Bolduan, M. D. New York: John Wiley & Sons. London: Chapman & Hall, Limited, 1904. Pp. v-85. [Cloth, $1.00.]

Die Tuberkulose. Ihre Aetiologie, Prophylaxis, und Therapie. Nach klinischen erfahrungen und versuchen dargestellt von Dr. J. Goldschmidt. Pp. 81. Leipzig: F. C. W. Vogel, 1904.

Miscellany.

Neuritis in Pregnancy and the Puerperium.—At a meeting of the Obstetrical Society of Philadelphia, held on March 3d, Dr. W. R. Nicholson, in a paper on this subject, said that the ætiology of these cases might be either sepsis, toxæmia, or, lastly, pressure upon the pelvic nerves. The case of the author was reported to him as belonging to the toxæmic group, as there were no septic conditions to explain it, and as the history of the labor precluded the possibility of there having been any involvement of the nerves by direct pressure. By far the most frequent variety met with were cases due to fœtal pressure upon the lumbosacral plexus during labor. Forceps might be the cause of injury to the lower sacral nerve, but the paralyses which would result from a neuritis at this point were comparatively infrequently seen, as compared with the paralyses of the external popliteal nerve, which took its origin from the lumbosacral plexus. The position of this latter plexus at the brim of the true pelvis subjected it to great chances of pressure from the presenting portion of the child, provided certain well established conditions were present. These were, a pelvis contracted in all its diameters, with a head well flexed and of such a size that engagement, while not impossible, was, nevertheless, tardy. The simple and rhachitic flat pelves did not predispose to a pressure neuritis with anything like the frequency of the generally contracted variety, as the promontory in both the former types was relatively prominent, and so served as a protection to the lumbosacral plexus as it passed over the linea innominata in the sacroiliac notch.

In discussing the paper, Dr. Charles W. Burr said that the author had said all in his paper that was to be said from the neurological side, with one small exception; that was the influence of pregnancy in precipitating an alcoholic neuritis in a woman who had used alcohol. It was a well-known fact that women who took alcohol were prone to have an attack of alcoholic multiple neuritis, during their pregnancy or immediately after. There was something in the pregnancy that excited the attack. The first case that Dr. Nicholson had reported Dr. Burr saw when the patient was at the University Hospital, and in it the neuritis surely was not due to mechanical cause. Frequently neuritis from intoxication was not confined to the legs; as a rule, there was some palsy in the arms.

Dr. Barton Cooke Hirst was more interested in the treatment than in any other phase of the subject. He thought this feeling must be shared by the majority of clinicians, as the necessity for palliative treatment was often urgent in the primary acute stage of the disease. There was usually excruciating pain as an early symptom, and it was this symptom that the obstetrician was called upon to relieve. The neurologist had the task, often thankless, of combating the muscle degeneration and consequent disability, but to the obstetrician in his daily visits fell the task of alleviating the agonizing pain. Experience had taught him that the following principles must be observed to give these patients comparative comfort. In neuritis of the lower extremities the best results were secured by immobilization of the limb, extension, and the application of a counterirritant along the nerve trunk affected. If the ordinary extension apparatus with sand bags or splints had failed, a good result was obtained sometimes by the use of the wire fixation apparatus that the orthopædic surgeon used to fix the trunk, the pelvis, and the limbs. The best counterirritant was a succession of small blisters along the nerve trunk. In milder forms of neuritis in other parts of the body he had found *baume analgésique* of use as a local application. In the last few days he had seen a case of neuritis in the back of the neck, in a woman who a year ago had neuritis in the forearm, showing a predisposition to the condition. She became slightly toxic before her delivery, from kidney insufficiency and rapidly increasing albuminuria. He was obliged to induce labor some three weeks before term. Forty-eight hours after labor she developed an excruciating pain in the back of the neck. It yielded within twenty minutes, after the application of the analgetic balsam, and was kept in control by subsequent applications until it wore off. He had seen the same good results from applications over the larger trunks. He should be inclined to use this external application before ordering the disagreeable one of blisters along the course of the nerve.

It was always better to have a neurologist see these patients in consultation, and to leave the subsequent management of the case to him. Massage, electricity, and Swedish movements were the best means for restoring the affected part to usefulness.

He might mention in this connection his experience with ascending myelitis, which had been referred to. He recalled one case. The woman was delivered of twins without difficulty, and there could not have been great pressure on the nerve trunks, because the children were small. The labor was short; no complications in delivery and none in the puerperium. There was no rise of temperature and no symptom of infection; but, at the end of two weeks, the woman developed the pain of neuritis in one limb, followed very shortly by loss of power in both limbs, and then by steadily ascending paralysis involving the sphincters, and the muscles of the lower abdomen, until a vital point was reached, and the woman suddenly died. The ascending paralysis continued from ten days or two weeks, and it was a most distressing spectacle to watch the impending death slowly creeping over the patient. At the post mortem examination nothing was found to explain the myelitis. There was no infection, simply a degeneration of the spinal cord, and their conclusion was (if he remembered correctly, Dr. Burr having made the autopsy), that there was most likely an ascending nerve degeneration from pressure on the nerve trunks and the lumbosacral plexus. The prognosis in such a case was naturally hopeless.

The influence of the promontory of the sacrum in these cases was of interest. Dr. Nicholson called our attention to their occurrence in justo minor pelves, but it was not in every justo minor pelvis that we saw nerve pressure and neuritis. It was in that type in which there was an unusual deficiency in the prominence of the promontory. All justo minor pelves had this characteristic, but in some it was more marked than in others. The lack of prominence in the promontory robbed the nerve trunks of the protection usually afforded them by the bays alongside the promontory, at the sacroiliac junctions.

Dr. Davisson had had under his care two cases in which he had the diagnosis of "after pains in the leg." Whether the woman had pains in the nerve or muscle he did not know, but they were very severe. She required a hypodermic of morphine. In another delivery she had her child easily, but she afterwards had very severe pain in her thigh. She did not require a hypodermic at this time. In the other case the woman also had severe pain in her thigh. His impression was that she was not given a hypodermic of morphine, but he remembered that she said that every time she had a child she had pains there. When he said "after pains in the thigh," he meant that these pains came on at about the time the after pains should come on. Just after the labor there was not much pain, but the usual pain that would be accompanied by the contractions of the uterus following labor was all in the thigh, whether in the nerve or muscle, he did not know. They did not last more than twenty-four hours, and recovery was complete.

Dr. W. H. Good had had a case very similar to Dr. Davisson's, in which, for four days, instead of having after pains the woman had cramps in the legs and thighs, and these were extremely severe. They would last for three or four minutes, and she would have rest for probably half an hour. She also had the history of having these pains in a preceding pregnancy, and the doctor, who was her regular physician, corroborated this statement. The only thing which gave her any relief was morphine, until the pain finally passed away of its own accord.

The President asked Dr. Burr if he would supplement his discussion by making a few remarks as to treatment from the standpoint of the neurologist, both in the acute and the later stages.

Dr. Burr thought that Dr. Hirst had stated about all there was to be said concerning treatment of the acute stage. As to the treatment of the chronic stage, like most chronic diseases, its treatment was most unsatisfactory. Rest, massage, cold along the nerve trunks, or warmth along the nerve trunks, with strychnine and other drugs, were employed.

The Treatment of Prolapsus of the Funis.—At a stated meeting of the Obstetrical Society of Philadelphia, held on March 3, 1904, Dr. W. Reynolds Wilson read a paper on this subject, in which he divided the treatment of prolapse of the cord according to the stage in labor and the character of the presentation in cases in which this complication occurred.

For so called presentation of the cord with deficient dilatation he advised cervical packing with tamponing of the vagina, in order to induce dilatation. After rupture of the membranes, with beginning dilatation, he inclined to manual dilatation with extraction either by forceps, in the rare cases in which the latter was indicated, or by version.

As to presentation, the vertex and face were the most difficult to deal with, owing to the difficulty of initiating the management of the case until after engagement, when the danger of compression was greatest. Breech presentation, as a rule, offered the best opportunity for prompt extraction, especially as in a large number of breech cases the presentation was an accident accompanying premature delivery. The great danger in these cases was the chance of coiling of the cord about the neck, a frequent cause of death of the fœtus in breech presentation.

The writer believed that the conditions in prolapse of the cord were critical so far as the child was concerned and that they required prompt measures of treatment. The prognosis was so favorable for the mother that the child was apt to be disregarded in the delay incident to expectant measures, such as posture and the slow dilatation by hydrostatic bags.

In discussing the paper, Dr. Oliver Hopkinson thought that Dr. Wilson had covered the subject very fully. In treating presentation of the cord, Dr. Hopkinson gave full anæsthesia, and placed the woman on the side, rather than in the knee chest posture, which was uncomfortable, and then did manual dilatation. There was no danger of the cord being pressed upon, unless the head came down in the superior strait. The hand could keep the head up during dilatation. He preferred extraction by the foot. If there was a prolapse of the cord with the head presenting he used forceps.

He was glad to hear the author disapprove of the mechanical means of repositors, balls, and bags. He was afraid of these, and preferred the hand. The tampon he did not think was quite so dangerous as the repositor, though he had never tried it. He thought the hand, with patient on the side, was a more generally sucessful method. He feared the tampon on account of septic infection.

Dr. Barton Cooke Hirst said that there was one point to which it might be worth while to call attention. He had twice kept the baby alive in prolapse of the umbilical cord, when he intended doing a Cæsarean section, by placing the mother over the back of a chair in the Trendelenburg position. In these cases the women were kept in this posture for an hour and a half while the abdomen was scrubbed and preparations were made for the operation, and were carried in that position to the operating table. In both instances the child was alive and viable. Without this precaution he thought the Cæsarean section would have been useless, as the child would have died before they could have had a chance to prepare the mother and to carry out the operative treatment indicated by an extreme contraction of the pelvis.

Dr. Stricker Coles said that there was one case he would like to speak of with prolapse of the cord, that of a patient pregnant with twins, when the membranes of one sac had ruptured, and the os was only the size of half a dollar. Into this came a loop of bowel and the child's foot. He was puzzled to know how to treat the case. Nothing appeared to be so suitable for the case as a bag, and the one he showed before the society was the one he used in this case—simply a large soft rubber bag. This remained in for two hours and a half, and the first child was delivered in a few minutes without any trouble, because he had complete dilatation of the cervix. The second child was likewise delivered without difficulty and the lives of both children were saved. He knew of no better method for a case of this kind of breech presentation and prolapse of the foot. In one case which came to his mind there was prolapse of the cord and arm for two or three hours. When he arrived the child's arm was moving all the time, and was almost entirely out. In this case dilatation was complete, and the child was delivered by podalic version without trouble. So he had really had no trouble with prolapsed cord. In head presentations he had delivered with forceps. In one case, when the os was not sufficiently dilated, the patient was placed in the knee chest posture, and the cord was replaced with fingers and uterine contractions produced to bring the head into pelvis, and then the patient was allowed to assume a normal position. In this case the child was delivered living.

Dr. R. C. Norris wished to refer to a case further illustrating the remarks made by Dr. Hirst as to the value of the Trendelenburg posture until the obstetrician could reach the case. During this past winter he was called by telephone to Merchantville, early in the morning. The statement was made that the pulsations in the prolapsed cord were getting very feeble. It would be an hour and a half before he could arrive, and he therefore directed that the woman be placed over a kitchen chair in the Trendelenburg posture until his arrival. He arrived in time to deliver the child alive. He thought this an important practical point.

He had used the rubber bag in these cases, and he thought it much more satisfactory than the use of the tampon. To make the bag more efficient in these cases, it was important to introduce the largest one possible, and to keep up continuous traction on the bag by tying a string to it, with a weight attached hanging over the foot of the bed. He had had the attending doctor apply that with success until he could arrive.

On the Sterilization of the Hands.—A most exhaustive investigation on the subject of the sterilization of the hands for surgical purposes has been carried out by Mr. Charles Ledham-Green (*Birmingham Med. Rev.,* 1904, April, May, June). The various methods advocated by different authorities have been subjected to a series of searching tests, and the results obtained are most interesting. (1) Even after the most prolonged and energetic washing of the hands in soap and hot water, it is not possible materially to diminish the number of microbes on them; and this holds good whether sea sand, marble dust, or Schleich's soap is employed. (2) There is no advantage in unduly prolonging this washing process, as the hands never become sterile, and, owing to the loosening of the epidermis, generally appears more infected after than before the washing. No advantage is offered by the use of soft soap, or soap containing an excess of free alkali. (3) The water should be used as hot as it can be borne, and should be frequently renewed. After washing, the hands may with advantage be rubbed with a dry, rough, sterile cloth, to assist in the removal of the superficial cells of the epidermis. (4) The use of turpentine, benzoline, or xylol during or after the washing with soap and water does not appreciably improve the results. (5) The aqueous solutions of carbolic acid, lysol, perchloride, or biniodide of mercury are practically powerless to affect the microorganisms situated on the hands. (6) The use of a saturated solution of permanganate of potassium, followed by the application of strong oxalic acid (Kelly's method), gives wholly inadequate results. (7) "Sublamin" cannot be compared in efficiency with the alcohol-sublimate method of Fürbringer, which it was introduced to supplant. (8) The combination of an antiseptic like lysol or biniodide of mercury with a soap does not increase the power of the antiseptic, but rather tends to lower it. Such soaps are practically valueless for the cleansing of the hands. (9) Alcohol possesses a remarkable power of sterilizing the hands, far surpassing that of all other agents. To obtain the full benefit of the spirit method, it is necessary to employ the alcohol for from four to five minutes. (10) Spirit soap is greatly inferior to plain alcohol as a cleansing agent; and the addition of biniodide of mercury or lysol to this soap does not materially increase its value. (11) The power which alcohol possesses of sterilizing the hands is principally due to its property of hardening and fixing the superficial cells of the epidermis; in addition to which it has a marked bactericidal action. (12) Spirituous solutions of antiseptics are markedly superior to aqueous solutions, and the efficiency increases in direct ratio to the percentage of alcohol in the solution up to about 70 per cent., when any further increase in the proportion of alcohol causes a reduction in the sterilizing power of the antiseptic. (13) Of all the methods tested, the best results were obtained by the following modification of Fürbringer's process:—*(a)* The hands are first scrubbed for five minutes with soap and very hot water (about 50° C.), the water to be frequently changed—the use of sterile sea sand as an addition to the nail brush is an advantage; *(b)* the hands are then rubbed for three minutes with methylated spirit; *(c)* afterwards scrubbed for a minute or two with 70 per cent. sublimate alcohol (1 in 1,000); and *(d)* finally rubbed until dry, and polished with a sterile cloth.

The author advises the use of gloves or the coating of the hands with a thin layer of hard paraffin when possible; and lays special stress on the importance of avoiding infection of the hands by handling septic material.

Treatment of Pulmonary Tuberculosis by Endotracheal Medication.—Professor Fournier has presented before the Paris Academy of Medicine, a study of Dr. Mendel on Pulmonary Tuberculosis. Dr. Mendel is a partizan of a method of treatment, the first idea of which dates from about twenty years ago, but which has been, up till now, very little employed, the application being somewhat painful and requiring on the part of the doctor a special laryngological instruction not usually possessed by general practitioners. The technics imagined by Dr. Mendel is willingly accepted by all his patients and moreover can be easily applied at the first essay by a doctor not possessing any special laryngological instruction. This method consists in daily tracheal injections of from 6 to 9 c. c. of eucalyptus oil; it thus constitutes a topical medication of tuberculosis. The results are most remarkable.

In this study the author reports more than a hundred observations of tuberculosis, at all degrees, taken, for the greater part, in the service of Professor Brissann in Hôtel Dieu, in which he has noticed remarkable stethoscopic modifications, such as, diminution and cessation of cough and expectoration, return of strength and appetite, and especially in augmentation of the respiratory functions and consequently of hæmatosis.

Effects of the State of Refraction of the Eye in the Sight of Colors.—The dioptric state of the eye plays a considerable rôle in the vision of colors. It is thus that M. A. Pollack, member of the Paris Academy of Science, has been able to show that if the eye is adapted for a shorter distance than that at which a colored object is placed, or if it is provided with a suitable convergent glass, the red appears more saturated or deeper, yellow turns to orange, green becomes yellow or reddish, blue takes on a more violet tone. If, on the contrary, the eye is provided with a divergent lens, so that the *punctum remotum* falls beyond the object observed, the red appears more violet or more gray, yellow becomes greener, green more bluish, whilst blue becomes deeper. Again, when colors are on a white ground and not on a black ground, the phenomenon is reversed. In a state of myopia one then remarks the modifications that are perceived in a state of hypermetropia with a black ground, and inversely; the effect is also less distinct. Mr. Pollack explains these transformations of colors by the chromatic aberrations of the ocular centres.

Official News.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera and plague, have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the week ending September 30, 1904:

Place.	Date.	Cases.	Deaths.
Smallpox—United States.			
Louisiana—New Orleans	Sept. 17-24	5 imported	
Massachusetts—Lawrence	Sept. 17-24	1	
Massachusetts—Lowell	Sept. 10-24	2	
Massachusetts—North Adams	Sept. 20-27	4	
Michigan—42 localities	Sept. 10-17	Present	
Minnesota—Morrison County	Sept. 12-19	1	
Minnesota—Washington County	Sept. 12-19	1	
Missouri—St. Louis	Sept. 17-24	6	1
New York—New York	Sept. 17-24	4	
Pennsylvania—Titusville	Sept. 17-24	1	
South Carolina—Camden	Sept. 17-24	1	
Tennessee—Memphis	Sept. 17-24	1	
Tennessee—Nashville	Sept. 17-24	2	
Wisconsin—Milwaukee	Sept. 17-24	2	
Smallpox—Foreign.			
Austria—Prague	Sept 3-10	1	
Brazil—Rio de Janeiro	Aug. 7-28	917	408
China—Shanghai	Aug. 6-20		4
Great Britain—Bristol	Sept. 3-17	2	
Great Britain—London	Sept. 3-17	3	
Great Britain—Nottingham	Sept. 3-10	1	
India—Bombay	Aug. 23-30		3
India—Calcutta	Aug. 20-27		1
Italy—Palermo	Sept. 3-10	8	5
Mexico—City of Mexico	Aug. 28-Sept. 4	1	
Russia—Moscow	Aug. 27-Sept. 3	5	2
Russia—St. Petersburg	Sept. 3-10	2	
Turkey—Alexandretta	Aug. 27-Sept. 3		1
Turkey—Beirut	Sept. 3-10	Present.	
Turkey—Constantinople	Sept. 4-11		9
Yellow Fever.			
Brazil—Rio de Janeiro	Aug. 14-28	2	1
Ecuador—Guayaquil	Aug. 24-Sept. 7		5
Mexico—Coatzacoalcos	Sept. 11-18	8	2
Mexico—Merida	Sept. 11-17	1	
Mexico—Tehuantepec	Sept. 11-17	2	1
Mexico—Vera Cruz	Sept. 10-17	1	
Cholera.			
India—Bombay	Aug. 23-30		39
India—Calcutta	Aug. 20-27		4
Turkey—Bagdad	Aug. 22	127	105
Turkey—Basra	Aug 22	3	3
Turkey—Bazian	Aug. 22	53	41
Turkey—Hitt	Aug. 22	61	28
Turkey—Mendelli	Aug. 22	27	10
Turkey—Nasrie	Aug. 22	17	13
Plague—Insular.			
Philippine Islands—Manila	July 23-30	6	6
Plague—Foreign.			
Africa—Cape Colony	Aug. 13-20	1	1
Australia—Perth	July 29	1	
Australia—Sydney	July 31-Aug. 6	1	1
Brazil—Bahia	Aug. 13-27		10
Brazil—Rio de Janeiro	Aug. 7-28	21	8
China—Fuchau	Aug. 8	Epidemic.	
Egypt—Achmun (district)	Aug. 20-27	2	
Egypt—Alexandria	Aug. 20-27	3	
India—Bombay	Aug. 23-30		59
India—Calcutta	Aug. 20-27		5
India—Karachi	Aug. 21-28	3	3
Japan—Formosa	Aug. 13-20	12	8

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending October 1, 1904:

Devereux, Thomas, First Lieutenant and Assistant Surgeon. Died in Manila, P. I., on September 24, 1904. Cause, acute general tuberculosis miliary.

Fisher, Henry C., Major and Surgeon. Granted twenty days' leave of absence.

Geddings, Edward F., First Lieutenant and Assistant Surgeon. Left Fort Keogh, Mont., on practice march.

Gilchrist, H. L., First Lieutenant and Assistant Surgeon. In addition to his other duties will report in person to Colonel Charles L. Heismann, Assistant Surgeon-General, president of the faculty of the Army Medical School, for duty as instructor in hospital corps drill and first aid vice Captain Frederick P. Reynolds, Assistant Surgeon, relieved.

Gosman, George H. R., First Lieutenant and Assistant Surgeon. Relieved from duty at Camp George H. Thomas, Ga., and ordered to Fort Caswell, N. C.

Kiersted, H. S., First Lieutenant and Assistant Surgeon. Left Fort Myer, Va., *en route* with the battalion field artillery, for duty during target practice at Mount Gretna, Pa.

Maus, Louis M., Lieutenant-Colonel and Deputy Surgeon-General. Granted thirty days' leave of absence.

Roberts, William, First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Caswell, N. C.

Stephenson, William, Major and Surgeon. Leave of absence extended twenty days.

Stiles, Henry S., Captain and Assistant Surgeon. Sick leave of absence further extended two months.

Usher, F. M. C., First Lieutenant and Assistant Surgeon. Granted thirty days' leave of absence.

Vedder, Edward B., First Lieutenant and Assistant Surgeon. Granted one month and fourteen days' sick leave.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending October 1, 1904:

Bachmann, R. A., Assistant Surgeon. Detached from the *Supply*, and ordered to the Naval Station, Cavite, P. I.

Backus, J. W., Assistant Surgeon. Ordered to the *Southery*.

Benton, F. L., Passed Assistant Surgeon. Detached from the Naval Station, Olongapo, P. I., and ordered to the Naval Station, Cavite, P. I.

Bucher, W. H., Surgeon. Detached from the Naval Hospital, Yokohama, Japan, and ordered to the Naval Station, Olongapo, P. I.

Dennis, J. B., Surgeon. Commissioned a surgeon, with the rank of lieutenant-commander, from March 3, 1903.

Guest, M. S., Surgeon. Commissioned a surgeon, with the rank of lieutenant-commander, from January 31, 1903.

Herndon, C. G., Medical Inspector. Detached from the Naval Hospital, Yokohama, Japan, and ordered home to await orders.

Judd, H. W., Acting Assistant Surgeon. Detached from duty with the marine detachment, Dry Tortugas, Fla., and ordered to the Naval Hospital, Washingon, D. C., for treatment.

Lovering, P. A., Medical Inspector. Commissioned a medical inspector, with the rank of commander, from June 9, 1903.

McDonnell, W. N., Assistant Surgeon. Commissioned as assistant surgeon, with the rank of lieutenant (junior grade), from September 19, 1904.

Peck, A. E., Passed Assistant Surgeon. Commissioned a passed assistant surgeon, with the rank of lieutenant, from March 27, 1903.

Percy, H. T., Surgeon. Detached from the *Iowa* and ordered to duty in charge of the Naval Hospital, Yokohama, Japan.

Shiffert, H. O., Assistant Surgeon. Ordered to the *Franklin*.

Wheeler, L. H., Assistant Surgeon. Detached from duty as recorder of the naval and medical examining boards, Washington, D. C., and ordered to duty at the Naval Museum of Hygiene and Medical School, Washington, D. C.

Births, Marriages, and Deaths.

Born.

Irwin.—In Arverne-by-the-Sea, N. Y., on Thursday, September 15th, to Dr. S. Nelson Irwin and Mrs. Irwin, a son.

Young.—In Louisville, Kentucky, on Friday, September 23rd, to Dr. G. B. Young and Mrs. Young, a daughter.

Married.

Asserson—Swift.—In Richfield Springs, N. Y., on Saturday, September 24th, Dr. Frederick A. Asserson, U. S. N., and Miss Pauline Swift.

Bowdoin—Pittman.—In Newport News, Virginia, on Thursday, September 22nd, Dr. J. W. Bowdoin and Mrs. L. W. Pittman.

Brick—Clingan.—In Birdsboro, Pennsylvania, on Saturday, October 1st, Dr. Joseph Coles Brick and Miss Laura Teresa Clingan.

Graham—Ward.—In Winchester, Virginia, on Wednesday, September 28th, Dr. John Randolph Graham and Miss Belle Knight Ward.

MacAlpine—Hayward.—In New York, on Wednesday, September 28th, Dr. Kenneth Keith MacAlpine and Miss Rosalie Louisa Hayward.

MacInnes—Leroy.—In Van Kleek Hill, Canada, on Wednesday, September 21st, Dr. C. R. MacInnes and Miss Leroy.

Perkins—Kingsland.—In New York, on Wednesday, September 28th, Dr. Charles Winfield Perkins and Miss Alice Vanderpoel Kingsland.

Died.

Conrad.—In Cleveland, Ohio, on Monday, September 19th, Dr. William Conrad.

Crawford.—In Newmarket, Tennessee, on Saturday, September 24th, Dr. A. Crawford, in the sixty-ninth year of his age.

David.—In New Orleans, Louisiana, on Sunday, September 18th, Dr. George P. P. David, in the forty-sixth year of his age.

Devereux.—In Manila, Philippine Islands, on Saturday, September 24th, Dr. Thomas Devereux, U. S. A.

Gray.—In Cave Springs, Georgia, on Tuesday, September 20th, Dr. M. W. Gray.

Heath.—In New Orleans, Louisiana, on Sunday, September 18th, Dr. Henry Heath, in the sixty-fifth year of his age.

Hileman.—In Lexington, Virginia, on Wednesday, September 21st, Dr. Samuel M. Hileman.

Horwitz.—In Bar Harbor, Maine, on Wednesday, September 28th, Dr. Phineas Jonathan Horwitz, of Philadelphia.

Mackey.—In Brooklyn, N. Y., on Saturday, September 24th, Dr. John J. Mackey.

Murphy.—In Kansas City, Missouri, on Friday, September 23rd, Dr. L. G. Murphy, in the seventy-sixth year of his age.

Navarro.—In New York, on Saturday, September 24th, Dr. Juan N. Navarro, in the eighty-second year of his age.

Owens.—In Utica, N. Y., on Wednesday, September 28th, Dr. T. James Owens, in the fifty-ninth year of his age.

Purcell.—In Larchmont, N. Y., on Monday, September 26th, Dr. John Purcell, in the eighty-seventh year of his age.

Regan.—In Havana, Cuba, on Sunday, September 25th, Dr. Edward J. Regan, of New Haven.

Reynolds.—In Plymouth, Indiana, on Monday, September 26th, Dr. George R. Reynolds.

Rounds.—In Detroit, Michigan, on Sunday, September 25th, Dr. C. D. Rounds, in the fifty-second year of his age.

Scott.—In Frankford, Philadelphia, Pennsylvania, on Saturday, September 24th, Dr. Joseph B. Scott, in the forty-ninth year of his age.

Turner.—In Atlanta, Georgia, on Friday, September 23rd, Dr. Edwin Turner, in the seventy-fourth year of his age.

Vaughan.—In Norwood, Ohio, on Friday, September 16th, Dr. William D. Vaughan.

New York Medical Journal
AND
Philadelphia Medical Journal.

A Weekly Review of Medicine

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Lectures and Addresses.

A DISCUSSION ON SEVERAL NEW POINTS CONCERNING THE THEORY AND PRACTICE OF IMMUNITY.*

BY PROFESSOR A. WASSERMANN, M. D.,
BERLIN.

I am glad, gentlemen, to utilize the opportunity afforded by this visit to the United States to present to you a few new facts concerning the theory and practice of immunity. Before such an audience as this it will be unnecessary to enter deeply into the fundamental ideas of the doctrine of immunity, nor into the specific therapy so intimately connected therewith. I shall therefore confine myself above all to the experiments and studies which I, my coworkers, and my pupils have recently made in the Institute for Infectious Diseases, Berlin.

You are all aware, gentlemen, that the investigations in immunity during the past few years have been dominated by the so called side chain theory formulated by Ehrlich. You probably also know that this theory has been the subject of considerable discussion, many authors having brought forward experiments to support the theory, other authors, on the contrary, experiments to refute the same.

The theory itself is extremely simple and seeks to explain the manner in which the protective substances appear in the blood in immunity. Ehrlich began by observing that of the many poisonous substances known to us, only a comparatively small number existed against which we could truly immunize, *i. e.,* obtain specific antibodies in the blood serum of the immunized organism. Let us look at two poisons which are very similar in their physiological action, for example, strychnine and tetanus poison, both of which excite spasms through the central nervous system. It is really curious that the injection of one, strychnine, produces no antibody whatever in the serum, while the injection of the other, the tetanus poison, causes the formation of the specific tetanus antitoxine. Ehrlich says that this is because these substances enter into entirely different relations with the cells of the living organism. The one substance, strychnine, merely enters into a loose combination with the cells of the central nervous system, so that it can again be abstracted from these cells by all kinds of solvents, *e. g.,* by shaking with ether or chloroform. The combination, therefore, is a kind of solid solution, such as Witt has shown for the staining with aniline dyes. The tetanus poison, on the contrary, Ehrlich says, is firmly bound to the cell; it enters the cell itself, becoming a chemical part of the same, so that it cannot again be abstracted from the cell by solvent agents. He compares this process to the assimilation of nutrient substances. Hence the difference between these two substances could be likened to that between saccharin and sugar. Both substances taste sweet, but, despite this similarity in one of their physiological actions, they behave very differently toward the cells of the organism. Saccharin simply passes through the organism without entering into a firm combination, *i. e.,* without being assimilated, and is therefore no food. Its sweetening action is due to a mere contact effect on the cells sensitive to taste. Sugar, on the contrary, is actually bound by the cells, assimilated and burnt, so that it is a true food. Ehrlich says that the first requirement for every substance against which we can obtain a specific serum must be its power to enter into such a combination with certain particular cells in the living organism. The substance must possess a definite chemical affinity for certain parts of the organism. Hence in each substance against which we can specifically immunize, Ehrlich distinguishes a group which effects the specific binding to certain cells, the *haptophore group.* Corresponding to this is a group on the cell of the living organism, the *receptor group,* with which the haptophore group combines. The latter is entirely distinct from that part of the substance which exerts the physiological or pathological effect, in toxines, for example, from the group which is the carrier of the poisonous action, the so called *toxophore group,* or in ferments, from the group which exerts the ferment action, the *zymophore group.* Both groups, haptophore and functional, are independent of each other, and their separate presence can easily be demonstrated because the functional group, *e. g.*, in poisonous toxines the toxophore group, is more readily destroyed by heat than the haptophore group. Thus by heating a toxine for some time to 140° to 158° F. substances will be obtained which are no longer poisonous, but which still possess the binding, haptophore, group. In the case of toxines such substances are called *toxoids*. Ehrlich further stated that the finer mechanism of the formation of specific substances was this, that the haptophore group was bound to the receptor of the living organism owing to a specific affinity. As a result of this the receptor is lost to the living organism, disposed of, and a biological law formulated by Weigert now comes into action, the law of supercompensation. That is, the organism seeks to replace this defect, but in doing so not merely replaces the receptors in question, but, according to Weigert, produces more of them than were previously present. The conditions are somewhat like those seen in the callus after a fracture, in which the organism likewise does not produce just the amount of bone previously present; there is always an overproduction.

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* An address delivered before the New York Pathological Society, September 14, 1904.

In this way, Ehrlich says, such a large number of receptors are produced by the organism that these become too much for the same; they are then thrust off into the blood as ballast, and these free receptors, circulating in the blood constitute the specific antibodies. Ehrlich therefore believes that the specific antibodies in the serum are nothing else than receptors for which the substance employed in immunization possesses specific affinity. Hence the same substance which, so long as it remains in the organ, attracts the toxine and makes it possible for that to exert its poisonous action on the organ, this same substance acts as a protection when it circulates outside of the organ; for then it satisfies the affinity of the poison's haptophore group while still in the blood, preventing the poison molecule from acting on the organ itself.

In the formation of the specific antibodies we must therefore distinguish three stages:

1. The binding of the haptophore group to the receptor.
2. The increased production of the receptors following this binding.
3. The thrusting off of these increased receptors into the blood.

A great deal of what I have just spoken to you has already been confirmed experimentally. For example, the presence of the separate groups and of the haptophore group; the existence of specific binding properties for certain cells, in all substances with which we can immunize; and much more. These matters, which go back several years, I shall not here discuss, but shall pass at once to several new experiments of which I made mention at the outset.

Until recently there was a gap in our experimental demonstrations in this respect, that the existence of the second stage, the increased production of receptors following the binding of the haptophore group to the receptor, had not been experimentally demonstrated. I believe that I and my fellow worker Bruck have now been successful in this.

We employed a tetanus poison which I had kept since 1896. This poison was originally very poisonous. In the course of years, however, owing to the damaging influence of this long standing, that is, owing to the action of light, the oxygen of the air, etc., it had become so weak that it was no longer toxic at all. I was able to give a guinea pig one c.c. without producing tetanus. Nevertheless the haptophore group had remained intact, as could readily be proved, for this non-poisonous tetanus toxine was still able to bind tetanus antitoxine, *i. e.*, thrust off receptors. We are therefore dealing with a completely non-poisonous tetanus toxoid. When I injected rabbits with this non-poisonous tetanus toxoid in increasing doses, and then examined the blood serum of the animal, I found *not a trace of tetanus antitoxine*. The absence of antitoxine in this experiment could have either of two causes:

1. It might be that the toxoid no longer produced any physiological effect whatever in the organism; or
2. Although it still caused an increase in the receptors, these increased receptors remained in the organism (sessile), and were not thrust off into the blood.

In order to decide this question we first determined the exact quantity of fresh tetanus toxine which constituted a fatal dose for guinea pigs. If, now, the action of the tetanus toxoid was such that in the living organism it was *not* bound to the receptors, it should be possible to prove this experimentally.

Our line of reasoning was as follows: Were we to inject first the toxoid, and shortly after, say, in one to two hours, the fresh toxine, we should in such an animal have to increase the fatal dose, *i. e.*, we should require more tetanus toxine to kill this animal than a normal one, because owing to the previous toxoid injection part of the cells susceptible to tetanus toxine had already been occupied. Provided Ehrlich's theory was correct, so that this binding of the toxoid really occurred, the conditions should be entirely different when, instead of injecting the toxine shortly after the toxoid, I waited somewhat longer, one to three days, and then injected the fresh tetanus toxine. For in that case Weigert's law should come into play and the receptors have commenced to increase in number, *i. e.*, the organ would now possess more sensitive groups than before. This would have to manifest itself in such fashion that in contrast to the first experiment the fatal dose of fresh tetanus toxine could now be decreased; in other words, a small dose would now tetanize the animal in a shorter time.

As a matter of fact, the experiments yielded results which were exactly like those deduced theoretically as just described. I injected a guinea pig with some of the non-poisonous toxoid, and then, one hour later, with the tetanus toxine. I found that much more toxine was required to kill this animal than a normal guinea pig of equal size. If, on the contrary, I waited one to three days, it was found that then a dose of tetanus toxine which would not even tetanize a normal guinea pig was sufficient to kill this one.

I believe that if we keep this series of experiments in mind we shall find that it furnishes for the first time experimental proof of the existence of the three stages demanded by Ehrlich's theory. The first stage, the binding of the haptophore group, we have demonstrated with our toxoid; the second stage, the increased production of receptors, is demonstrated by the second series of experiments just described; the third stage is the thrusting off of the receptors. Close attention to these experiments will have shown you that with our completely non-poisonous toxoid we did not effect this thrusting off at all. The serum of the rabbit treated with this toxoid contained no antitoxine whatever. Hence it follows that the thrusting off of the receptors into the blood serum cannot be a function solely of the haptophore group, but that something additional is required. This "something," which we may term a stimulus, is a function of the toxophore group, as I have been able to show experimentally. Because of these experiments I conceive the mechanism of the binding of the specific antibodies in the serum to be as follows: 1. The haptophore group is bound by the receptor. 2. The consequence of this binding is a proliferation of the receptors. In this stage, however, they are still attached to the organ. 3. In order that they be thrust off, a certain stimulus is required. The haptophore group is incapable of exerting this, so that, in the case of tetanus toxine, this is exerted by the toxophore group.

So much, gentlemen, for the mechanism of the formation of these substances, especially of the antitoxines.

Another point, not only of theoretical but also of practical interest, and one which I shall therefore discuss, is that concerning the action of antitoxines on toxines, a question on which really the entire system of serum therapy rests. As you may know, just this action of antitoxine on toxine has recently been the subject of extended scientific investigations from the standpoint of physical chemistry. Particularly Arrhenius and Madsen have tried to explain these relations purely according to the laws of that science.

Together with my coworker Bruck I have been able to show, especially for tetanus toxine and its corresponding antitoxine, that this action also can be divided into several stages, entirely in harmony with the views of Ehrlich. The first stage consists in a loose association of the two substances. This is followed by a true chemical union, which becomes firmer as time goes on. The manner in which we are able to demonstrate this in the living organism —and only in this can we obtain results of value to the physician—is seen in the following experiment.

We know from the researches of Meyer and Ransom that tetanus *poison* is not absorbed by way of the blood and lymph channels, but reaches the central nervous system by way of the nerves. Following its injection the tetanus poison ascends in the axis cylinder of the nerves to the motor cells. The tetanus *antitoxine* unlike the toxine is not a neurotropic substance, but always follows the blood and lymph channels. In adrenalin, discovered by Takamine, we possess a substance which is able strongly to contract the capillaries and thus to block the blood absorption path of a particular area. Proceeding from these facts, I devised the following experiment: Tetanus toxine and antitoxine were mixed in such proportions that the mixture was entirely innocuous to animals, *i. e.*, it was neutral. If this mixture was injected into the hind paw of a guinea pig no tetanus developed. When, however, I injected some adrenalin into the hind paw of a similar sized guinea pig, and waited a few minutes until the capillaries had contracted, and then injected my mixture of tetanus toxine and antitoxine, typical tetanus was produced. What happened was this, that the channel of absorption for the tetanus antitoxine had been blocked, while that for the toxine, the nerve path, was open. The toxine had therefore torn loose from its combination and followed its course to the central nervous system, where it produced tetanus.

This experiment, however, succeeds only within a certain period, *i. e.*, not over an hour after mixing the toxine and antitoxine. If we wait a longer time, say, three or four hours, it will be found that even in the adrenalin animal no tetanus is produced, because by this time the combination, previously a loose one, is so firm that the substances can no longer be torn apart. This union can be hastened by employing more tetanus antitoxine, for with an excess of antitoxine even after only half an hour it is impossible by means of adrenalin to loosen the tetanus toxine. This experiment, therefore, shows that the tetanus toxine-antitoxine combination is at first a loose one, and that the affinity becomes firmer and firmer with time. It also shows the possibility of increasing this affinity by means of large doses of antitoxine, a point of considerable practical value in serum therapy.

This increase in the firmness of the combination and these several stages, both of which can be demonstrated in the living organism as just described, are not easily reconciled with the views of Arrhenius and Madsen. However, I shall not enter further into these purely technical and theoretical questions, but rather turn to the more practical results of the investigations in immunity.

In this connection I shall first speak of the finer structure of the antibodies in the serum, a point of great practical importance, as you will shortly see. According to Ehrlich's theory, as you may recall, every immunizing group in a substance corresponds to a counter group of the fitting receptors in the organism. Now, we can demonstrate that the body of certain bacteria, *e. g., streptococci* or *Bacterium coli*, is not a homogeneous mass, but is made up of various molecules which differ biologically from one another. Conforming to this, the antibody which appears in a serum is made up of the sum of the single receptors which correspond to these partial elements in the bacterial body. These separate groups are called " partial groups." A serum therefore consists of the partial groups. An immune serum therefore consists of the partial groups which correspond to the separate partial elements of the bacterial body. We are further able to show that these partial elements in one and the same bacterial species are not the same for all the bacteria of that species. Thus one culture of streptococci or *Bacterium coli* may have a few partial elements which differ from those of another culture. What is the consequence of this? The consequence will be that when we immunize with a culture *a* of such bacteria we shall obtain a serum which acts completely on this culture, for in this serum all the partial elements present in culture *a* are represented. If, however, we employ culture *b, c,* or *d,* which perhaps possess other partial elements, we shall find that the serum does not completely affect these cultures. As already stated, such a condition of things is met with in streptococci, in hog cholera, and in other bacteria, and is therefore of considerable practical importance. It is because of this fact that such a serum acts only in a limited number of cases and not in others. In order to overcome this difficulty in these bacterial species we have no choice but to make sera, not by means of *one* culture, but by means of a number of different cultures of the same species. The result of this will be that, corresponding to the various partial elements in these different cultures, we shall obtain a serum containing a large number of the partial groups. Such a serum will then exert a specific action on a large number of different cultures.

In other words, the development and the closer analysis of the problem of immunity, especially during the past few years, have shown us that we must make use, more than heretofore, of so called *polyvalent* sera. In passing I may say that the term " polyvalent " seems unfortunately chosen, and therefore, in order to indicate that such a serum differs from a monovalent serum (one derived by means of a single culture), I always use the term *multipartial.* Such a serum, then, contains a number of partial elements. In the serum therapy of streptococci, of *Bacterium coli,* of the excitants of certain hæmorrhagic septicæmias, and, as we shall at once see, to a certain extent also in diphtheria, I consider the production of such multipartial sera absolutely necessary in practice. Owing to these partial groups also, a serum, *e. g.,* typhoid serum, can specifically affect a closely allied species of bacterium, like *Bacterium coli,* for example. For it is known that closely related species of bacteria, such as typhoid and *Bacterium coli,* possess certain partial groups in common, and a serum is thus produced which to a certain extent acts on both species. This constitutes what is familiar to you as the " group reaction."

This principle of the production of multipartial sera is also of considerable importance to species to which heretofore it was not thought to apply. This is illustrated by a new diphtheria serum which I described in a short communication about a year and a half ago.

As you are all aware, we have thus far in practice made use only of Behring's antitoxic diphtheria serum, *i. e.,* one which acts only on the toxine of the diphtheria bacilli, but not on the bacilli themselves nor on the bacterial cell substance. I have recently called attention to the fact that it is possible to obtain a serum which acts on the diphtheria bacilli themselves. Such a serum is obtained when, under certain conditions, diphtheria bacilli in large numbers are inoculated into animals. This serum causes a precipitation of the substance contained in the cell bodies of the diphtheria bacilli, and agglutinates them. Schwone, of Vienna, was able to show that a serum obtained by treatment with a single culture of diphtheria acted only on a limited number of diphtheria cultures; and that, in order to obtain a serum specifically affecting all cultures equally, it was necessary to treat the animal with a large number of different diphtheria cultures, in other words, to make a multipartial serum. In this way it has been possible to obtain sera which, in dilutions of 1 : 5000 or over, specifically agglutinate all cultures of diphtheria thus far examined. Like Martin, of the Pasteur Institute, I have therefore sought to determine whether any practical application could be made of this serum, which, in contrast to the antitoxic serum, acts on the bacilli themselves.

You are well aware that a great difficulty in combating diphtheria is this: that in healthy children, but especially in diphtheria convalescents, despite the use of antitoxine, the diphtheria bacilli often remain in the nasopharynx for a very long time. This is extremely annoying, because a child so affected cannot be sent to school until all diphtheria bacilli have disappeared from the nasopharynx. I have therefore proceeded as follows: A strongly agglutinating, multipartial diphtheria serum is evaporated to dryness *in vacuo,* mixed with sugar of milk, pulverized, and pressed into tablets. These tablets when dissolved in the mouth cause the fluids in the mouth to become strongly agglutinating. The question was, and is, whether this process of agglutination will help us to get rid of the diphtheria bacilli from the nasopharynx more quickly and surely than was heretofore possible. The clinical experiments thus far made speak in favor of the employment of this serum. Whereas it is no rarity for diphtheria bacilli to be present in the throats of convalescents for weeks, it has been found that in the cases in which these tablets have been used the bacilli disappeared within a few days.

My usual method is this: A tablet is allowed to dissolve in the mouth about every two hours, and then, after fifteen minutes, the child's nasopharynx is rinsed out with an indifferent fluid in the form of a spray or gargle. I conceive the action to be such that, whereas when this serum is not employed the diphtheria bacilli are scattered diffusely throughout the nasopharynx, under the influence of this serum they are agglutinated or clumped together. One might liken the process to that by which we remove dirt scattered about in a room. The dirt is swept together and can then be readily removed. The diphtheria bacilli are massed together more or less by the serum, and these clumps are then removed by the subsequent rinsing. In this way they are so much decreased in amount that the natural power of the organism is able much more quickly to make away with those remaining. I am in hopes that this new diphtheria serum will be destined to be of great service, especially in making prophylaxis easier and in making it possible to send the diphtheria convalescents to school earlier than heretofore.

But not only for serum therapy is my view of the employment of many different kinds of diphtheria cultures of value; I believe that it is equally important for active immunization, *i. e.,* for protection against an infection by means of dead bacteria. In the future such a serum, made by the simultaneous inoculation of various races of one and the same or closely related species of bacteria, will play a more and more important rôle.

You see, gentlemen, that in the subject on which I have spoken this evening, theory is not merely of academic interest, but, on the contrary, plays an eminently practical rôle; and that in the present state of our knowledge we are only then able to further practical science when we carefully regard the theoretical side of this study and, by means of experiment, seek to extend its application.

The principal object of my lecture is to make plain this intimate connection between theory and practice, and this I have attempted to do by means of a few illustrations. In closing, gentlemen, I wish to express my appreciation for the opportunity given me to address this assembly.

The Cleveland Tuberculosis Dispensary.—That Cleveland is soon to have a dispensary designed exclusively for the treatment of patients with tuberculosis is the announcement made in the September number of the *Cleveland Medical Journal.* The Cleveland dispensary will not be the first dispensary for tuberculosis in the country, but it probably will be the first to participate actively in the campaign against the disease that will be waged by the National Association for the Study and Prevention of Tuberculosis, organized at the recent meeting of the American Medical Association at Atlantic City. The new association intends to study tuberculosis in all of its forms and relations, to spread the knowledge gained about the causes, treatment, and prevention of tuberculosis, and to encourage the prevention and scientific treatment of the disease. Through the dispensary all cases of tuberculosis coming to its attention will be carefully and systematically watched with a view to preventing subsequent infection and curing the disease when possible. The plan includes the registration and inspection of patients with consumption, and the dispensary will in some way, possibly through the agency of the Associated Charities, give aid to patients requiring it. Already the Visiting Nurses' Association has a nurse who devotes her whole time to tuberculosis cases, and she will continue in that work under the direction of the dispensary. The location for the dispensary has not definitely been settled, but it is thought that the old general dispensary rooms of the Western Reserve Medical College will be used. From the general dispensaries in the city it is expected that patients with tuberculosis will be referred to this special dispensary, both because more attention would be assured and because it would remove possible sources of infection for other patients and the physicians and nurses in attendance.

AIDS TO THE RECOGNITION OF DISEASE.*

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Ladies and Gentlemen:

In obedience to the command of the faculty it becomes my pleasant duty to extend to each of you, in their name, a hearty, thrice hearty welcome. When I gaze into your bright faces so full of hope and determination, I wish I could speak to you with some of the eloquence possessed by those who discharged this duty in previous years.

To-day marks the commencement of the labors of the college year. Let us therefore join hands as friends, always remembering that your faculty has a deep and personal interest in the welfare of each student. As the youngest member of this body, it is eminently proper for me to tell you that it has long been known that the faculty of the Medico-Chirurgical College comes in closer and more frequent personal contact with the students than any other similar teaching body in Philadelphia.

The selection of a subject for an occasion like the present is not easy, despite the wide range that custom permits. As your lives will be devoted to the prevention and cure of disease, it may be advantageous to address ourselves to questions concerning Aids to the Recognition of Disease.

More than two thousand years ago, in the days of Hippocrates, anatomy, physiology, pathology, physics, and chemistry were practically unknown. Knowledge of disease was based upon symptoms, the pulse, the respiration, the naked eye appearance of the body, its secretions and excretions, the limited use of palpation, and such changes in temperature as could be detected by the hand. It is but natural, therefore, that false concepts existed regarding disease. As deafness increases vision, so the limitations surrounding Hippocrates increased his power of observation. His descriptions of diseases are remarkable for their fidelity, and his recorded observations of the face of the dying are unsurpassed.

The power of observation is given to all in varying degrees; with some it is a gift, with others constant training is required until it becomes one of the strongest and most satisfactory aids to the recognition of disease. The educated and well trained observer should not restrict himself to the physiognomy and the external portion of the body, and its various inlets and outlets, but should give careful heed to the manner and words that the patients employ in describing symptoms. Variations in the rate of utterance, alterations in the sequence of ideas and change in the quality of the voice, and the rapidly moving countenance, all give valuable information as to the cerebral condition of the patient. It is true that physicians of the prescientific period were far more observant than those of to-day. The many examinations and the employment of numerous instruments of precision give the modern physician a multitude of facts the obtaining of which exacts so much time and skill that his inferiority to the physician of the older period, in the direct observation of the sick, is not surprising. This fault is widely prevalent and indicates sloth, carelessness, lack of capacity, or ignorance. Minute and comprehensive observation of the sick is a fundamental requisite which must not be slighted or neglected. Despite the fact that the mass of evidence gathered in the scientific study of a chronic disease is so great, and the amount of time, attention, and skill exacted of the examiner so considerable, we must not overlook the supreme importance of the correct interpretation of these observed facts, which interpretation is ofttimes considerably influenced by the results of minute direct observation of the one suffering from disease.

No instrument of precision exists for the determination of the relative value of the various symptoms of which a patient complains, some of which may be purely imaginary, so that it is a matter of no little importance to give attention to every detail while the patient is describing his abnormal sensations, and by minute cross examination, endeavor to arrive at a just appreciation of his sensations. The acquisition of this ability is difficult and not only calls into play the resources of a well stored medical brain, but also taxes to the utmost your knowledge of human nature and the mode of life and thought of the various individuals who make up the community in which you dwell. Human testimony is proverbially uncertain, which uncertainty is more thoroughly appreciated by the legal than by the medical profession. The arrangement of accumulated observations in the order of their importance, so that one may appreciate their interdependence and correlation, and give to each logical consideration, is an exercise of the mind too often the neglect of which renders correct deductions impossible. I therefore strongly urge upon your attention the prime importance of active and trained cerebration.

As has already been said, in the early history of medicine, diagnosis was limited to the recognition of symptoms, then considered diseases, such as dropsy and jaundice. To-day dropsy is known to be a symptom of many disorders, and in making a diagnosis we must ascertain if this symptom is due to the blood, as in pernicious anæmia; to the heart, and if so, whether the morbid process is in the membranes covering its interior or exterior; to changes in the valves, orifices, cavities, or muscles; to alterations in the general circulation, or that which nourishes the heart, or to disease of the walls of these vessels, or to interference with their lumen by foreign bodies lodged within or by pressure from without. Dropsy may be due to diseases of the lungs, as in emphysema, of the liver, as in cirrhosis, of the kidneys, as in Bright's disease, of the nervous system, as in angeioneurotic œdema, of the lymphatic system, as in lymphangeitis, or to parasites, such as the filaria or the bacillus of malignant œdema. The precise nature of the morbid process must be determined as well as the exact cause or causes that finally produced such alterations as to permit of the occurrence of so marked and common a symptom as that of dropsy.

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* An introductory lecture to the Medico-Chirurgical College, session of 1904-1905.

Modern diagnosis may be subdivided into the ætiological, the anatomical, the pathological, the bacteriological, the topographical, the clinical, the differential, the presumptive, and the retrospective, and, last but not least, the therapeutic.

The recognition of disease was coincident with the beginning of the study of anatomy and the discovery of the circulation of the blood by Harvey a little more than three centuries ago. About this time Galileo invented the thermometer, which made possible the measurement and recording of the temperature of the body, the value of which, in the recognition of disease, is now fully appreciated. As with other great discoveries, the thermometer attracted but little attention and was seldom used, and, strange as it may seem, there are physicians living to-day who easily recall the time when its employment was almost unknown. In the Philadelphia Hospital its use began in 1875.

To Wunderlich[1] we owe our gratitude for placing in book form the results of sixteen years' study of thermometry, by which the profession was convinced of its great value. It is a pleasure to record that the author's hopes have been realized and that he did "offer his medical brethren a useful and usable clue to enable them to discover the true value of thermometric data." It is difficult to estimate the enormous value of thermometry as an aid to diagnosis, as it is difficult to appreciate the amount of suffering and the number of lives that have been saved through its instrumentality.

In the words of Wunderlich,[2] "The use of the thermometer in disease is therefore an objective physical method of investigation which gives exact and accurate results in signs which can be measured and expressed numerically; which is delicate enough to follow every step in the changing process of the organism, and places at the disposal of the practitioner a phenomenon dependent upon the sum total of the organic changes of the body."

A partial realization of the value of the thermometer will be experienced if we imagine ourselves endeavoring to diagnosticate, without its aid, the eruptive fevers, rheumatism, malaria, and pulmonary tuberculosis.

According to Mitchell,[3] Hermann Kepler was the first to count the pulse, and Galileo, observing the unerring regularity of the swing of a suspended lamp, conceived the idea of marking with a pendulum its rate and variations. The watch was first used in the beginning of the eighteenth century, and by its aid, for the first time, an accurate count of the pulse and a method of recording it began.

Auenbrugger,[4] in 1761, gave to the world his discovery of percussion, after seven years of observation and reflection, which discovery slumbered nearly half a century before it was rediscovered by Corvisart, from which time its great value began to be appreciated. This sign, one of the most important aids to physical diagnosis, gave information which was otherwise unobtainable, and then for the first time diseases of the lungs and effusions into the pleural and pericardial cavities were accurately recognized. This method is now in universal use and is indispensable to the diagnosis of various morbid conditions, especially those within the thoracic and abdominal cavities. Numerous modifications have been suggested from time to time, the most valuable of which is the simultaneous employment of auscultation with percussion.

In 1818 Laennec,[5] after two years of study and observation, communicated his discovery of auscultation to the French Academy of Science, and in the succeeding year published his treatise upon *Mediate Auscultation.* The story of the inception of this discovery is interesting.

"One day, while traversing the court of the

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[1] *Medical Thermometry.* The New Sydenham Society, London, 1871.

[2] *Op. cit.*

[3] History of Instrumental Precision in Medicine. *University Medical Magazine,* October, 1891.

[4] Auenbrugger and Laennec, the Discoverers of Auscultation. Edward Otis. *Transactions of the American Climatological Association,* XLV, 1898.

[5] *Ibid.*

Louvre, he perceived some children amusing themselves by applying the ear to the two extremities of a long beam or piece of wood and transmitting reciprocally the light sound arising from the blow of the finger against the opposite end. In the intermediate space no sound was perceptible. Laennec reflected upon this, and some days after, on being consulted by a young woman presenting the general symptoms of cardiac disease, with whom percussion was unsatisfactory on account of her stoutness, and her age and sex prohibiting the direct application of the ear to the chest, he recalled the children in the court of the Louvre. Immediately he took a quire of paper and made a tight roll, one end of which he applied to the chest of the young girl and the other to his ear. With delight he found that in this way he perceived much more plainly the beating of the heart. Richardson[6] cleverly comments upon this story by saying that ' the discovery of auscultation waited for that fat young lady with heart disease, whose chest could not be touched by ears polite, for the quire of paper that admitted of being rolled into a tube for listening through, and for this man Laennec to do the part of thoracic eavesdropper.' " The far reaching influence of this discovery is to-day plainly apparent and marks one of the most brilliant pages in the history of medicine.

The stethoscope, as well as the thermometer, is now an absolute necessity to every physician. Upon it rests the diagnosis of morbid changes in the heart, its valves and orifices, and by its aid diagnosis of diseases of the lungs and pleuræ is facilitated. Our own Anders has successfully employed auscultation in the detection of gallstones in the gall bladder.

The wonders that have been, are, and will be revealed by the microscope excite in the mind of every true physician a feeling of intense admiration, verging on reverence, for the genius who conceived and perfected this magnificent instrument of precision. The astronomer, doubtless, experiences similar feelings regarding Roger Bacon, the discoverer of the telescope. Without the microscope we would be ignorant of all the tissues, secretions, and excretions of the body, both normal and abnormal, that are invisible to the naked eye, and many of the well known diseases of the various organs of the body, and most of those affections, dependent upon animal and vegetable parasites, would have remained undiscovered.

This instrument is indispensable to every physician, no matter in what domain of medicine he may be working. It is almost incredible, yet true, that within the memory of physicians yet living in this city there was a time when but few knew how to employ this instrument. The history of the microscope illustrates the extraordinary rapidity of the progress in medicine during the past fifty years. I believe that greater advance has been made during the past hundred years than in all the preceding centuries.

Gowers[7] states that " the ophthalmoscope permits of the observation of: (1) The termination of an artery and the commencement of a vein and the blood circulating within them. (2) The termination of a nerve, which, from its close proximity to the brain, and from other circumstances, possesses significant relations to the rest of the nervous system. (3) A nervous structure, the retina, which suffers in a peculiar way in many general diseases. (4) A vascular structure, the chorioid, which also presents changes in certain constitutional affections." From these fundamental facts it is easy to appreciate the intimate and close relationship that exists between ophthalmoscopy and internal medicine, and its value as a diagnostic instrument. By its aid data may be secured, which, together with other signs, clearly point to certain functional and organic diseases of the nervous, the cardiovascular, the urinary, and blood systems, as well as to many chronic general maladies, among which may be mentioned tuberculosis, syphilis, rheumatism, gout, and poisoning by lead, alcohol, and tobacco. From that brilliant ophthalmic surgeon, Dr. Fox, you will hear more of the ophthalmoscope as a diagnostic instrument during the coming year.

The pulse tracer, or sphygmograph, by which are recorded the pulse waves, is an instrument requiring special care in its use. It is employed in therapeutic research and as an aid to the study of the pulse, but is of limited value in clinical work. More recently the Riva-Rocci blood pressure indicator has been shedding a new light upon variations in blood pressure, under normal and abnormal conditions, and is destined to occupy a permanent place in medicine.

The laryngoscope and rhinoscope are instruments of the greatest value in the recognition of diseases of the posterior nares, larynx, and trachea. It makes visible many abnormal conditions which would otherwise be obscure, and its relations to general medicine are most valuable. I shall give but a single example of its value in the recognition of disease by mentioning the ease with which unilateral paralysis of the vocal cords may be recognized; and this, in association with displacement of the trachea, is a useful sign in thoracic aneurysm.

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[6] Laennec. Benjamin Ward Richardson. *The Asclepiad*, V, 1888.

[7] *Medical Ophthalmoscopy.* W. R. Gowers. Second edition, London, 1882.

The diagnostic value of the otoscope and the tuning fork is firmly established.

The recognition of certain diseases of the nervous system has been greatly aided by the employment of faradaic, galvanic, and static electricity, the manometer, the æsthesiometer, and by percussion of tendons by means of a rubber hammer. The invaluable services of the ophthalmoscope and thermometer must not be forgotten in this connection.

Accuracy in the diagnosis of diseases of the stomach began when Kussmaul, in 1869, first used the stomach pump and the tube, and in like manner the diagnosis of diseases of the intestines has been aided by the use of the colon tube.

The centrifuge, by precipitating sediment from the urine, sputum, and other fluids, is an instrument now in almost universal use, and has contributed to the diagnosis of many maladies.

The recognition of certain morbid states of the blood and their proper differentiation are comparatively new, and in this work the microscope has played the largest rôle. The counting of the red and white blood cells, by means of the hæmocytometer, and their volumetric estimation by the hæmatocrite, have given exact information, by the aid of which diseases presenting similar clinical pictures may be differentiated, particularly when these data are conjoined with that obtained from the hæmometer, by which the percentage of the hæmoglobin may be determined. The enumeration, staining, and microscopical study of the white blood cells, in order to learn whether they vary from normal, and the differential count, by which the number of the different forms of leucocytes may be ascertained, have also aided in the diagnosis, not only of diseases of the blood, but also of other organs.

Röntgen, in 1895, stated that he was able to penetrate opaque objects by what he called the x ray. This announcement was received with astonishment, not unmixed with incredulity. All now recognize its extraordinary value for diagnostic and other purposes, and its use, which is already general, is daily extending. To be able to see the heart beating, an aneurysm pulsating, the diaphragm moving with each inspiration and expiration, was never conceived of by the fathers of medicine. To-day the diagnosis of a pleural or pericardial effusion, a cerebral tumor or abscess, a fracture, a dislocation, a stone in the kidney, ureter, or bladder, is seldom completed without the corroborative evidence offered by those most wonderful and remarkable of all our recent aids to diagnosis, the fluoroscope and radiograph. Dr. Pfahler has made for himself an enviable reputation in this field.

That gentle scholar and true physician, Da Costa,[8] overwhelmed by the rapidity with which one new discovery followed upon the heels of another, forecast the practice of medicine of the future in the following delightfully humorous, though slightly satirical language: "Madam is in her boudoir, reclining on the sofa, in expectation of her medical attendants. A drag drives up, from which alight two servants with heavy bags, who assist four doctors to descend. The fraternity is announced and followed by the servants enter the room. The bags are deposited; the servants withdraw, and after the exchange of a few remarks, the examination begins. Dr. Ready, the junior practitioner, conducts the first inquiries, makes the ordinary investigation of the different organs, and before finishing pulls out of his pocket a tablet containing the volumetric examination of every fluid of the body, completed since the last visit. This is looked at by all. Dr. Reckoner then takes traces of the movements of the heart, of the pulse, of the actions of the muscles, records of the velocity of their contraction, and estimates the amount of nerve supply; showing the diagrams and figures to the patient, who inspects them with the look of a connoisseur. Dr. Eyeman now applies the improved ophthalmoscope, which photographs as well as is used to see by. Again Madam shows active interest and declares that the picture is very pretty. A mysterious nodding and whispering takes place. There has been indigestion with pain at the pit of the stomach—can there be anything wrong with the bloodvessels there? Dr. Magnet, who is a very accomplished physicist, steps forward: 'If you will permit me, I will make you transparent.' And by means of a modified, portable Ruhmkorff coil, and an instrument with lenses dexterously passed into the stomach, the fair patient is really rendered transparent. The examination is completed; fortunately no serious lesions exist, and a consultation held in the next room results in the advice to take a few glasses of soda water and a daily ride on horseback."

To-day, thirty-two years later, it is not at all uncommon that a person seriously ill requires the aid of four or more skilled specialists and that a carriage is necessary for the transportation of the x ray apparatus, electric batteries, the microscope, and other instruments employed in the examination of the blood and circulatory apparatus. Dr. Ready does prepare a variety of laboratory reports upon the fluids of the body and Dr. Reckoner often finds it necessary to employ the sphygmograph, the blood pressure indicator, or electrical and other instruments to determine the condition of the cardiovascular, the nervous, and muscular systems. Dr. Eyeman quite frequently presents his ophthalmoscope findings, together with a very " pretty picture " showing the fields of color and vision; and Dr. Magnet is able, by the use of the x ray to make the body transparent and to illuminate the stomach by the introduction of an electric light.

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[8] *An Address Upon Modern Medicine.* Philadelphia, 1872.

The advance in our knowledge of physics and chemistry during the past two generations has been perhaps more rapid than that of any other department of medicine, and to this great science of chemistry diagnosis owes an enormous debt of gratitude, which is yearly increasing. The discovery of free hydrochloric acid and pepsin laid the foundation for correct concepts regarding a number of affections of this organ, and the determination of the amount of this acid, or its absence, is a most important sign of certain of these diseases. In the recognition of diabetes and diseases of the kidneys we have grown to depend largely upon the discovery of sugar and albumin in the urine. The discovery of oxybutyric acid, or acetoacetic acid, is often the first signal of an oncoming coma of diabetic origin. The large and important subject of toxæmia, more especially of intestinal origin, is ofttimes revealed by finding indican and scatol in the urine; and abnormal changes in metabolism are sometimes suggested by the detection of acetonuria. These are but a few examples of the extraordinary value of chemistry as an aid to the recognition of disease, and many more may be cited. You are fortunate in falling under the instruction of Dr. Meeker, who will arouse your enthusiasm by pointing out the great practical importance of a knowledge of chemistry as an aid to the recognition of disease.

The intelligent use of instruments of precision in the recognition of many diseases, organic or functional, would be difficult or impossible, in the absence of exact anatomical and physiological knowledge. Unfortunately, time forbids dwelling upon examples that may be cited illustrating the intimate relationship existing between these fundamental branches of medicine and diagnosis.

The continued splendid progress of pathology and bacteriology during recent years has enriched our knowledge by demonstrating the true nature of many diseases. The clinician's diagnosis is, in many maladies, entirely dependent upon his knowledge of pathology and bacteriology, and many affections apparently similar are now easily differentiated with absolute certainty.

It is necessary to allude to a few important illustrations, as, for example, the diagnosis of tuberculosis by means of the tubercle bacillus, of malaria by the malarial parasite in the blood, of diphtheria by the Klebs-Loeffler bacillus, and of typhoid fever by the Widal reaction. Your enthusiastic professor of pathology, Dr. McFarland, will give you in detail many more examples of the relationship of pathology and bacteriology to the recognition of disease.

In certain conditions where diagnosis is impossible modern surgery is able to reveal the truth; moreover, greater accuracy in diagnosis enables the surgeon to plan operations which he would otherwise hesitate to undertake. The exact nature of many obscure diseases within the cranial, abdominal, and pelvic cavities may be demonstrated by the aid of surgery.

It is scarcely necessary to enumerate the diagnostic instruments peculiar in this important domain of medicine, since they are familiar because of their constant employment in the clinics of Dr. Laplace, Dr. Rodman, and Dr. Ashton. I must not, however, omit to mention the aspirator, by which fluids may be removed from the various cavities of the body, the examination of which frequently establishes the true nature of the disease; the endoscope, urethral and ureteral catheter, and the sound are a few of the many instruments of precision employed in the investigation of certain organs, cavities, and canals of the body. Bacteriology has given therapeutics the antitoxine treatment of disease, and the advance in ætiological diagnosis is responsible for the growth of preventive medicine. Further advances in the pathological and ætiological recognition of disease, will pave the way for greater advances in therapeutics.

The relation of diagnosis to therapeutics is reciprocal. Accuracy in diagnosis permits the therapeutist scientifically to select those agents that do most good, and occasionally the diagnostician calls to his aid the resources of therapy. The specific action of quinine has been employed to differentiate malaria from other affections, but the detection in the blood of the malarial parasite renders this procedure unnecessary. The remarkable tolerance to the iodine salts of those suffering from syphilis is sometimes useful as an aid to the recognition of this disease. Occasionally, when the heart is acting feebly, irregularly, and rapidly, an indistinct murmur may be accentuated and correctly studied by increasing the force and lessening the frequency and irregularity of the action of the heart by the administration of digitalis.

The numerous examples of interdependence of diagnosis and therapeutics, of which I have given but one or two, will be demonstrated to you by Professor Shoemaker, in whom are happily combined the thoughtful therapeutist and skilled physician.

In conclusion, allow me to repeat the words of Stillé:[9] "Every young physician must, indeed, begin his career chiefly among the vulgar and illiterate, but in due time, and all the sooner the better he is prepared for it, he will enter the circle of the intelligent, the educated, and the refined, and then, if he is a mere dispenser of drugs or brandisher of instruments, he will fail to gain their esteem as a man, even while he commands their employment of him as a helper in their emergencies. But if he is a man of liberal education, of cultivated intelligence and taste, and has that large humanity which makes him feel instinctively that his patients are not diseases or injuries, but suffering human beings who may be influenced by psychical as well as physical agencies, he will learn that mental medicine is often more potent than drugs, and that if in his therapeutics he has not included this agency, he lacks one half of the power he ought to possess."

A Note on the Treatment of Syphilis.—Jonathan Hutchinson in the *Practitioner* for August, 1904, calls attention to the statement of Astruc, uttered so long ago, that mercury was the remedy above all others for syphilis, and that the best way of introducing it into the body was by inunction. The writer, like Astruc, preferred mercury to any of its salts, but he also preferred to introduce it by the mouth. The earlier the treatment is begun the more effectual it appears to be in attaining its object. The prevention of the late phenomena is the most important aim in the treatment of syphilis. It is exceedingly probable that the anticipation of the second stage and the prevention of its development is of paramount importance in preventing those of the tertiary class. If in the early stage, there has been no dermatitis and no congestion of the fauces, there will be no gummata of the skin and throat in later life. From this point of view, the early use of mercury in the suppression treatment cannot be exaggerated. The author believes that its use should be continuous and prolonged. His plan of treatment is as follows: A pill, containing one grain of grey powder and one grain of Dover's powder, is given after each meal. If diarrhœa does not result, it may be given four, five, or six times a day. Soups, fruit, and green vegetables are forbidden and the treatment must be continued for at least a year. An alum mouth wash may be given to prevent ptyalism. Ordinary work may be allowed but the patient should spend as much time as possible in bed. A grain of quinine may be added to each pill if there is debility. If there is ulceration, iodide of potassium in a fluid form may be added to the mercury. As a rule, the iodides are to be avoided in the earlier stages of the disease.

Original Communications.

DIFFUSE DILATATION OF THE ŒSOPHAGUS DUE TO CARDIOSPASM.

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During the past few years there has been considerable discussion by American, German, English, and Swedish writers concerning diffuse dilatation of the œsophagus without demonstrable anatomical stricture. Most of the reports have been made as the result of pathological findings, the post mortem review of the cases giving us a history and symptoms of definite diagnostic value. The term "idiopathic dilatation" has been applied in most instances to this affection; but we prefer to speak of it as diffuse dilatation due to cardiospasm in presenting these two cases, which, in their history, symptoms, and findings upon clinical examination, resemble in many respects the cases reported by Rumpel (1), Sievers (2), Zinnser (3), Rosenheim (4), Swain (5), Lockwood (6,) Meltzer (7), Gregersen (8), Johnson (9), and others.

As far back as 1841 Malrustens (8) described a case of diffuse dilatation of the œsophagus without stricture, and a year later Huss (8) reported a similar case. Zenker and v. Ziemssen (10) made an exhaustive study upon this subject, and Krause (11), Kronecker (11), Openkowski (11), Netter (12), Mikulicz (11), Mehnert (13), Rosenheim (4), and others have advanced theories as to the ætiology of this interesting condition.

The first case which came under notice was that of an actor (C. G. G.), aged thirty-three years, who had been suffering from dysphagia since he was twelve years old. He gave a family history of tuberculosis and neurotic disturbances. He escaped the more serious infections of early childhood, but was a very nervous and poorly developed youth. He had a highly neurotic temperament and indulged in excessive sexual intercourse. He has had symptoms of internal hæmorrhoids for the past twelve years.

When twelve years of age, while eating his supper one evening he suffered from a sudden attack of dysphagia, and immediately thereafter forcibly regurgitated all he had eaten. He described his symptoms as follows:

While in the act of swallowing solid food, he felt a sensation of acute obstruction in the œso-

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Farewell Address. *Medical News*, April 19, 1884.

phagus, behind the middle of the sternum. His face became flushed, and he felt as if his heart had stopped beating, which sensation was followed by palpitation. He threw off the food without nausea and the sensation of stoppage back of the sternum ceased immediately. He made several unsuccessful attempts to swallow both liquid and solid food, and finally gave up in despair. Four or five days later, he discovered that by gulping down a large amount of liquid after taking solid food, he was able, by considerable exertion, to force the material into the stomach. For fifteen years this had been his method of feeding himself. At times he had been able to swallow with comparative ease; but at no time has he been entirely free from dysphagia. Certain articles of food increased the difficulty of swallowing. The alternating of very hot and very cold liquids facilitated overcoming the resistance. At times the dysphagia was so great that no food would enter the stomach. If any remained in the œsophagus, it usually was regurgitated immediately, or within a few hours. During sleep food remaining in the œsophagus ran from his mouth. If he assumed the horizontal position immediately after eating, without attempting to force the food into the stomach, there would ensue an irritating cough which was relieved only by emptying the œsophagus either through the mouth or into the stomach.

The first examination was made October 10, 1895, at which time the patient was directed to regurgitate. The contents of his œsophagus were found to consist of mucus, mixed with a small amount of his breakfast. Chemical examination showed the presence of lactic acid, but no hydrochloric acid was present. An œsophageal bougie was passed readily down to the cardiac orifice, where resistance was encountered by the largest sized olive tip. By employing a moderate amount of pressure the bougie was passed into the stomach. A flexible rubber stomach tube was passed for 17 inches, when resistance was encountered, and the tube apparently doubled upon itself. Persistent attempts were unsuccessful in overcoming the resistance. On washing out the œsophagus with tepid water it was found to contain a large quantity of mucus and a small amount of food. A definite quantity of solid and liquid food was administered, and two hours later the patient was able to regurgitate the entire amount. In order to determine whether or not any of the food passed into the stomach, the potassium iodide and salol tests were applied with negative results. On the following day the patient was given a potassium iodide and a salol capsule together with an ordinary meal, and was asked to force them into the stomach. Immediately after taking the food he gulped down first six ounces of hot tea, then six ounces of iced milk, and finally six ounces of ice water. He then took a deep breath, forcing the diaphragm well down, and bent forward and compressed the sides of his chest with his hands. During this time he was swallowing in rapid succession. Suddenly, the obstruction to the food gave way and the patient's face, which had been very flushed became pale, and tears ran from his eyes. He complained of exhaustion and palpitation. In ten or fifteen minutes he felt perfectly normal, and stated that this had been his method of feeding during the past fifteen years, sometimes accomplishing it with greater ease, sometimes with greater difficulty; that the effort always exhausted him, and that the passage of the food into the stomach caused considerable pain. The potassium iodide and salol tests showed that the absorption and the motor power of the stomach were normal.

Three months later, a repetition of the tests and physical examination did not reveal any material change in the patient's conditions.

He was not seen again for eight years during which time he led an active life, with irregular habits. His weight varied but slightly from 109 pounds. The following exmination was made in September, 1903: A tube was introduced into the œsophagus and 28 ounces of mucus and saliva, containing small particles of food eaten at dinner the evening before and at breakfast the day of the examination, were withdrawn. The œsophagus was carefully washed out until entirely free from mucus, and a flexible rubber stomach tube, with fenestrations extending upwards for a distance of ten inches from the tip, and containing within its calibre a smaller tube, the eye of which was in direct apposition with the eye at the tip of the larger tube, was introduced and passed downward for a distance of 17 inches, when resistance was encountered and the tube apparently doubled upon itself. By means of a long flexible whalebone stylet, passed through the calibre of the smaller tube to within one inch and a half of its tip, the resistance was overcome after two or three attempts, and the tubes entered the stomach. A small quantity of fluid which was siphoned off contained free hydrochloric acid, combined acids, and pepsin. No evidence of sacculation could be found on introducing a third tube and directing its tip in various directions by means of the stylet. After the third tube had been inserted for a distance of 17 inches, 12 ounces of a weak aqueous solution of eosin were introduced through it and the tube was withdrawn. Five minutes later six ounces of the eosin solution were siphoned through the smaller stomach tube, showing that the fluid had passed into the stomach through the fenestrations of the larger tube. Sixteen ounces of water were then given the patient to drink and later 18 ounces of water and mucus were obtained from the œsophagus by siphonage. The coffee test was not applied. A light meal was given and the patient requested to force it into the stomach. This he accomplished by the method described above. The œsophagus was then washed out and was found to contain very little of the food taken. The patient was directed to irritate the posterior pharyngeal wall with his finger in order to produce nausea, and, although he gasped and went through the muscular effort of vomiting, nothing was thrown off, except mucus from the œsophagus, showing that the cardia was in a spastic condition against both normal and reverse peristalsis. The capacity of the dilated œsophagus was measured by having the patient drink water until he felt it regurgitate into the mouth. Thirty-two ounces were drunk before he experienced any unpleasant sensation, and, after a few moments, he was able to regurgitate with the greatest facility thirty-four ounces of water mixed with mucus. While the fluid still remained in the œsophagus, a rather indefinite area of dulness could be mapped out between the sixth and tenth dorsal vertebræ, extending three fingers' breadth to the left of the spinous processes. The x ray and the œsophagoscope were not used in this case.

Physical examination of the patient at this time revealed a floating kidney on the right side, a moderate degree of gastroptosis, and heart action which was rather slow, especially for one of his extremely nervous temperament.

The second patient was F. P., a single woman, aged thirty-three years, with a good family history free from anything suggestive of neurotic tendency.

She had spent most of her life in the country, and did heavy housework. She was a large boned, muscular woman, with a normal weight of 166 pounds. When she first came under observation on November 20, 1902, she stated that eight months previously she experienced at times a choking sensation just behind the middle of the sternum when swallowing certain articles of food, such as tough meats—especially if they were cold. In order to relieve this sensation of stoppage she would regurgitate a portion, or all, of that which she had eaten. These attacks grew more frequent, and she soon found that it was only by restricting her diet to very hot liquids and thin gruels that she was able to obtain any nourishment. Regurgitation became more frequent as the dysphagia increased in intensity. The sensation of stoppage was usually so severe as to cause immediate regurgitation, but at times it was so slight that she felt as though the food had entered the stomach. Later, however, and mostly at night while she was asleep, this food would be regurgitated without her being awakened. Her general condition remained fairly good until two months after the onset of symptoms when she was awakened at night by a sensation of choking and constriction behind the sternum. Her heart was palpitating and she felt faint. Taking a drink of cold water she immediately regurgitated and experienced relief. From this time on, the symptoms of dysphagia increased with occasional periods of alleviation. Her menses ceased, and up to the present, a period of twenty-six months, have not reappeared.

She became weak, emaciated, and extremely nervous. The œsophageal capacity increased, and she was able to take larger quantities of food before being compelled to regurgitate. She fed herself on very hot liquids and thin gruels in small quantities, at frequent intervals. Most of this was thrown off as soon as the collection in the œsophagus was large enough to cause her discomfort. Portions of solid food would remain in the œsophagus for twenty-four hours. She never experienced any nausea or actual pain, nor did she think that there was ever any true vomiting. She was not able, as was the previous patient, to force the food into the stomach by muscular effort. When first examined she was extremely emaciated, weak, and very nervous. Clinical examination excluded any organic disease and discovered that the heart action was abnormally slow (42 to 54).

Her examination, extending over a period of several days, consisted of the following procedures:

(1) A stomach tube was passed, meeting with resistance when the tooth mark was six inches from the mouth. The tube bent on itself, and coiled up in the œsophagus. A large quantity of mucus mixed with food was withdrawn through the tube. It contained lactic acid, but no hydrochloric acid or pepsin. With this tube still in the œsophagus, a second tube was passed which reached the same distance from the tooth mark, then met with the same resistance. After repeated attempts, the resistance was felt to give way suddenly, the sensation being similar to that of making a false passage. Through this tube there was siphoned out a small amount of fluid which contained hydrochloric acid and pepsin. In order to determine the position of the tubes, eosin-stained water was introduced into one (supposedly in the œsophagus) and plain water into the other. There was no communication between the tubes as evidenced by the return of the unmixed fluids through their respective tubes. (Rumpel's double tube test.)

(2) Water was introduced through the œsophageal tube until the patient complained of choking. Ten ounces seemed to be the capacity, but, after a short period, twelve ounces of water and mucus were obtained.

(3) A tube with multiple fenestrations was introduced into the stomach and a plain stomach tube passed into the œsophagus until resistance was felt at the same point as in the previous experiment. Eight ounces of eosin-stained water were introduced slowly through the œsophageal tube, none of which could be recovered from the stomach.

(4) An œsophageal bougie was passed and the

largest olive tip met with only moderate resistance at the cardiac orifice.

(5) The patient took a mixture of potatoes and bismuth subnitrate and a skiagraph was taken which showed a doubtful increase in the shadow to the left of the sternum, and posterior to the heart at a level of the fifth, sixth, and seventh ribs.

(6) By œsophagoscopic examination the mucous membrane was found to be slightly congested, but no interruptions in the integrity of the œsophageal wall could be discovered, nor were there any macroscopic changes at the cardiac orifice.

(7) By ausculation over the œsophagus and stomach, the first sound in the act of swallowing was distinctly heard, but the sound caused by the passage of food through the cardiac orifice could not be detected.

In observing the patient carefully over a period of several days, it was found that although she experienced a sensation of pressure and burning behind the ensiform cartilage, yet she did not regurgitate her food until a definite amount collected in the œsophagus. Sometimes food taken would be recovered by the œsophageal tube forty-eight hours after being swallowed. Moderate distention of the œsophagus with food gave rise to an harassing cough whenever the patient assumed the horizontal position—especially at night. The cough was relieved only by regurgitation. This symptom was described by Westphalen (14) as occurring in a case of his, and was looked upon by him as of diagnostic value.

The patient was given the following treatment. No food either liquid or solid was allowed by mouth. Twice daily she was fed by means of the stomach tube and the œsophagus was washed free from mucus. It was impossible, from the first, to pass a soft rubber tube into the stomach unless a second tube was passed into the œsophagus to give it support. The irritability of the œsophagus increased daily until finally a flexible tube could not be forced through the cardiac orifice. A tube was then passed by means of a stylet and allowed to remain with the hope that the continuous dilatation would influence favorably the contractility of the cardiac orifice. The tube caused so much discomfort, that it was removed at the end of forty-eight hours, and the result was negative. Thereafter the stomach tube was always passed by means of a stylet, the patient being taught to pass it and feed herself twice daily.

During the following three months, the retaining capacity of the œsophagus was reduced to two ounces. The patient continued this method of feeding for a period of seven months at her home. She gained in weight, and at times was able to swallow liquids without much difficulty.

She returned in December, 1903, when Dr. Martin etherized her and dilated the cardiac orifice with a specially devised instrument. The instrument consists of a metallic shaft, of the same length as that of an ordinary œsophageal bougie, at the end of which there is a dilating bulb made of six flexible steel plates, so arranged that, by turning a handle at the proximal end of the shaft, the distance between the ends of the flexible plates is shortened and the calibre is increased to 120 mm. in diameter. The instrument is introduced through the œsophagus into the stomach and the dilating bulb run up to 100 mm. and withdrawn through the cardiac orifice. The principle of the instrument is the same as that of the Kollmann urethral dilator.

We were hopeful that the repeated use of this instrument would bring about a partial paralysis of the cardia, but we temporarily discontinued its use, because of our desire to put the œsophagus at complete rest and at the same time force the patient's nourishment, and resorted to a gastrostomy.

After the dilatation, the patient was able to swallow small amounts of liquid, and, in some instances, a little solid food, but in a few days the spasmodic condition returned, and she regurgitated everything. About this time she vomited the gastric contents on two or three occasions. The retaining capacity of the œsophagus was two ounces, which increased to eight ounces within a few days after she began to take food by mouth. Tubal feeding was again resorted to, but it caused so much irritation of the œsophagus, that it became necessary to perform a gastrostomy on February 26, 1904, when it was found that, with the patient partially anæsthetized, the cardiac orifice easily permitted the introduction of two fingers.

Since then, she has been feed through the gastric fistula and has not been allowed any food, either solid or liquid, by the mouth. The method of feeding has been as follows: Six feedings in the twenty-four hours; at 6 a. m., two eggs with six ounces of milk; at 9 a. m., four ounces of cream; at noon, six ounces of emulsified food; at 3 p. m., six ounces of beef juice; at 9 p. m., six ounces of beef juice. The emulsified food consists of meat, potato, bread and butter, and one other vegetable. It is thoroughly masticated and then beaten up with two raw eggs and a small quantity of broth and strained. The patient has gained an average of five pounds weekly since this method of feeding has been instituted.

In each of these cases a diagnosis of diffuse dilatation of the œsophagus, with spastic contraction of the cardiac orifice of the stomach, was made. In the case of the man, the diagnosis was comparatively simple. He was a neurotic. The dysphagia was sudden in its onset and was increased by the taking of certain articles of food. There was regurgitation without nausea, and a sensation of burning pressure back of the ensiform cartilage.

The following facts point to cardiospasm and diffuse dilatation of the œsophagus: the food running out of his mouth when he was in the horizontal position; the variations in the degree of the dysphagia; the regurgitated material, consisting of the food last eaten; the uniform findings on the passage of tubes; the introduction of an œsophogeal bougie into the stomach without much difficulty; the suddenness with which the tube entered the stomach when the resistance gave way; the change in the amount of resistance; the negative Rumpel's double tube test; the inability to vomit; the absence of the second sound heard in swallowing; and the ability of the patient to overcome the obstruction by mechanical means, which had an influence upon the nervous mechanism of the œsophagus and cardia.

In the case of the woman the onset was insidious. She was not neurotic, and was free from the stigmata of hysteria. The inability to overcome the obstruction by voluntary effort; the positive result of Rumpel's double tube test; and the regurgitation of accumulated food products; all pointed to a diagnosis of either a sacculation, or a diverticulum of the œsophagus. The variation in severity of the symptoms, the fixed point of resistance encountered in the passage of tubes, and the sudden cessation of resistance to continued pressure of the tube without changing its position, the absence of the second sound in swallowing, and the inability to vomit when nauseated, suggested cardiospasm. The vomiting on two or three occasions, and the coincident ability to swallow food succeeding the forcible overstretching of the cardia, together with duration of this condition, indicated temporary paralysis of a spastic cardia.

Meltzer (7) first pointed out the diagnostic importance of the inability to vomit in cases of cardiospasm; while Leichtenstein and Rumpel report cases in which this symptom was observed, although in their cases true stomachic vomiting appeared at intervals.

The symptoms indicative of diverticulum are compatible with a diagnosis of cardiospasm when the pathological condition is one in which the cylindrical dilatation at the extreme lower end of the œsophagus has spread out over the dome of the diaphragm, forming a circular gutter, the bottom of which lies below that portion of the œsophagus blending into the cardia. This explains the positive result of the double tube test, the diverticulum type of food regurgitation, and the inability to force food into the stomach by muscular effort. The recovery of water introduced into the œsophagus while a tube is in the stomach by simply withdrawing the tube negatives diagnosis of diverticulum. In the latter conditions it would be necessary to manipulate the tip of the tube until it entered the pouch. Moreover, in diverticulum, symptoms of obstruction do not supervene until the sac is filled. The passage of a full sized bougie excludes organic stricture. The age of the patient, duration of symptoms, and physical examination exclude obstruction from malignant disease, tumor, or abscess.

The ætiology of this affection has been a much disputed question. The older writers have ascribed it to a primary weakness or a lessened resistance of the œsophageal wall. They emphasize the necessity of a congenital defect, although admitting the possibility of its being an acquired condition, but necropsy findings disprove their views by disclosing hypertrophy of the muscular coat in the majority of cases. Mehnert (13) attributed the condition to abnormalities in the position of the aorta and the œsophagus. Micuilcz (8, 11) and Meltzer (7) advanced the theory of a primary cardiospasm resulting from a failure of the central inhibitory influences controlling contraction of the cardia. Rosenheim (4) opposed this view after noting that little or no resistance was encountered in sounding cases of undoubted dilatation of the œsophagus, and that in cases of organic stricture of the cardia there was no such marked dilatation of the œsophagus. He promulgates the theory that the predisposition to idiopathic dilatation results from a weakening of the muscular coat. F. Krause (11) takes a position midway between these two views and looks upon the condition as a functional disturbance of the innervation of the œsophagus, causing not only the cardiospasm, but also a weakening in the muscular wall. He supports his view by the result of Kronecher's animal experiments in which the pneumogastric nerve was cut, causing cramplike contraction of the cardia, paralysis of the muscular wall, and secondary dilatation of the œsophagus. He further strengthens his position by reporting a case of idiopathic dilatation of the œsophagus in which degenerative changes of the pneumogastric nerve were found at necropsy. Lossen (11) considers Krause's theory incomplete, because it does not explain those cases in which the dilatation occurs in the extreme lower end of the œsophagus, forming, as it were, an ante-stomach, in which there is no cardiospasm. Primary inflammation of the mucous and muscular coats has been given as a cause, but those inflammatory changes found at necropsy are secondary rather than primary.

The age of the patients, the acute onset, and the clinical findings lead us to the view that in our cases the cause is cardiospasm. The ætiology of the spastic condition seems to be best explained by Kronecher (11) and Openkowski (11), who succeeded in isolating branches of the vagus controlling the contractility of the cardia, both inhibitory and accelerative. The tonicity of the cardia is the resultant of two forces, contractile and inhibitory. The former is due, in part, to the influences of the central nervous system exerted through the branches of the vagus, and, in part, to an inherent quality of the musculature of the cardia itself, as is shown by the rhythmical and powerful contraction of the excised cardia of a rabbit. The inhibitory influences come through the vagus distribution and, when they are removed, the contraction of the orifice occurs. In the act of swallowing an inhibitory impulse is set free which opens the cardia by decreasing its tonicity. As the food enters the orifice the inhibitory influence ceases, contraction takes place, and the food enters the stomach. The lack of inhibition may be due to degenerative changes in the vagus, as noted by Krause (11) or to reflex disturbances from distant foci of irritation. Lockwood (6) calls attention to the importance of considering reflex irritation of the vagus by the abdominal nerve supply through the branches of the semilunar ganglion. In the case which he reports, dysphagia appeared coincident with a floating kidney, the result of traumatism.

In both of our cases pathological conditions exist in the abdomen which might produce reflex irritation. The man has a floating kidney, and in the woman the cessation of the menstrual functions occurred simultaneously with the onset of the dysphagia.

In making the diagnosis of cardiospasm with diffuse dilatation of the œsophagus the history of the patient is of paramount importance. It usually occurs in neurotics from twenty to forty years of age. The onset of dysphagia is sudden, and is accompanied by a sensation of burning and stoppage posterior to the sternum. At first the difficulty in swallowing is caused only by solid and insufficiently masticated food. As the disease progresses the difficulty increases. At times no food can be swallowed; at other times certain articles, such as very hot liquids or ices, pass into the stomach without any voluntary exertion. At irregular intervals the symptoms may disappear entirely.

Pain is a variable symptom and is dependent upon the degree of secondary œsophagitis.

The regurgitation of food is characteristic; it occurs immediately or very shortly after eating, and gives immediate relief to the symptoms of obstruction, the regurgitated material being composed of the food last taken. In advanced cases with marked dilatation food may be retained for many hours without causing discomfort. Any food remaining in the œsophagus will be regurgitated whenever the patient assumes a horizontal position, especially during sleep. This sign in connection with a dry cough, which occurs at night on assuming the recumbent position, and which is relieved only by regurgitation of food, is regarded by Westphalen and others as characteristic of diffuse dilatation of the œsophagus.

The absence of true vomiting and the inability to raise flatus have been noted as symptoms of cardiospasm. The majority of patients are able to swallow food with exertion or by employing definite mechanical assistance. With a few all that is necessary is to go through some gymnastic effort, while others force the solid food into the stomach by gulping large quantities of either hot or cold liquid, the amount usually corresponding to the capacity of the dilatation. In other instances the drinking of water previous to the ingestion of solids has proven successful.

The clinical examination of these cases establishes the diagnosis. The easy passage of the œsophageal bougie excludes organic stricture. The uniform point (38 to 39 cm. from the incisor teeth) at which resistance is encountered and the sudden giving way of this resistance, followed by the further passage of the stomach tube, indicates spasm at the cardia in contradistinction to diverticulum. The emptying of fluids contained in the œsophagus by the mere withdrawal of a tube from the stomach without further manipulation indicates a diffuse dilatation as against diverticulum. The chemical examination of regurgitated material reveals the presence of lactic and butyric acids, an absence of free hydrochloric acid and pepsin, failure of proteid digestion, and conversion of starches into sugar.

A large quantity of mucus is always present, but is not distinctive of dilatation. The morphological features of the material regurgitated from a diverticulum and from a diffuse dilatation differ because of the length of time the food is contained. In cases of diverticulum, food particles are found which were eaten several days before and decomposition is more advanced than in cases of dilatation.

Rumpel's double tube test differentiates diverticulum from diffuse dilatation, but is liable to error when the dilatation occurs in the most dependent portion of the œsophagus. The substitution of the second sound of the act of swallowing (Durchpressgeräusch) by a sound resembling liquids falling into a cavity containing fluid is indicative of the diffuse dilatation of the œsophagus with spastic cardia.

Meltzer's alcohol and atropine test, Rumpel's litmus reaction, Einhorn's coffee experiment, and the potassium iodide test, all may be employed to determine the permeability of the cardia.

The dulness elicited over the chest posteriorly when the œsophagus is filled with a liquid, together with a shadow obtained in the skiagraph when a mixture of bismuth is employed, may aid in determining the size and position of the dilatation.

The œsophagoscope may be used to eliminate organic change of the cardia and diverticulum.

The treatment of this condition depends upon the character of the case. In those patients who are able to force food into the stomach little is required except lavage to combat the tendency to acute œsophagitis, but in those cases in which total obstruction is periodical or permanent, nourishment must be administered by systematic tubal feeding and this entails the danger of producing acute œsophagitis.

In the few cases in which the cardiospasm is so marked that the passage of an ordinary stomach tube is impossible a flexible whalebone stylet may be used to give the necessary rigidity. If tubal feeding becomes impossible, due either to an œsophagitis or to increased spasm, rectal feeding may be employed to relieve irritation or, preferably, gastrostomy may be performed. Gastrostomy is not curative, but it gives the œsophagus complete rest and permits of forced feeding.

Electricity, passage of bougies, and retrograde sounding have been advised, but have proved unsatisfactory.

The rational treatment is repeated overstretching of the cardia in order to destroy its tonicity. This may be accomplished with accuracy by the instrument used in one of our cases, or by the pneumatic bag devised by Lockwood.

The prognosis as to complete restoration of normal activity is bad, but the condition, though pitiable, is not necessarily hopeless. Years intervene between the onset of the symptoms and death which usually results from intercurrent disease.

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WHEN TO OPERATE FOR APPENDICITIS.*

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MACOMB, ILL.

So much has been said and written on this subject, during the last ten years by the master surgeons and physicians all over the civilized world, that it is impossible to say anything new or original; but in view of the diversity of opinion still existing among physicians and general practitioners as to the proper time to advise operation for appendicitis, it seems to me becoming to present a paper on this subject before this society.

Surgeons universally agree that the best and safest time to operate is during the interval or very early in the beginning of the attack, and advise prompt surgical treatment in all cases clearly diagnosticated, while physicians, in many localities, do not advise operation until the patient's condition is such that operation becomes an extremely hazardous undertaking. I have met a great many physicians in consultation and at medical societies, and the common question asked is, "How can I tell whether or not an attack is going to be serious. I see case after case recover from the attack without operation, but here and there a case occurs that does not. 'I would like to have definite knowledge on this point, so that I may advise my patients for their best interest."

It has been clearly demonstrated by Dr. Bernays, of St. Louis, and a number of other surgeons, that it is impossible to diagnosticate the pathology or to prognosticate what the pathological conditions are going to be in any case in the beginning of the attack and in many cases not at all until the abdomen is opened; that it is impossible to tell whether the case will terminate a simple acute catarrhal affection or become a suppurative case with perforation; whether there is an enterolith or other foreign substance in the appendix, an occlusion of the lumen, due to œdema caused by the congestion of the cæcum; that we cannot even guess approximately what kind of infection we are dealing with.

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* Read before the Illinois State Medical Society.

This being true, it is clearly evident that every case, not operated upon in the beginning of the attack, is subjected to the possibilities of becoming serious. Many, however, do not, and apparently recover for the time, at least, which convinces the average doctor that operation was not necessary, notwithstanding the fact that the possibility of another and more serious attack hangs over the patient's head, and, when such an attack does occur, he is often carried along with the hope of recovering as he did before, until finally a surgeon is called in to give him a last chance. I, myself, have seen eight deaths from appendicitis, in none of which were the patients operated upon. I have also seen five deaths following operation as a last resort. Every one of these cases, through negligence, was let go until formidable and fatal symptoms occurred before operation was advised. I am satisfied that every one of the thirteen patients would have recovered if early or interval operation had been done. Medical literature on this subject is full of reports of such cases and hundreds of patients are dying yearly, yet there is scarcely a medical meeting where this subject is discussed, but that there is a plea for conservatism, conservatism that conserves the appendix, oftentimes at the expense of the patient's life. Statistics show that the mortality, in cases operated late, that is after the first few days, when pus has formed and inflammatory complications have occurred, is from 14 per cent. to 20 per cent., while the interval or very early operation (which is nearly always the same as the interval operation) in the hands of a skillful surgeon, has practically no mortality at all.

In order to show the low mortality of the interval operation and also to show that it is the operation of choice quite generally, I mailed a postal card containing the following two questions, to 1,000 of the leading surgeons in the United States: 1st. How many uncomplicated cases of appendicitis operated on between attacks have you lost? 2nd. Approximately, how many such cases have you operated upon? I received 579 answers. Many of the answers were accompanied by interesting personal letters. In a few instances the limitations of the word "uncomplicated" were not clearly understood, but where it was not, in most instances the cases reported were so classified that I could get the kind of cases I wanted, that is cases not complicated by any other disease. Any surgeon who has done many of these operations knows that most cases are more or less complicated by adhesions. In the 579 answers received, 60 486 cases were reported with 119 deaths, a little less than $^{1}/_{5}$ per cent. mortality. The men who reported 500 or more cases average a mortality of $^{1}/_{10}$ per cent.; those who reported 100 to 500, $^{1}/_{5}$ per cent.; and those who reported under 50 cases, 1 per cent. The cause of death in 97 cases was not given; 8 deaths were stated to be due to faulty technique in the beginning of the operator's work; 5 were due to obstruction of the bowels; and one was due to an abscess, which occurred three months after operation. Two deaths were reported to be due to shock, caused by tearing up very dense and extensive old adhesions. The personal letters received were almost unanimous in the opinion that the interval operation is the operation of choice. Dr. John Wyeth, of New York, said the mortality in such cases should be considerably less than 1 per cent. Dr. Ricketts, of Cincinnati, reported 162 chronic cases with 2 deaths, and 76 perforative cases with 14 deaths. His rule is to operate just as soon as possible, regardless of attacks of fever, or other conditions. Dr. John B. Murphy, of Chicago, had 2,068 cases of all kinds; 897 of these were interval cases with only 1 death. The Mayo brothers, of Rochester, Minn., reported 1,657 cases with 2 deaths. Dr. A. H. Ferguson, of Chicago, reported 800 cases with 1 death; Dr. MacDonald, of Albany, N. Y., 1,500 cases, and 2 deaths; Dr. D. A. K. Steele, 1,000 cases with 1 death. Dr. Robert T. Morris, of New York, lost one case from omental adhesions, reforming about the ileum after digging up quite extensive adhesions. He reported over 300 interval cases. Dr. Jepson, of Sioux City, Iowa, reported 1,200 cases with 2 deaths; Dr. A. J. Ochsner, of Chicago, 694 interval cases at the Augustana Hospital alone with 2 deaths. He could not give me statistics on his other cases in time. Dr. John B. Deaver, of Philadelphia, reported over 2,000 interval cases with 1 death, which was caused by a hole in the mesentery through which a knuckle of bowel subsequently slipped. Operation was done for the obstruction, but the patient did not survive. Dr. D. H. Craig, of Boston, said that his experience led him to believe that, except as the result of some very unusual accident, there should be no mortality in the interval operation. He hoped that surgeons would not be further incited to remove this organ, simply because it was easy and but slightly dangerous, because he believed it to be an actively functionating organ and that within a year he would publish his observations along that line. I received two answers saying that it is never necessary to operate at all.

Dr. Lenfestey, of Mt. Clemens, Mich., reports 150 cases treated with copious doses of castor oil and all the cases recovered, and declares there is no use in operating. Dr. Himrod, of Augusta, Ga., states that he has cured all his cases, 50 in number, without operation. Most of the other communications stated that they preferred and urged the interval operation, but they could not generally get patients to consent to operation when they were apparently well. This is undoubtedly true, but if the general public are educated and taught the exact facts in the case, it will not be difficult to get their consent for interval operation, provided they are convinced that the diagnosis is correct. The general practitioner sees the great majority of the cases first and, as a rule, the patient will do as the family doctor insists. It is upon him that the responsibility for the future welfare of the patient rests. If the family doctor advises operation at his first visit or as soon as his diagnosis is made and the patient does not accept it, then his skirts are clear and the patient takes the risk. In this day and age, it is extremely embarrassing for a physician to be caught with a moribund patient on his hands, without having advised early operation, when the family finds out that, if operation had been done early, there would have been little danger. In many instances, the patient will not consent to an early operation, and then again a surgeon may not be available. Under such circumstances the Ochsner treatment should be given. If the patient gets gradually or rapidly worse, he should be operated on any way, and an operation should be selected that will relieve and save the patient's life for the time; then a radical operation may be done later, when his condition will safely permit it. It is gratifying to see that physicians all over the country are rapidly appreciating the advantages of the early and interval operation for appendicitis and when the laity understand the subject better, the mortality from this disease will be very slight, indeed.

It has been said that at this time many cases are, and will be subjected to operation, who have not and never did have appendicitis. This is undoubtedly true. We all make mistakes occasionally, surgeons as well as physicians, and as soon as we all know that a pain in the right side is not always appendicitis, and that other conditions often simulate it so closely, that it is sometimes difficult to diagnosticate, so soon mistakes will be made less frequently. Dr. C. P. Thomas, of Spokane, Wash., in reporting 400 cases of all kinds, said that he had operated in 12 cases that he was sure did not have and never had had appendicitis; that the trouble in these cases was gastric ulcer, gallstones, kidney stones, or some other well known condition. I, myself, have operated in one such case. It is important, indeed, that we make a proper diagnosis before advising operation, but, if that is impossible, an exploratory operation can do little harm, and may determine the real nature of the trouble.

In conclusion, I wish to repeat that:

1st. The safest and best time to operate for appendicitis is during the interval.

2nd. The very early operation in the great majority of cases is the same as the interval operation.

3rd. If all cases were operated early or during the interval there would be practically no mortality, if the operations were done by experienced surgeons.

4th. When cases are not seen until late, or refuse operation, the Ochsner treatment should be given.

5th. If, however, the patient gradually or rapidly gets worse, operation should be urged and such operation advised as will give the patient the best chance for his life at the time.

6th. That it is a serious reflection on the doctor who is caught with a moribund patient on his hands without having advised early operation.

7th. In view of the fact that the mortality of late cases is from 14 to 20 per cent., and that the mortality of interval cases is from $^1/_5$ to $^1/_{10}$ per cent., it is selfevident that the interval operation should be the operation of choice.

◆

Mortality of Michigan During August, 1904.—There were 2,593 deaths in Michigan during the month of August, a slight increase over the number (2,510) registered during the previous month. The death rate was 12.1 per 1,000 population. By ages there were 576 deaths of infants under one year of age, 199 deaths of children aged one to four years, and 677 deaths of persons aged sixty-five years and over. Important causes of death were as follows: Tuberculosis of lungs, 163; other forms of tuberculosis, 27; typhoid fever, 41; diphtheria and croup, 20; scarlet fever, 7; measles, 3; whooping cough, 7; pneumonia, 56; diarrhœal diseases, under two years, 331; meningitis, 29; cancer, 134; accidents and violence, 203. The mortality from typhoid fever and from diarrhœal diseases showed the customary seasonal increase. There was one death from smallpox in Rives township, Jackson county.

VULVOVAGINITIS IN LITTLE GIRLS. A CLINICAL STUDY OF 190 CASES.

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(*Continued from page 693.*)

ÆTIOLOGY.

The gonorrhœal vulvovaginitis was, in my cases, most frequently caused by an indirect and accidental mode of infection. Very often it was contracted through sleeping with the mother or sister, who suffered from an infectious genital discharge; or it occurred in households, where other members were affected with suspicious secretions. In either case, the children may infect themselves by handling contaminated bedlinen, towels, or other utensils, and thus conveying the virus to the genitalia on their fingers. Sometimes the gonorrhœa appeared in family endemics, as in Cases I and II, where both sisters were treated at my department, while the mother was attended in the gynæcological division. The presence of gonococci in the secretions of mother and both daughters was confirmed by Gram's method. In another case both parents and the only child were affected. Twenty-five of my patients contracted the gonorrhœal vulvovaginitis in city hospitals, where they had been treated for various, mostly acute, ailments; after their return from the hospital, the disease was discovered, either accidentally from stains in the linen, or the children were brought to the dispensary on account of pain in urination or a very copious discharge. In one—Case IX—the disease thus acquired was conveyed by the patient to another member of the family; one child contracted the disease in the kindergarten. In many cases I found it very difficult, and even impossible, to obtain a history of the infection.

The catarrhal vulvovaginitis in the cases under my observation was caused by uncleanness, a foreign body, or traumatism; very often it was seen in children under two years of age with summer diarrhœa; either from the contact with the foul intestinal dejecta, or from unclean diapers; occasionally it accompanied incontinence of urine. In 3 cases I have found it associated with membranous adhesions of the labia; I am, however, not able to tell which of the two was the primary trouble; after manual separation of the lips the catarrh yielded promptly to treatment; one child, eight years old, suffered from acquired syphilis, with ulcus durum in the clitoris; while in one case was a diphtheritic ulcer in the vulva.

Epstein affirms that the catarrhal vulvovaginitis is most frequently caused by an autoinfection through proliferation of the bacteria, which have their habitat in the normal genital canal, either under the influence of some local or general cause, or through a particular susceptibility of the epithelium.

The period of incubation of gonorrhœal vulvovaginitis in children varies between three and four days, according to the experiences of Cahen-Brach and Luczny. As this period is longer in the adult, it seems to point to a greater susceptibility of children to the gonorrhœal virus.

DIAGNOSIS.

Clinically a creamy greenish or brownish purulent discharge, particularly in presence of a purulent urethritis, points with great probability to the gonorrhœal form of vulvovaginitis; suspicious are also the chronic cases with frequent exacerbations. Certainty of diagnosis, however, can only be obtained by bacteriological examination; the presence of gonococci must be confirmed by Gram's method. In doubtful cases repeated examinations must be made, or an irritation of the mucosa may be produced by using a solution of silver nitrate, to incite the latent gonococcus into activity. Where the vaginal discharge is very scant, distilled water may be injected, as has been recommended by Nolen; the returning fluid may then be examined for gonococci; even a negative result of the microscopical examination is not always proof of the non-gonorrhœal nature of the affection; and it is more than probable that a good many apparently mild catarrhs are residua of a gonorrhœal vulvovaginitis. As proof, I may cite Case X, where the child, about seven months after the onset of a urogenital blennorrhœa, presented typical symptoms of a very mild catarrhal form. The discharge was very scant and thin, and showed no gonococci on cover glass smears; cultures were then attempted on glucose serum agar media and a growth was obtained. This was examined and showed diplococci, which were decolorized by Gram's method.

DURATION.—The inflammatory symptoms in the gonorrhœal form of vulvovaginitis usually disappear at the end of from four to six weeks; the discharge from having been profuse and greenish becomes scant and milky or serous. This condition will remain for a long time; on the whole, the affection has a distinct tendency to chronicity, with occasional exacerbations. Fraenkel mentions five to six weeks, and Suchard four weeks only, as the durations. Cahen-Brach says five weeks to seven months; in one of his cases the trouble lasted for a number of years—to the despair of the parents; in younger children he observed greater inclination to quicker cure. Koplik mentions six to twelve months, while Skutsch found an average duration of two to three months; A. Caillé, eight to ten weeks; Spaeth, two to seven and a half months, and in the average three and a half months. Of Dusch's 19 cases, 9 were cured in three to ten weeks, 4 were only improved, while 6 were dismissed uncured, after a longer sojourn in the hospital. According to Holt, the duration is indefinite, being from one to six months. Epstein relates that he has often seen cases of gonorrhœal vulvovaginitis which were contracted during infancy, last to the age of nine to ten years; nor does he regard this prolonged duration as an exception; he cites the case of a girl aged ten days with gonorrhœal vulvovaginitis, in whom after four weeks of local treatment, the symptoms abated; on account of an exacerbation at the age of fourteen months, when the child began to walk, the discharge was examined and found to contain gonococci; at the age of two years, she was again examined, as the discharge had persisted; gonococci were still found. Bushke recently reported the finding of gonococci in the discharge after the disease had lasted four years; during that time the child had been under medical observation.

From my own experience I would venture to say that the cases of gonorrhœal vulvovaginitis reported cured after three to twelve weeks are far from being freed from the trouble; nor does it seem justifiable from the knowledge of the course of the affection, to declare the patient cured at the end of two or three or four months; even if gonococci cannot be found in the discharge; as relapses, after apparent recovery, are very frequent, the latent gonococcus being stimulated to renewed proliferation, especially after treatment has been discontinued. I do not hesitate to say, that I hardly know of any other ailment of early childhood, of such tenacity in its course, so refractory to treatment, and fraught with such grave consequences for later life; a calamity to the hospital; to use the expression of an old physician: "Crux et scandalum medicorum."

Saenger mentions that cases of pyosalpinx and old localized peritonitis in young virgins might possibly be referred to gonorrhœa contracted in childhood.

Currier believes that many of the deformed and undeveloped uteri, which are later causes of dysmenorrhœa and sterility, are consequences of vulvovaginitis in early life. The prognosis in the catarrhal form of vulvovaginitis is favorable, usually yielding in a short time to appropriate hygienic and simple therapeutic measures.

(*To be continued.*)

THE SURGICAL TREATMENT OF BUNIONS AND HALLUX VALGUS.

By W. L. KELLER, M. D., U. S. ARMY,
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The frequency of occurrence of these conditions and the excessive degree of painful discomfort which they occasion, amounting at times to the suffering so intense as to prevent the unfortunate victims of these deformities from pursuing their avocations, render the consideration of any plan of procedure which offers a hope of relief, by restoring the foot to its normal usefulness, of importance to the medical profession; since, as we know, such a large proportion of sufferers from these troubles are permitted to go through life unrelieved, their appeals for treatment being met with a long list of local applications from which, from the nature of the deformity, no permanent benefit could be expected.

In the writer's early experience there was frequent opportunity to examine quite a number of cases that had been operated upon, but the after result in the majority of them was by no means satisfactory; and while in a number, the excruciating pain had been relieved, all the patients suffered constant distress or uneasiness on walking. The operative procedure in these cases consisted of a disarticulation of the first metatarsophalangeal articulation and resection of the articular end of the metatarsal bone, or the articular ends of the metatarsal bone and phalanx; while in a few only the exostosis on the lateral surfaces at the articular end of both bones was removed. The first two of these operations can hardly be said to accomplish much more than a substitution of one deformity for another, since the normal tripod of the foot is more or less impaired, except when a very marked flatfootedness complicates the condition. Removal of the exostosis only is very likely to be followed by a recurrence.

Any operation disarranging the normal levels of the feet of the tripod upon which the foot rests, must necessarily result in a deformity with consequent impediment of locomotion. A painful callosity on the sole of the foot at the new point of pressure of the metatarsal bone is nearly an invariable complication of the first two operations above mentioned.

The line of distinction between disabling bunion and hallux valgus is one not admitting of a description, but when the painful symptoms of either of these conditions are present to such an extent as to occasion nearly continuous suffering, and a constant impediment to locomotion, the demand for operative interference is imperative, since the disability, from this stage on, is progressive, and the treatment by local application and corrective apparatus offers nothing in the way of permanent relief.

The writer uses an operation which eliminates all interference with the tripod of the food or its normal level. It is based upon deductions made as to the common cause of the unsatisfactory results following operations heretofore employed; while the number of operations which have been performed by this method is limited, he feels most confident that the satisfactory results in the cases reported will invariably follow the operation, if properly performed in every case.

Operation.—A longitudinal incision, two inches in length, is made along the inner side of the foot, exposing the first metatarsophalangeal articulation. The skin and tissues over the head of the metatarsal bone are retracted; the joint is then opened and opposing articular ends are separated; the periosteal covering over the lateral enlargement and adjoining part of bone are pushed back; and the exostosis with about one eighth of an inch of the bone is removed by a rongeur forceps or, preferably, with a small saw. The tendon of the flexor longus hallucis is freed by blunt dissection from the under surface of the base of the first phalanx, sufficiently to pass a Gigli saw around the bone; the periosteum is pushed back, disarticulation accomplished, and the articular head of the first phalanx is removed. Particular care should be taken throughout the operation to protect the periosteum from needless destruction, and an effort should be made to preserve enough of it to cover the exposed surface of the bone.

A small gauze drain is inserted between the head of the metatarsal bone and the sawed end of the phalanx (this drain is removed after forty-eight hours). The wound is carefully sutured; the toe being maintained at normal extension by a narrow internal lateral splint. Passive motion is begun on the fifth day.

CASE I.—Sergeant ——. Had suffered from hallux valgus of both feet for two years. The deformity in this case was the most marked the writer had ever seen. The arch of both feet was high and markedly prominent.

The old operation of resection of the head of the first metatarsal bone was performed. The wound healed by first intention; motion seemed unimpaired, but upon attempting to walk a marked limping was evident. A careful investigation to discover, if possible, the reason for such an unfavorable result, left little doubt that the impairment of locomotion was a result of interfering with the normal level of the tripod of the foot.

The foregoing case is submitted to illustrate the point taken and the writer believes the same result will frequently follow the operation performed, except, perhaps, when there is marked flat foot.

Cases reported below are evidences of the more satisfactory results to be obtained from the operative method advocated.

CASE II.—Miss ——, trained nurse, had suffered from bunions on both feet for nine years, and had not worn leather shoes for several years. One week before the operation, the pain became so excruciating, that she had to abandon her duties as a nurse.

Operation as described. The recovery was uncomplicated and the patient resumed her duties after three weeks. Up to this time (six months after the operation), not the slightest discomfort has been felt.

CASE III.———, private of the hospital corps, U. S. A., had suffered from bunions on both feet for five years, the pain being so severe that he had to cut holes in all of his shoes over the location of the bunions. Operation as described. The patient returned to duty in four weeks, and has suffered absolutely no discomfort since the operation.

CASE IV.———, trained nurse. For three years she had suffered from bunions on both feet. A superficial operation had been performed two years previous to the present operation, but relief was only temporary, and the pain returned within a month and continued. Operation as described. The patient returned to duty after three weeks, but complained of some tenderness over the joint, which disappeared completely after a few weeks.

The advantages of the operation are as follows: First: The normal tripod of the foot is not disturbed. Second: The danger of ankylosis is comparatively slight. Third: It can be used when the normal arch of the foot is high, while the old operation can be done with safety only when the deformity is complicated by flat foot.

Therapeutical Notes.

Sunlight and Warts.—According to *Semaine médicale*, for September 7, 1904, a Russian physician, Naoumov, of Kazan, succeeded in removing a number of warts from his hands by simply concentrating upon them the solar rays for a period of some thirty seconds, with a convex lens from his ophthalmoscope. He found that the nutritive bloodvessels of the warts became occluded and that the latter, therefore, soon atrophied. A slight induration of the skin remained after the warts had fallen off, only to disappear in its turn after a week or so. The Röntgen rays will destroy warts as is well known, but Naoumov's method is applicable by the humblest practitioner.

Indigestion.—*Presse médicale*, for September 21, 1904, recommends:

℞ Pepsin
Pancreatin } of each....20 centigrammes (3 grains);
Diastase
Calcium glycerophosphate..........10 centigrammes (1½ grain);
Powdered nux vomica..2 centigrammes ($^{3}/_{10}$ grain).
M. For one capsule; one after each meal.

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PARASITOLOGY IN THE PHILIPPINES.

Two important pamphlets have recently been issued by the Philippine Bureau of Government Laboratories. One of them includes an essay on Texas fever in the islands and neighboring Oriental regions, by Dr. James W. Jobling, director, and Dr. Paul G. Woolley, assistant director of the Serum Laboratory, and a report on the Australian tick in the islands, by Mr. Charles S. Banks, the entomologist. The other is a report, by Dr. Woolley, on a pathogenic microorganism which he has tentatively named *Bacillus violaceus Manilæ*. These works, with a number of others that we have had occasion to mention from time to time, show that the labors of our scientific representatives in the east are unflagging and doubtless destined to result in a great increase of our knowledge of certain infectious diseases of man and the domestic animals.

Misfortune seems to have attended the importation of a herd of California cattle into the Philippines. They were obtained from a district free from Texas fever, but on their arrival, not being immune to that disease, as the native and Chinese animals generally are, they became infected with *Boophilus australis,* a tick that serves as the intermediate host of the parasite of Australian pyroplasmosis. The authors think that Texas fever is enzootic in India, China, Java, Borneo, Cochin China, Singapore, and the Philippines, but that the majority of the native cattle are insusceptible to it. The California herd was taken to the Philippines to improve the native breed. Further efforts in this direction will doubtless be made, and undoubtedly the precaution will be taken of immunizing the cattle hereafter transported for the purpose. The essay is illustrated by a number of temperature charts, but the omission of guiding lines, only the curve itself being shown, renders them somewhat difficult to read.

The new bacillus described by Dr. Woolley appears to have been the cause of several rather sudden deaths among carabaos. In these cases there was such a noticeable absence of clinical symptoms that acute hæmorrhagic septicæmia was suspected. Only the three instances that form the subject of Dr. Woolley's report have been observed, and he thinks that there is but little danger of an epizootic due to the *Bacillus violaceus Manilæ*, though each of the three animals affected was from a herd widely separated from the others.

THE CORRELATIONS OF CANCER AND SARCOMA WITH OTHER TUMORS.

At the present time, when so many pathologists have become enamored of the theory of parasitism as a cause of malignant disease, it may be well to remind the profession of the many correlations which cancer and sarcoma have with other tumors. This is the more necessary because the facts on which enthusiasts in that line of investigation base their doctrines admit of an entirely different interpretation than they put on them, while many of the phenomena manifested by cancerous growths cannot be made to harmonize at all with that theory. It is very possible that certain tumefactions now classed with cancer or sarcoma may be found to owe their existence to parasites as yet unknown. Such an event, should it occur, would have no bearing on the main question. The swellings produced by actinomycosis are examples of that kind of disorder.

To establish the parasitic origin of cancer and sarcoma, it must be shown that parasitic organisms exist which not only cause a proliferation of the normal tissues, but also cause the cells of their host to wander from their original situations into distant parts of the body. This phenomenon has never yet been seen in any known parasitic disease. The distinctions between infectious tumefactions of that kind and true tumors pertain to the differences in their modes of origin and growth. The parasite is introduced from without; the true tumor grows from within, from the cells of the affected animal. The parasite makes metastases by means of its own cells or spores, which grow into lymphatic spaces or blood vessels. These secondary growths are composed of the parasitic organisms surrounded and walled in, it may be, by a new growth of their host's cells. The malignant tumor spreads and forms secondary growths, also, by the detachment of its cells or their nuclei and their conveyance in the blood or lymph stream to other parts of the body. The resulting secondary tumors are therefore growths of animal cells which are identical with those of the original tumor. Thus, an epithelioma from the roof of the mouth is composed of squamous cells like those of the oral mucous membrane. If a metastasis takes place to the intestine, where the epithelium is columnar, the secondary growth will nevertheless show the squamous cells of the original tumor, and so with all true tumors that form metastases.

As the diseases progress the tumor cells may undergo some modifications, but they will not vary from the fundamental type. To assume that this kind of cellular action can be caused by parasites, of whatever nature, is not in accordance with our present experience. The difficulties in the way of this hypothesis are intensified by the many and varied phases of malignancy, for the tendency to metastasis is not confined to cancer and sarcoma, but is exhibited by a number of other tumors. It is difficult to believe that such a pronounced effect could be produced on so many different tissues by the same infectious germ, and equally difficult to believe in a multitude of parasitic organisms possessing the same mysterious power. Again, the congenital tumors which are believed to originate from displaced and superfluous germinal matter offer still greater difficulties of interpretation. A child is born of a healthy mother, with a sarcoma of the kidney; if it is of parasitic origin, how did the mother escape? An enchondroma springs up in the parotid gland; how could any infectious germ convert the connective or glandular tissue of that neighborhood into cartilage?

These objections to the theory of parasitism, urged by many pathologists, have found thus far no satisfactory answer. On the other hand, the significance of the facts on which the doctrine rests is the subject of much dispute. Experts differ as to the nature of the so called protozoa found in cancers, and many look upon them as altered and degenerated cells. Others, admitting the genuineness of the microscopic find, regard the intruders as merely accidental, having no causal connection with the disease. The few successes in the experimental inoculations of cancer on healthy animals may be explained as successful graftings of tissue on to susceptible subjects, similar to the common and familiar skin grafting of the surgeon.

Finally, the failure to produce cultures of the supposititious germs adds still more strength to our incredulity. The popularity of this theory is based on that tendency of the human intellect to content itself with those explanations of natural phenomena most easy to understand. If we could solve the problem of tumor growth and metastasis by demonstrating a causal parasitism, we could reduce the question at once to one of detail and devote ourselves to the study of the life histories of the parasites and to methods of cure. This would be eminently satisfactory. Unfortunately, however, underlying the whole question of morbid growths is a mystery far deeper than that of malignancy. The dreadful results of tumor metastasis have given that one feature an intense human interest which has, perhaps, obscured the subject by diverting attention from more fundamental problems.

A tumor or neoplasm is defined as a growth of new tissue which has no physiological connection with the body. I doubt whether many readers realize the full significance of this statement. An animal organism is composed of an infinite number of semi-independent cells capable, under certain conditions, of living when detached and transplanted from their original habitat to one in another animal of the same species. These cells differ from those of the lowest forms of animal life only in this, that they are under an organic control. In unicellular life, the cell exists for itself alone and grows and multiplies without regard to any other necessities; but when life passes from the unicellular form to more complex formations, the interests of the individual cells become secondary to that of the organism of which they are a part. They become, so to speak, subject to discipline and can neither grow, multiply, nor work except as they are permitted for the good of the whole. Their very forms are altered according to the necessities of the body and change from that of the typical cells to those varied forms which we see in adult tissue. It is impossible to conceive of a body of complex cellular formation living, growing, and persisting without some kind of cellular compulsion. This subjection of the part to the whole is what is meant by the "physiological connection of the organism with its component cells." In a perfectly normal body it is so complete that a tissue which has ceased to be of use tends to undergo degeneration and atrophy, and finally disappears. We see this exhibited in a great variety of examples. The alveolar process disappears with the loss of the teeth; the muscles of an amputated thigh become mere strings of connective tissue; the synovial membrane of a motionless joint ceases to secrete synovial fluid and finally loses its peculiar form and quality; organs which have been essential tend to disappear in a race when, from change in environment, they have lost their usefulness.

Therefore the persistence in the body of useless germs or cells or tissues or organs is a violation of law which, even in its mildest form, is an index of a grave fault in the organism. It is probable that every developing embryo generates many superfluous cells, some of which may, in the changing processes, become dislocated, but as development progresses the superfluous and useless are gradually eliminated, as Nature disposes of her rubbish. In tumors of congenital origin, therefore, we may not regard the morbid process as consisting so much in the superfluity or dislocation of cells as in their persistence and growth. The inturned epidermal cells which originate the dermoid cyst, the cartilaginous germ which has become incorporated with the parotid gland to grow later into an enchondroma, and the suprarenal cells which cause the congenital malignant tumor of the kidney would all have been destroyed had the organism itself possessed the normal powers of control. How this control is exerted, whether by means of a balancing of tissues by a mutual antagonism and resistance of neighboring cells or through a nervous centre which acts as a governor to all the nutritive processes, no man knows, but that it is exerted is certain, even though we are totally ignorant of the mechanism by which it works.

Now, the one essential element in the formation of a neoplasm is the growth, multiplication, and persistence of useless cells. It is this which makes all true tumors akin, however varied their pathology in other respects, and distinguishes them from all other diseases. It is the trait which marks in common the fatty tumor and the cancer, the exostosis and the sarcoma. Looked at from this point of view, the occurrence of a fatty tumor, the most innocent of all neoplasms, has in itself, notwithstanding its benign character, something portentous, for it indicates the severance of a portion of the body from its physiological connection with the organism. It may be that the severance is merely local, the result of injury, as when a lipoma results from a blow—it may, instead, involve whole systems of tissue, as in cases of multiple lipomas, or it may indicate even a grave constitutional defect, as exemplified in those cases in which fatty tumors occur on a patient who has had neoplasms of diverse character on other parts of the body. The by no means rare cases in which many tumors, differing in structure and invading various tissues, have occurred simultaneously or successively in the same individual have forced pathologists to assume the existence of a tumorous diathesis.

Tumors are the result of cellular rebellions, and when we have once grasped the full import of what that means to an organism whose very existence depends upon a cellular harmony, it becomes no longer strange that loss of control should result in malignancy, for malignancy is the necessary result of a cellular rebellion carried to its logical conclusion. We might say of a benign neoplasm that it was a cellular rebellion which had not attained full success. We may not forget that there are many tumors which for years are innocuous and easily curable, but which, after long existence, become highly dangerous.

Malignancy is the power to make metastases, and this power depends upon the concurrence of many conditions. The cells must have an aggressive power of multiplication; they or their nuclei must be easily detached in order that they may get into the lymph or blood vessels; and the surrounding structures must have lost their power of resistance. For meeting these conditions, embryonal cells are better adapted than adult cells whose forces have been already expended in development; small cells than large; cells loosely held in succulent tissues than cells fixed in position; fragile cells whose nuclei are easily set free than cells with firmer walls.

Whether the cellular elements in tumors of an embryonal type have grown from superfluous embryonal cells which have remained undeveloped since early fœtal life, or whether adult cells when withdrawn from the normal physiological influence revert to an embryonal form, cannot as yet be determined. This, however, is a mere matter of detail. The fundamental reality behind the phenomena is the loss of physiological control. If these considerations are well founded, the study of tumors must begin with the most obscure problem in physiology, for before we can have any clear conception of pathological growth we must learn the mechanism of normal growth and determine the nature of the bond which enables an enormous aggregate of cellular elements to grow, multiply, and work in unison in obedience to some mysterious organic law. When studying malignant growths we must remember that the malignancy is merely a phase of a much more obscure disturbance. The mystery of the most innocent fatty tumor is as great as that of a sarcoma. Why a blow, which with ninety-nine men would be followed by no appreciable disturbance, should with the hundredth give rise to a lipoma, why certain individuals should have chains of such tumors all over the body, and why in other cases lipomas should occur in conjunction with other entirely dissimilar tumors, are questions which no man can answer.

We may not hope, indeed, to solve problems which concern the very nature of life, but much is gained when we arrive at a clear conception of the difficulties which confront us. It is very possible that we may arrive, by careful experimental investigations, at a better knowledge of the mechanism by which the vital processes are carried on. The study of the pathology of acromegaly, in which excessive growth is associated with disease of the pituitary body, gives a rational ground for the hypothesis that the control of cellular growth and cellular generation may in the higher organisms be lodged in certain nervous centres. Should this ever become established beyond all controversy, it could not fail to throw great light on the pathology of tumors. We could then with reason seek the causes of tumors in degenerations or disturbances of these centres. Ignorant as we are of the fundamental conditions which underlie the origin of all true tumors, we should reject no hypothesis, however wild, and omit no line of investigation which might possibly throw light on this dark subject. We should not, however, dissociate the study of malignant from that of benign growths, for there are good grounds for assuming that the same kind of organic defect which causes the one is responsible for the other.

In many respects, indeed, we may arrive at more just conclusions from the study of tumors which form no metastases than from those which are autoinfectious, as the secondary results of malignancy cause phenomena which obscure the original problem. It is very important in this connection to determine whether the ratio of benign tumors in any locality coincides with that of cancer. It has been stated that certain localities and even certain houses have been very productive of cancer patients. This conclusion has been arrived at from the mortality statistics of health boards. As comparatively few deaths occur from benign tumors, there are no statistics which show us the relative frequency of innocent growths in those same places. The determination of this factor would do much to decide the question of whether the influences which cause malignant tumors are identical with those which produce the benign.

The many problems which arise in conection with the subject of morbid growths cannot be solved by individuals working alone. They demand the systematic, long continued, and conscientious labors of large numbers of devoted physicians all over the world.

Theodore A. McGraw.

HERPES ZOSTER AND CANCER.

A rather curious case is recorded by Adolf Schmidt, of Dresden (*Archiv. für Dermatologie und Syphilis*, lxx, 2; *Berliner klinische Wochenschrift*, September 12th). A woman, sixty-two years old, had mediastinal carcinoma, and in the course of that affection herpes zoster appeared on the left side of the neck, and in a few days it extended to the chest. While the rest of the herpetic eruption disappeared, the lower part of it gave place to carcinomatous ulcerations. Perhaps the mediastinal neoplasm was the exciting cause of the zoster.

News Items.

Society Meetings for the Coming Week:

Monday, *October 17th.*—New York Academy of Medicine (Section in Ophthalmology); New York County Medical Association; Hartford, Conn., Medical Society; Chicago Medical Society.

Tuesday, *October 18th.*—New York Academy of Medicine (Section in General Medicine); Buffalo Academy of Medicine (Section in Pathology); Ogdensburgh, N. Y., Medical Association; Syracuse, N. Y., Academy of Medicine; Medical Society of the County of Kings, N. Y.; Baltimore Academy of Medicine.

Wednesday, *October 19th.*—Woman's Medical Association (New York Academy of Medicine); Medicolegal Society, New York; Northwestern Medical and Surgical Society of New York (private); New Jersey Academy of Medicine (Newark); Philadelphia County Medical Society; New York Society of Dermatology and Genitourinary Surgery (private); New York Academy of Medicine (Section in Genitourinary Diseases).

Thursday, *October 20th.*—New York Academy of Medicine; Brooklyn Surgical Society; New Bedford, Mass., Society for Medical Improvement (private); Medical Society of City Hospital Alumni, St. Louis; Atlanta Society of Medicine.

Friday, *October 21st.*—New York Academy of Medicine (Section in Orthopædic Surgery); New York East Side Physicians' Association; Manhattan Medical and Surgical Society (private); Clinical Society of the New York Postgraduate Medical School and Hospital; Baltimore Clinical Society; Chicago Gynæcological Society (annual meeting).

Saturday, *October 22nd.*—New York Medical and Surgical Society (private); Harvard Medical Society, New York (private).

NEW YORK.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the week ending October 8, 1904:

	Cases.	Deaths.
Measles	44	3
Diphtheria and croup	248	34
Scarlet fever	103	6
Smallpox	..	1
Chickenpox	16	..
Tuberculosis	291	157
Typhoid fever	136	26
Cerebrospinal meningitis	..	10
Totals	838	237

Changes of Address.—Dr. James J. Edmonson, formerly Captain and Assistant Surgeon of the United States Army, to 274 West One Hundred and Fortieth Street, New York; Dr. Philip V. K. Johnson, to 955 West End Avenue, New York; Dr. Joseph Weinstein, to 40 West One Hundred and Fifteenth Street, New York; Dr. Alfred R. Crain, to 122 West Seventy-eighth Street; Dr. Theodorus Bailey, to 122 West Seventy-eighth Street; Dr. William E. Dold, to "Falkirk," Central Valley, Orange County, N. Y., with office at 168 Lexington Avenue, New York.

Grants Asked for New York City Hospitals.—Dr. J. W. Brannan, president of the trustees of Bellevue and the allied hospitals, asked the board of estimate on October 5th, for an increase of $36,621 over the appropriation of last year, or a total of $635,502.27. He promised, if the increase is granted, to improve the hospital service, and argued the necessity of raising salaries occasionally, to keep good men satisfied.

Bequests of Herman Stursberg to New York Hospitals.—Herman Stursberg, by his will, filed for probate on October 4th, left $10 000 to the German Hospital and Dispensary, $5,000 to the Isabella Heimath, and $5,000 to the S. R. Smith Infirmary, of New Brighton, Staten Island.

Poisoned by Wood Alcohol.—The cause of a number of sudden deaths in a West Side district have been traced, it is said, to a certain saloon where whiskey was sold, heavily adulterated with wood alcohol. Fourteen cases of poisoning in quick succession led to an investigation by the police.

Drug Swindlers Arrested.—Several men have been arrested in this city on the charge of selling counterfeits of imported synthetic chemicals. It is claimed by the prosecution that some $10,000 worth of imitations have been seized, together with a list of some 5,000 dealers, who have been in correspondence with the swindlers. Only a post office box was given as the address in the advertisements and in the correspondence found.

Eastern Medical Society.—The section on pædiatrics of the Eastern Medical Society will meet on Thursday, October 20th, at 8.30 p. m., at Clinton Hall, 151, 153 Clinton Street. The papers of the evening will be: Pathology of Empyema, by Edward Schnaper, M. D.; A Résumé of 175 Cases of Empyema, Clinical Features, Prognosis, and Treatment, by Henry Koplik, M. D.; discussion by Dr. Louis Fischer, Dr. Francis Huber, Dr. F. N. Wilson, Dr. A. E. Isaacs, Dr. J. Barsky, Dr. I. S. Hirsch, and others. There will be a presentation of cases and new instruments.

The New York Academy of Medicine.—The Section on Medicine will meet on Tuesday evening, October 18th, at 8.15 p. m. Order: Presentation of Cases and Specimens; Clinical Reports: Two Cases of Duodenal Ulcer with Operation, by W. L. Baner, M. D.; paper, The Malarial Types of Infective Endocarditis, by Warren Coleman, M. D.; discussion; paper, The Present Status of the Clinical Value of Laboratory Tests as an Aid to the Practitioner, by John S. Thacher, M. D.; discussion. Charles H. Lewis, M. D., chairman. E. E. Smith, M. D., secretary, 26 East Twenty-ninth Street.

Physician Summoned by Wireless Telegraphy.—A wireless message from the Red Star liner *New Zealand* to Dr. Edward P. Frye, of Washington, brought that physician flying to this city on a special Pennsylvania Railroad train while the steamship was making her way into port on October 3rd. Dr. Frye was summoned to attend Miss Henrietta Seawell, sister to Miss Molly Elliot Seawell, who had boarded the *New Zealand* at Antwerp. The voyage seemed to do the patient good until two days before landing, when she suddenly became very weak. Miss Molly Elliot Seawell got into communication with Dr. Frye by the wireless system, the message being sent from a distance of eighty-four miles off Siasconsett. Miss Seawell was at once placed on board a train for Washington. This seems to be the first case on record where a physician has been summoned in this manner.

Flushing Hospital's New House Physician.—Dr. Samuel J. Benoit, who succeeds Dr. John C. Teas as house surgeon of the Flushing Hospital, arrived on Friday last and entered upon his duties at once. Dr. Benoit is twenty-four years of age and a native of Fall River, Mass. Dr. Teas left the same day for Pennsylvania, where for the next two months he will coach the football team of the University of Pennsylvania. After that he will take up the practice of his profession in, or near, New York city.

Dr. F. D. Close and Dr. Charles J. Goeller, of the upper East Side, while driving through One Hundred and Fifty-sixth Street on October 9th, were struck by a northbound Third Avenue car. Their buggy was jammed against an elevated railroad pillar and their horse knocked down. Both men picked themselves up, declaring that they were unhurt, refused to make a complaint against the motorman, and went home. An hour later Dr. Close complained of feeling ill and went to bed. The attending physician found him suffering from internal injuries and a possibly fractured skull. His condition is serious.

A Physician Threatened by the Black Hand.—It is stated that Dr. Arthur M. Smylie, a physician of 130 Penn Street, Williamsburg, received a letter recently demanding $300 under threats that one of his daughters, Ruth Smylie, fourteen years old, or Nita Smylie, twelve years old, would be kidnapped. The letter bore a black hand and a skull and crossbones and was poorly written. It directed Dr. Smylie to pay the money to a stranger who would be awaiting him on a certain evening before the church at Bedford Avenue and Hewes Street. The letter was opened by Mrs. Smylie, who collapsed when she read it. Acting upon police advice Dr. Smylie kept the appointment, but no one appeared. The Smylie children now go to school under guard.

PHILADELPHIA.

Northern Medical Association.—At the meeting of the Northern Medical Association, held October 14th, Dr. James H. McKee read a paper entitled Percentage Methods of Infant Feeding.

Changes of Address.—Dr. Brooke M. Anspach, to 2049 Chestnut Street; Dr. T. D. Myers, to 1521 Spruce Street; Dr. William R. Nicholson, to 250 South Thirteenth Street.

College of Physicians.—At the meeting of the College of Physicians, held Wednesday, October 5th, the honorary librarian reported the addition of 155 volumes to the library during June, July, August, and September.

Assistant Medical Inspector Appointed.—Dr. Fred. A. Sutliff, an ex-resident of the Municipal Hospital, has been appointed an assistant medical inspector from October 1st. He has been assigned to one half of the thirty-third ward.

Academy of Natural Sciences.—At the monthly meeting of the Academy of Natural Sciences, Professor Henry A. Pilsbury delivered an address on The Stages of Growth and Decline in the Land Molluscs. Several new specimens, mounted and presented to the academy by the Zoological Society of Philadelphia, were exhibited. A collection of mollusc shells from Bermuda was also exhibited.

Philadelphia County Medical Society.—The following was the programme of the Philadelphia County Medical Society for the meeting of October 12th: A Case of Subphrenic Abscess, illustrated with skiagraph, by Dr. George E. Pfahler; The Therapeutic Uses of the X Rays, by Dr. S. Mason McCollin; The Value of Stereoscopic Skiagraphy, with Practical Demonstration, by Dr. M. K. Kassabian.

Section on General Medicine, College of Physicians.—At the meeting of the Section on General Medicine of the College of Physicians, held on Monday, October 10th, Dr. M. H. Fussell, and Dr. C. A. Fife reported a Case of Uncinariasis and showed specimens of the parasite. Dr. J. A. Scott reported a case of Cancer of the Æsophagus Simulating Thoracic Aneurysm. Dr. John H. Musser read a Note on Chronic Parotitidis. Dr. Joseph Sailer reported a case of miliary tuberculosis which gave a positive Widal reaction.

Improvements in the Administration of the Municipal Hospital.—A telephone is being placed in each ward of the Municipal Hospital, so that persons inquiring for patients may communicate directly with the ward in which the patient is being treated. It has been decided by the board of health to allow parents to visit their children who are under treatment at the institution. The visitor will be provided with a special wrap, and will not be allowed to sit down in the ward. The time of each visit will be limited. In case a patient is able to sit up he will be wheeled to an anteroom for the visit.

Dinner to Professor Liebreich.—On the evening of September 30th, Dr. John V. Shoemaker gave a dinner at his residence, 1519 Walnut Street, in honor of Professor Oscar Liebreich, president of the Pharmacological Institute of Berlin. The guests were: Professor and Mrs. Liebreich and Herr Liebreich, who is a lawyer in Berlin; Professor and Mrs. James M. Anders, Dr. S. Solis-Cohen, Dr. Frank Woodbury, Dr. and Mrs. William Easterly Ashton, Dr. and Mrs. Ernest Laplace, Dr. and Mrs. L. Webster Fox, Dr. and Mrs. E. E. Montgomery, Dr. and Mrs. W. Frank Haehnlen, Dr. Seneca Egbert, Dr. George W. Pfromm, Dr. Herbert Smith, Dr. E. S. Gans, Dr. Judson Daland, and Mrs. W. L. Rodman.

Vaccination Certificates.—It has been the custom among physicians in Philadelphia to issue a certificate to a child who has been vaccinated, as soon as the operation is performed, in order that the child may not be excluded from the schools. Recently, one of the assistant medical inspectors found a recently vaccinated child in the schools and sent her home. The board of health will rule that a temporary certificate should be given the child when the operation is performed, so that he may go to school, and that a certificate of successful vaccination be issued only after the operation has proved successful.

Medical Club's Reception to Sir Lauder Brunton.—On Monday evening, October 3rd, the Philadelphia Medical Club gave a reception at the Bellevue-Stratford to Sir Lauder Brunton. About 475 members and guests were present. The president of the club, Dr. E. E. Montgomery, introduced Dr. Brunton, who made a short address. Before the reception Dr. Montgomery gave a dinner to the guest of the evening at the University Club. Dr. John H. Musser, Dr. Hobart A. Hare, Dr. James C. Wilson, Dr. James M. Anders, Dr. L. Webster Fox, Dr. John V. Shoemaker, Dr. Judson Daland, and Dr. J. W. West were the other guests.

Opening of the Dental Schools.—The dental department of the University of Pennsylvania inaugurated its annual session on Friday, September 30th, at noon. Addresses were made by the provost of the university and by Dr. E. C. Kirk, dean of the dental department.

The dental department of the Medicochirurgical College began its annual session on Wednesday, September 28th, at 8 p. m., with an address by Dr. Judson Daland, professor of clinical medicine in the medical school.

The forty-ninth annual session of the Pennsylvania College of Dental Surgery began October 5th at 8 p. m. with addresses by Dr. C. N. Peirce and Dr. Wilbur F. Litch.

The forty-second annual session of the Philadelphia Dental College opened on October 3rd, with an address by Dr. Henry C. Boenning, professor of anatomy and surgery.

The Health of the City.—The following contagious diseases have been reported for the week ending October 1st:

	Cases.	Deaths.
Malarial fever	3	0
Typhoid fever	80	7
Scarlet fever	46	1
Smallpox	1	0
Chickenpox	13	0
Diphtheria	73	9
Measles	7	0
Whooping cough	8	1
Tuberculosis of the lungs	103	48
Pneumonia	13	21
Erysipelas	5	1
Puerperal fever	1	3

The total death rate for the week was 399 in an estimated population of 1,408,154, corresponding to an annual death rate of 14.74 per 1,000. There have been the following deaths from other contagious diseases: Tuberculosis, other than tuberculosis of the lungs, 8; dysentery, 1; diarrhœa and enteritis under two years, 32. No unusual meteorological observations have been recorded by the weather bureau.

GENERAL

Dr. T. D. Longino, of Atlanta, Ga., is a candidate for the mayoralty of that city.

An Outbreak of Pemphigus is stated to have occurred in Adams, Minn., a town near Minneapolis.

Dr. A. H. Govenflo has been appointed police physician in Detroit, Mich., to succeed Dr. Dayton Parker.

Dr. D. F. Ragan, health officer of San Francisco, who is coming east to study the dairies of the large cities, was entertained at a farewell dinner on October 1st, at the residence of Dr. Max E. Magnus.

Dr. Walter A. Lackey, of Hopkinsville, Ky., has resigned as first assistant physician of the Western Asylum for the Insane to take up private practice at his home.

The Senior Class of the Michigan College of Medicine and Surgery has elected the following officers: President, S. L. Ballard; vice-president, J. Batchelor; secretary, E. Welsh; treasurer, W. G. Wight; toastmaster, J. L. Eastabrook; valedictorian, C. G. Zeidler.

Large Bequests to Massachusetts Charities.—Mrs. Mariana Arnot Ogden, who died at Lenox, Mass., on September 28th, made a will disposing of over $300,000, of which $215,000 make up bequests of a charitable nature. To the Arnot Ogden Memorial Hospital, Elmira, she bequeathed $200,000.

Dr. William H. Pritchard, a former City Hospital house surgeon, of Cincinnati, has been elected president of the Association of Assistant Physicians of Ohio State Hospitals at its convention, now in session at Columbus. He has recently been connected with the Ohio Hospital for Epileptics at Gallipolis, Ohio.

Graduates of Queen's University, Kingston, Canada.—The following medical students at Queen's have completed their requirements for the degree of M. D.: J. E. Bronley, of Pembroke, Ont.; A. Burrow, of Mackillar, Ont.; G. L. Hagen-Berger, of Boston, Mass.; Joseph Larocque, of Alfred, Ont.; J. W. Presault, of Alfred, Ont.; S. E. Tyner, of Kingston, Ont.

The Bad-Nauheim, Germany.—The Grand Duke has ordered that the pavilion and restaurant be kept open this year until October 15th, as an experiment, and that on Wednesday and Sunday afternoons and evenings, weather permitting, military band concerts are to be given either in the music hall or on the terrace. This winter, and in the future, baths may be had during the entire winter season.

The Clear Creek County Medical Society was organized in Idaho Springs, Colo., on September 29th, and the following officers were elected for the ensuing year: President, Dr. George Atcheson, of Idaho Springs; vice-president, Dr. Allan D. Fraser, of Idaho Springs; secretary, Dr. H. B. Ketchum, of Silver Plume; treasurer, Dr. J. B. Finucane, of Idaho Springs; delegate to the State meeting of the Colorado Medical Society, Dr. Charles A. Ferris, of Empire. The society will hold meetings every three months, and its members will become ex-officio members of the American Medical Association.

An Improvised Incubator.—A statement comes from Morristown, N. J., to the effect that an excellent incubator was improvised by Dr. George L. Johnson and Dr. Francis G. Glazebrook on October 3rd, to save the life of a child, born three months before complete gestation. A copper wash boiler was used, hung about with bottles containing hot water, and furnished with a down pillow. A gas stove was lighted near the boiler. The baby, wrapped in cotton, was placed in the boiler, which was covered with a sheet of plane glass; she weighed thirty ounces at birth.

The Vermont State Medical Society held its ninety-first annual meeting at Rutland, October 13th and 14th. There was an exhibit of proprietary medicines, typewriters, medical books, etc., and papers were promised by the following physicians: Dr. P. E. McSweeney, and Dr. D. C. Hawley, of Burlington; Dr. John C. Munro, and Dr. Francis P. Emerson, of Boston; Dr. C. W. Strobell, of Rutland; and others. A reception for ladies was held at the Berwick House.

St. Luke's Hospital, Utica.—St. Luke's Hospital, in the city of Utica, which for the past twenty years has been a successfully managed private hospital of fifty beds, is to have a new building on a new and better site, the gift of Mr. and Mrs. Frederick T. Proctor, of Utica. The new building, which is now nearing completion, is to have eighty beds, and is a fire proof structure of brick, stone, and steel, of the most approved modern type. The entire expense of the building and furnishing is borne by this one family, and the structure when completed is to be turned over to the present board of trustees of St. Luke's Home and Hospital. This is the largest single gift that has ever been made for philanthropic and charitable purposes in that part of the State.

Health in Michigan During September, 1904.—Reports to the State Board of Health, by representative physicians in active general practice, in different parts of the State, show the diseases which caused the most sickness in Michigan, during the month of September (four weeks ending October 1st), 1904, to have been as follows:

Number of reports received for this month..............324

	Per cent. of reports stating presence of disease.		
Diseases arranged in order of greatest prevalence in this month	Sept., 1904.	August, 1904.	Average for September, ten years, 1894-1903.
Diarrhœa	61	57	67
Rheumatism	60	58	59
Neuralgia	49	43	51
Gonorrhœa	39	38	*
Bronchitis	35	30	43
Amygdalitis	31	33	35
Syphilis	28	27	*
Cholera morbus	25	25	29
Consumption, pulmonary	23	25	24
Typhoid fever—Enteric	19	13	22
Typhoid fever—Typhomalarial	4	2	4
Influenza	22	17	24
Dysentery	22	19	31
Cholera infantum	21	20	27
Cancer	10	23	*
Inflammation of kidney	17	18	17
Inflammation of bowels	11	13	14
Intermittent fever	11	10	22
Smallpox	9	11	1
Pleurisy	8	12	11
Scarlet fever	8	9	8
Diphtheria	6	7	5
Remittent fever	5	6	17
Erysipelas	3	6	9
Whooping cough	3	5	6
Pneumonia	3	3	6
Puerperal fever	2	2	1
Meningitis	.9	1	2
Measles	.6	2	3
Inflammation of brain	.6	1	2
Membranous croup	0	0	.5

For the month of June, 1904, compared with the average for June in the ten years, 1894-1903, smallpox and puerperal fever were more than usually prevalent; and dysentery, intermittent fever, pleuritis, remittent fever, erysipelas, whooping cough, pneumonia, meningitis, measles, and inflammation of the brain were less than usually prevalent. Including reports by regular observers and others, meningitis was reported present in Michigan during the month of September, 1904, at 8 places; whooping cough at 17 places; measles at 28 places; pneumonia at 33 places; diphtheria at 68 places; smallpox at 69 places; scarlet fever at 73 places; typhoid fever at 196 places; and consumption at 304 places. Reports from all sources show meningitis reported present at one place more; whooping cough at 7 places less; measles at 10 places less; pneumonia at 7 places more; diphtheria at two places more; smallpox at 37 places less; scarlet fever at one place less; typhoid fever at 35 places more; and consumption at 9 places more, in the month of September, 1904, when compared with the preceding month.

A New Clinical Amphitheatre for the Johns Hopkins Hospital.—The new surgical building and clinical amphitheatre of the Johns Hopkins Hospital was opened on October 5th with appropriate exercises, in which many distinguished physicians participated. A luncheon was served at 1.30 o'clock in the administration building, after which the bronze tablet, erected to the memory of Dr. Jesse William Lazear, was unveiled in the clinical amphitheatre. The exercises began with an address by Judge Henry D. Harlan, president of the board of trustees of the hospital. The amphitheatre was filled with nearly all of the Johns Hopkins Medical School staff, a number from the University of Maryland Medical School, some of the leading physicians of the city and a number from out of town, with a few ladies. Judge Harlan was followed by Dr. William H. Welch, who presided in place of Dr. Henry M. Hurd, who was confined to his room by an attack of hoarseness. The other speakers were Dr. W. S. Halsted, surgeon in chief of the hospital and new building; Dr. Lewis A. Stimson, professor of surgery, Cornell University; Professor Clifford T. Allbutt, regius professor of medicine at the University of Cambridge, England, and Dr. Abraham Jacobi, emeritus professor of diseases of children of Columbia University, New York. Addresses at the unveiling ceremonies were made by Dr. William S. Osler, Dr. William S. Thayer, and Dr. James Carroll, of Washington, who was associated with Dr. Lazear in the work of exterminating yellow fever in Cuba. Dr. Daniel C. Gilman arrived half an hour before the exercises began and spent the time greeting visitors, who were moving from floor to floor making a general inspection of the new structure. The speakers entered the amphitheatre in a body shortly after 11 o'clock. They were accompanied by President Ira Remsen, Major R. M. Venable, Dr. Osler, Dr. William R. Stokes, Dr. Thayer, Dr. Futcher, and others of the Johns Hopkins Hospital. Among the out of town physicians were: Dr. George B. McFarland, of Bangkok, Siam, who is making a study of the hospitals and medical schools of England and America for the Siamese government; Dr. John H. Jamar, of Elkton, Md.; Dr. H. S. Jarrett, of Towson, Md.; Dr G. M. Koher, of Washington; Dr. Edward Manly, of Philadelphia; Dr. J. C. Macgill, of Catonsville; Dr. J. Edwin Mears, of Philadelphia; Dr. O. H. W. G. Ragan, of Hagerstown; Dr. William J. Taylor, of Philadelphia; Dr. S. H. Weeks, of Portland, Me.; Dr. H. L. Naylor, of Pikesville; Dr. W. R. Steiner, of Hartford, Conn.; Dr. William N. Polk, of New York; Dr. O. O. Kelley, of Philadelphia; Dr. E. W. E. Miller, of Hagerstown, and Dr. E. N. Parker, of Washington.

Statement of Mortality in Chicago, Ill., for the Week Ending October 8, 1904, compared with the preceding week and with the corresponding week of 1903. Death rates computed on United States Census Bureau's estimated midyear populations of 1,932,315 for 1904 and of 1,873,880 for 1903:

	Oct. 8, 1904.	Oct. 1, 1904.	Oct. 10, 1903.
Total deaths, all causes	410	476	427
Annual death rate per 1,000	11.10	12.61	11.88
By sexes—			
Males	229	276	228
Females	181	200	199
By ages—			
Under 1 year	102	123	81
Between 1 and 5 years	39	30	50
Over 60 years	67	96	102
Important causes of death—			
Acute intestinal diseases	62	82	46
Apoplexy	7	15	10
Bright's disease	26	29	25
Bronchitis	6	10	8
Consumption	49	44	49
Cancer	25	16	19
Convulsions	9	14	10
Diphtheria	6	5	16
Heart diseases	30	35	32
Measles	0	0	0
Nervous diseases	20	16	19
Pneumonia	27	40	37
Typhoid fever	11	9	5
Scarlet fever	0	1	5
Smallpox	0	2	0
Suicide	8	7	5
Violence (other than suicide)	22	35	37
Whooping cough	3	1	0
All other causes	99	115	104

It is not reassuring to learn that nearly 6 per cent. of Chicago's male population in early manhood is afflicted with Bright's disease; and yet such is the inference warranted by the results of the examination made during the week by department physicians of 489 applicants for appointment to the city fire department. Of this number 29 (or 5.9 per cent.) were rejected for kidney trouble. When it is reflected that the principal cause of such trouble is exposure to cold and wet, after a drinking bout, the figures do not speak well for the habits of Chicago's young men. The first death from Bright's disease in Chicago was recorded in May, 1864, but it was not until 1868 that deaths from the malady were reported in sufficient number to compute rates. In the annual report of the commissioner for 1894, it was shown that the rate had increased 84 per cent. in twenty years, that is. in the decade 1885-1894, compared with that of the decade 1868-1877, and it was then said—speaking of the group of steadily increasing diseases—that: "Sanitary administration can do little with these diseases or with the increase of Bright's disease and of diseases of the nervous system. The high tension of modern life—nowhere higher than here in Chicago—with its besetting temptations to irregular habits and to excesses of various kinds, and its great strain upon the most complex and most important mechanism of life—is something that the sanitarian can but recognize and regret; its relief and remedy will come only through saner views and modes of life." Saner views and modes of life have not yet arrived, and the death rate of Bright's disease has increased upward of another 80 per cent. in less than a decade—that is, from 5 in the 10,000 of population in 1894, to 9.09 in 1903, or 81.8 per cent. in nine years.

Pith of Current Literature.

PRESSE MEDICALE.

September 21, 1904.

1. Leprosy in France and Her Colonies, By Jeanselme.
2. Gastrointestinal Hæmorrhage in the Newborn, By Lop.

1. **Leprosy in France.**—Jeanselme finds that the great majority of cases of leprosy in France occur in persons coming from Latin America, and the French colonies, often in the hope of a cure. It is occasionally communicated, in one case he observed by a child to a nurse, in another, by a husband to his wife. Autochthonous leprosy still exists in rare instances, although the lazar houses were abolished by royal decree in 1693, being merged into the general hospitals. Leprosy not being reportable, professional secrecy protects the lepers who come from abroad and mingle freely with the healthy population in hotels, street cars, etc. Jeanselme knew of two young lepers studying in a lycée near Paris. He suggests supervision of the ports, and treaties with countries where leprosy is prevalent to forbid the sailing of leprous patients. Lazar houses should be established in some healthy district. Jeanselme gives a full account of the conditions in the French colonies, where leprosy is increasing, but says the work of extermination will be heroic on account of the indifference manifested by both natives and whites. Much has been accomplished in Madagascar by isolation and the deprival of leprous couples of their children at birth.

2. **Gastrointestinal Hæmorrhage in the Newborn.**—Lop, after reviewing unimportant hæmorrhages from the bowel, due to lesions on the mother's breast, to section of the frenum linguæ, to wounds of the mouth produced during labor, etc., states that the principal cause of the real gastrointestinal hæmorrhage is probably syphilis. Specific treatment should, therefore, always be instituted, besides applying warmth to the body, and injecting artificial serum with a few drops of brandy. Nursing should be suspended and only boiled water given. Calcium chloride, 7½ to 30 grammes daily, is useful. The writer has had poor results from gelatinized serum.

BERLINER KLINISCHE WOCHENSCHRIFT.

September 5, 1904.

1. Hyperalgetic Zones from Gunshot Wounds in the Head, By Wilms.
2. Treatment of Chronic Articular Rheumatism and Gonorrhœal Arthritides by Bier's Method of Congestive Hyperæmia, By A. Laqueur.
3. Examination of Gastric Contents in Elderly Persons, By H. Seidelin.
4. Case of Brain Tumor After Trauma, By E. Liefmann.
5. Ptosis of the Abdominal Aorta, By Stifler.

1. **Hyperalgetic Zones.**—Wilms reports the case of a man who, after a gunshot wound in the forehead, developed zones of hyperalgesia in the neck, although the autopsy showed that the

cavernous sinus had not been injured. This proves that, for the development of such areas, injury to the intracranial sympathetic branches is not essential.

2. **Congestive Hyperæmia in Articular Disease.**—Laqueur reports that by using Bier's method of congestive hyperæmia in chronic articular rheumatism and in cases of gonorrhœal arthritis, the diminution of pain became marked in a short time. Cases of arthritis deformans were not benefited beyond this. In cases of chronic articular rheumatism, the knee and elbow joints are best adapted to this form of treatment, and benefits are quickly seen. In gonorrhœal arthritis, stiffness of the affected joint was prevented in five cases. The author recommends the method for all forms of chronic articular disease.

3. **Gastric Examinations in Elderly Persons.**—Seidelin found an absence of free hydrochloric acid in seventy persons above fifty years of age whose gastric contents he examined and who were not complaining of any stomach disorder. The absence of this acid is consequently not of great importance in the examination for carcinoma of the stomach in elderly people. It was absent more often in men than in women. The author thinks there is some relation between failure of free hydrochloric acid and arteriosclerosis.

5. **Ptosis of the Abdominal Aorta.**—Stifler says that ptosis of the abdominal aorta may be caused by dilatation or by contraction and is usually associated with ptosis of other abdominal organs. The usual symptoms are those of Glénard's disease, combined with symptoms of a neurosis of the cœliac axis.

GAZZETTA DEGLI OSPEDALI E DELLE CLINICHE.

August 7, 1904.

1. The Cytology of Hydrocele, By OSCAR MARCHETTI.
2. The Treatment of Leucæmia with the Röntgen Rays, By Z. GUERRA.

1. **Cytodiagnosis in Hydrocele.**—Marchetti applied the method of cytodiagnosis inaugurated by Widal for other effusions, to the differentiation of single hydrocele from other conditions. In 1900, Widal and Ravault found that in five cases of hydrocele the fluid contained a number of endothelial cells, either isolated or in groups, and a few red cells and leucocytes. The same cells were observed in aseptic pleurisies of subjects with heart, or kidney disease. They concluded therefore that hydrocele was not an infectious disease, but arose from mechanical causes. In hydroceles due to other conditions, i. e., for example, secondary to gonorrhœa, they found only polynuclear leucocytes, while in one case, with a hæmorrhagic exudate, there were also lymphocytes. But in none of these secondary cases were there any endothelial cells. Marchetti concludes from his own researches that the cells found in the fluid of a common hydrocele are simple epithelial and blood cells. The epithelial elements are usually grouped in small masses, and show sign of degeneration. Red blood cells are commonly found in varying numbers, but it is possible that some of these come from the vessels wounded during the act of removing the sample of fluid. The most common form of leucocytes found are the lymphocytes. This is in contradiction to the findings of other investigators, who regard the presence of lymphocytes in predominating numbers in the effusion as a sign of tuberculosis of a serous membrane. In hydrocele fluid next to the leucocytes in frequency, are the polynuclear, and mononuclear white cells. The eosinophiles are rarely seen. In old, chronic cases of hydrocele no cellular structures whatever could be distinguished. In one case, of traumatic origin, there were many endothelial cells and few lymphocytes. In tuberculous and other secondary forms the lymphocytes predominated. The results of these researches on the cellular contents of the hydrocele fluid coincide with those obtained in other serous cavities. The lymphocytes, which are common in tuberculous cases, are not to be regarded as characteristic of this type of affections of the serous cavities. The author did not find any spermatozoa nor any product of degeneration of spermatozoa in these specimens, and only in one case did he discover a spermatic cyst of the tail of the epididymis. This refutes the argument of Aubert, who regards essential hydrocele as a result of the rupture of such a cyst into the tunica. The presence of spermatozoa in the fluid is accidental, due to the rupture of some of the spermatic vessels in withdrawing the hydrocele exudate.

2. **Röntgen Rays in Leucæmia.**—Guerra, encouraged by the results obtained by Senn, of Chicago, with the same method, treated a case of leucæmia by the application of the Röntgen rays over the spleen, the joints, the extremities, etc. While he noted great improvement in this patient as the result of the treatment mentioned, the blood still remained the blood of leucæmia, although the woman appeared to be in good health at the end of the observation. Hence, when we speak of cures with the Röntgen rays in leucæmia, we must remember that these recoveries are true only as to the general condition of the patient, and not as to the state of the blood. The results of the treatment are summarized as follows by the author: Disappearance of the fever; great decrease in the volume of the spleen; increase in the number of red cells in the hæmoglobin, and in the patient's weight, as well as a gain in strength and general well being. While the number of leucocytes at first became almost normal, it again increased after a time, and at the end of the treatment, the blood was still leucæmic in character. The author used the method suggested by Senn, namely, an exposure of the spleen for ten minutes, of the sternum and the elbows for five minutes, and of the knees for five minutes. A hard tube was used, with 110 volts at 4 ampères. No unpleasant effects were observed.

August 14, 1904.

1. Researches on the Production of Plasteine in the Human Stomach in the Normal State and Under Pathological Conditions. Preliminary Note, By ETTORE TEDESCHI.
2. Intravenous Injections of Thymol in Experimental Infection with the Staphylococcus Pyogenes Aureus, By PIETRO FIORENTINI.
3. On the Use of Iron Preparations in Therapeutics, By P. MARFORI.

4. Mesotan in the Treatment of Rheumatic Affections, By Emilio Crocco.
5. The Morphology of the Tubercle Bacillus and Its Semeiological Value, By Antonio Chiesi.

1. **Plasteine Reaction in the Stomach.**—Tedeschi studied the mode of formation of the substance described by a Russian physiologist, Savialoff, under the name of plasteine, as the final product of proteid fermentation which is absorbed into the blood. According to Savialoff's theory, the gastric ferments reduce to one substance all the proteids ingested, no matter whence they are derived, and when the labferment acts upon these products of digestion, they are all converted into a single substance, plasteine, which keeps the composition of the blood and the tissues uniform, no matter what kind of food is taken, Tedeschi placed in contact with each other in a test tube a solution of plasteine obtained from the digestion of egg albumen, and serum, rendered immune against the same ovoalbumen. A precipitate resulted. He found that the same biochemical reaction took place with the gastric juice when it contained plasteine, and therefore was able to use this test as a control in some of his further studies. This test proved that there was formed in the human stomach, during the digestion of a proteid, a substance which possessed the biochemical reaction of the initial proteid ingested. This seemed to show that the digested substance was endowed with properties akin to those of the initial substance, and thus Savialoff's theory was somewhat shaken. On examining the stomach contents of men, during the digestion of a solution of peptone, he found that plasteine gave the maximum reaction an hour and a half after the meal, that it first appeared three quarters of an hour after this meal, and that it was still present, though to a slighter degree, three hours afterward. The maximum reaction always corresponded to an increased amount of HCl, and an increased pepsine activity. Some of the plasteine evidently was formed within the walls of the stomach, as a more intense reaction was obtained in the gastric juice than in vitro, with the same amount of peptone solution. When there was hyperchlorhydria and increased pepsine activity the patient showed an increased plasteine reaction; when the opposite conditions obtained, as in cancer, the plasteine reaction was absent.

2. **Thymol Injections in Sepsis.**—Fiorentini experimented with thymol injections intravenously in trying to combat an infection with the Staphylococcus pyogenes aureus in animals. He found that thymol, when injected intravenously in the proportion of ten centigrammes a kilogramme of an animal's weight, not only modified, but even arrested an infection with the germ mentioned. Thymol exercised this action when the infection had already fully developed, and it was actually a specific in this form of sepsis. It did not kill the germs, but it rendered them so weak and attenuated that they were no longer capable of killing the animal. Thymol was but slightly reduced in the presence of organic substances, and was easily absorbed into the blood. It acted in these cases not alone, but with the aid of leucocytosis and phagocytosis. It was probable that its beneficial action depended chiefly on its power to invoke leucocytosis,—a power which thymol possessed in a much higher degree than mercuric chloride.

5. **Morphology of the Tubercle Bacillus in Diagnosis.**—Chiesi asks of what practical use could be the variations in the shape and size of the tubercle bacillus so frequently met with in ordinary specimens of sputum, etc. For the purpose of determining the diagnostic and prognostic significance of these variations, he studied twenty-four cases of tuberculosis and concludes as follows: The morphology and the chemical characteristics (affinity for fuchsine) of the tubercle bacillus vary in different individuals, and, at times in the same individual. The morphological variations in this germ are as a rule more numerous and more marked when there is mixed infection. The severest forms of tuberculosis show, other things being equal, for the most part short and easily stained bacilli, while the lighter forms show bacilli with extensive morphological changes, and poor staining qualities. If kept in the thermostat at 37°, the tubercle bacillus tends to grow and to change its shape. In sputum kept in this manner we find altered forms next to normal forms. Tubercle bacilli, kept in sputum where they occurred, become attenuated in the course of twenty days, and lose their virulence.

RIFORMA MEDICA.

August 30, 1904.

1. The Paravertebral Triangle of Grocco, By Luigi Ferrannini.
2. A Case of Lymphoangeioendothelioma of the Periosteum of the Sternum, By Antonio Coletti.
3. On Ankylostomiasis and Its Treatment, By Gino Norsa.
4. Sigmoiditis Due to Oxyurides, By P. F. Arullani.
5. A Case of Heroinomania, By Teofilo Montagnini.

1. **Grocco's Triangle.**—Ferrannini investigated the significance of Grocco's paravertebral triangle in the diagnosis of unilateral pleurisies. Grocco's triangle is an area of dulness found on the posterior surface of the chest on the side opposite to that on which the effusion is located. The inner boundary of it corresponds to the line of the spinous processes; the lower boundary corresponds to the lower line of pulmonary resonance and is from three to six cm. long. The external boundary is an oblique line which joins the outer end of the lower boundary and runs to the point on the inner boundary corresponding to the level of the exudate. There is relative dulness on percussion over this area, and the dulness increases towards the spinal column. The triangle is most distinct in pleural effusions on the right side and over it there is always diminished breathing. Ferrannini studied a number of cases of pleurisy with reference to this triangle. He made actinographs of this region and found that in almost all cases there was a shadow corresponding to the triangle of dulness. His conclusion is that Grocco's triangle is truly a valuable sign of unilateral pleurisy, and that it increases in size with the amount of effused fluid, so that it may be looked upon as a measure of the amount. The diminution in the size of this triangle indicates that the fluid is being

absorbed, while the percussion note over the fluid may be deceptive, as thickened pleura, etc., may cause a persistence of the dulness. The triangle is produced by the pressure exercised by the distended pleura of the opposite side, which pushes the heart over to the other side and thus compresses the other lung backwards into the region where this relative dulness appears.

2. **Treatment of Ankylostomiasis.**—Norsa recommends the use of male fern and thymol in the treatment of ankylostomiasis. Patients should not be discharged cured, until repeated examinations have shown that their fæces no longer contain the parasite.

4. **Sigmoiditis Due to Oxyurides.**—Arullani describes a case of sigmoiditis due to oxyurides. During the attacks of pain, and throughout the course of the disease, the patient continued to pass round worms in the fæces. The patient improved markedly after the disinfection of the intestines, and when the symptoms disappeared, worms were no longer found in the fæces. The treatment consisted in the use of thymol and benzoic acid in large doses, and the patient made a good recovery.

5. **Heroinomania.**—Montagnini describes the case of a woman, who presented signs of psychical and somatic degeneration, having become addicted to the use of morphine and then, as a substitute, of heroine, for menstrual pains. She was sent to an insane asylum where the signs of chronic heroine poisoning were observed. They consisted of grave disorders of the nervous system, such as tremors, asthenia of the lower limbs, diminished sensibility to pain, etc.; grave cardiac disturbances, including cardiac weakness and slow pulse; colicky pains, indigestion, dryness of the throat, scanty micturition, albuminuria, and general emaciation; a variety of paræsthesia, a depressed mental condition, inability to work, loss of energy and slovenliness of the person. There were no evening rises of temperature; disturbances of vision or any psychomotor disturbances with morbid impulses, such as have been described by other authors. Montagnini denies that one cannot get used to heroine, and that the heroine habit produces deleterious effects.

ROUSSKY VRATCH.

September 4, 1904.

1. On the Influence of Various Poisons Upon the Isolated Heart of Warm Blooded Animals (*To be continued*), By N. I. BOTCHAROFF.
2. On Combined Ethyl Bromide and Chloroform Narcosis (*To concluded*), By P. P. LAMPSAKOFF.
3. A Case of Spring Catarrh of the Conjunctiva, By I. I. CAZASS.
4. The Organization of the Prevention and Treatment of Diseases of Women in Town and Country in Russia (*Continued*), By N. M. KAKOUSHKINE.
5. On Scurvy in the Province of Viatka, By A. S. MANUILOFF.

3. **Spring Catarrh of the Conjunctiva.**—Cazass describes a case of this rare condition also known as Sæmisch's disease. Its great interest lies in the fact that it is apt to be taken for trachoma with phlyctenulæ; indeed, this is what happened in the case reported. Until 1899 not a single case had been reported in Russian medical literature, and up to the present only twenty-four cases have been described in Russia. The disease is evidently very rare in that country. It has been met with frequently in Switzerland, in Turkey, and in some parts of Western Europe, but even there a large ophthalmological service of over 22,000 patients did not offer more than 23 cases in 28 years. The chief characteristic of the disease is its periodicity, an attack usually recurring in the spring of each year for a number of years. It may disappear entirely or it may leave a circle about the cornea similar to the arcus senilis. The ætiology is not clear, and some authors have blamed the heat rays of the sun, while others contended that the disease is an infectious one. It occurs chiefly in young men and boys. The disease is characterized by an intense itching of the lids, photophobia, etc., but there is no purulent discharge, unless there is a complicating trachoma. On examination, the eyelids seem coated with a whitish blue film, like a layer of skimmed milk. Small nodules appear on the conjunctiva of the upper lid. These nodules are hard and look like cobblestones on an ill paved street. The lower eyelid shows only a smooth reddened surface. The size of the different nodules is variable, from the smallest visible granule to one of considerable size. These nodules resemble phlyctenulæ, but, unlike the latter, they do not ulcerate. The treatment consists in the use of a variety of symptomatic remedies. Dilute acetic acid is used in the form of drops three or four times a day to allay the itching. Cocaine, boric acid solution, etc., are also used. The operative treatment consists of excising the nodules, but is not always successful.

5. **Scurvy.**—Manuiloff describes the epidemic of scurvy which appeared in 1902 in the province of Viatka as the result of the famine in that portion of Russia. The struggle against scurvy was thoroughly organized by the authorities, and a special staff of physicians was detailed for this purpose. The epidemic began in January with 8 cases and increased until it reached 5,836 cases in May, when it began to give way under the efforts of the sanitary authorities, until it disappeared in August. In addition to hunger, the cause of the epidemic was the severe cold and the crowding of the peasants in their huts, in which domestic animals were also kept. The women suffered more frequently than the men and the disease occurred at all ages from 16 to 70 years, but only in rare cases did it affect children under 10 years of age. The treatment consisted in improving the nutrition of the patient; in the use of preparations of iron, quinine, and arsenic. In cases of loss of cardiac tone it was necessary to employ stimulants. The chief articles of diet were milk, vegetables, especially potatoes, beer, wine, lemons, citric acid, and cranberry juice. Massage and warm baths gave good results, but were used to a limited extent on account of the lack of facilities. Fresh air and sunlight were very beneficial. The gums were treated by the use of washes with boric acid, chlorate of potassium, and by painting with iodine, etc. In the presence of extensive hæmorrhages in the feet warm foot baths and warm compresses with vinegar gave excellent results.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

October 8, 1904.

1. The Pathogenesis of Uræmia and Eclampsia, By Robert N. Wilson.
2. Amœbic Dysentery. Its Local Lesions and Treatment, By James P. Tuttle.
3. The Pathology and Ætiology of Arthritis Deformans, By Thomas McCrae.
4. Arthritis Deformans, By James J. Walsh.
5. The Treatment of Arthritis Deformans, By Clarence Edward Skinner.
6. Autoplastic Sutures in Hernia and Other Diastases, Final Report, By Lewis L. McArthur.
7. Impacted Fracture of the Neck of the Femur. Report of Two Interesting Cases, By Le Moyne Willis.
8. Osmic Acid Injections for the Relief of Trifacial Neuralgia (*Concluded*), By John B. Murphy.
9. Poisoning by Wood Alcohol. Cases of Death and Blindness from Columbian Spirits and Other Methylated Preparations (*Continued*), By Frank Buller, and Casey A. Wood.

1 and 2. See this *Journal,* Vol. LXXX, page 83.

3, 4, and 5. See this *Journal,* Vol. LXXX, page 87.

6. See this *Journal,* Vol. LXXX, page 83.
7. See this *Journal,* Vol. LXXX, page 87.
8. See this *Journal,* Vol. LXXX, page 83.

BOSTON MEDICAL AND SURGICAL JOURNAL.

October 6, 1904.

1. Gastric Ulcer in Children (*To be continued*), By Elbridge G. Cutler.
2. "Pericemental" Abscess, By D. D. Smith.
3. A Comparison of Anæsthetics. Results from Chloretone, By Theodore C. Beebe, Jr.
4. Examination of Pleural Fluids with Reference to Their Ætiology and Diagnostic Value (*Continued*), By Percy Musgrave.

2. **Pericemental Abscess.**—Smith discusses the diagnosis, symptomatology, and treatment of pericemental abscesses. These teeth affections were first described by the author in 1890, and are of as much interest to the practitioner as they are to the dentist, on account of the severity of the constitutional symptoms to which they give rise. The nerve centres are specially affected by the pyemic toxines from these abscesses. Depression of spirits, loss of appetite, enfeebled digestion, malaise, headache, tonsular and pharyngeal inflammations, are the direct outcome. They also become the exciting cause of many far more serious troubles, both acute and chronic; among these we have found neurasthenic, gastric, gastrointestinal, rheumatic, and renal complications, including diabetes and albuminuria. All these conditions have been cured by the author, when caused by "pericemental" abscess, by proper treatment of the mouth. "Pericemental" abscess is a characteristic tumor growth, generally situated between the roots of the teeth. It develops from a point of irritation on the external surface of the "pericæmentum," usually in some inaccessible depression in which infection lodges and is confined. The condition is virulently infectious, and is curable only through loss of the affected tooth. The condition may be acute or chronic, is readily diagnosticated when once understood, but is now usually mistaken for alveolar pyorrhœa.

MEDICAL NEWS.

October 8, 1904.

1. The Incidence of Gastric Ulcer in America, By Campbell P. Howard.
2. The Condition of the Blood and Urine in Gastric Ulcer, By Thomas B. Futcher.
3. The Pathological Anatomy of Gastric Ulcer, By Harlow Brooks.
4. Complications and Sequelæ of Gastric Ulcer, By Morris Manges.
5. Symptomatology and Course of Gastric Ulcer, By Max Einhorn.
6. Further Remarks on Orthoform in the Diagnosis of Gastric Ulcer, By Frank H. Murdoch.
7. Two Old Friends: Castor Oil and Salts, By Edward P. Carlton.
8. Internal Antisepsis, By J. N. Hall.

1. **Gastric Ulcer.**—Howard has made a statistical study to determine the incidence of gastric ulcer in America. His conclusions are based on clinical and autopsy rocords. Statistics from both these sources are open to objection, yet, by combining them, some approach to the real condition of affairs may be hoped for. With this warning in mind it can be asserted: (1) Both clinically and pathologically, ulcer is less frequent in America than in London and on the Continent. (2) Both clinically and pathologically, ulcer is more common in the northeastern than in the more southern regions of America, with the exception of San Francisco.

2. **The Blood and Urine in Gastric Ulcer.**—Futcher describes in detail the various changes in the blood and in the urine that occur in gastric ulcer. In general it may be said: (1) The blood shows no characteristic changes. The alterations that do occur are largely due to hæmorrhage and the resultant anæmia. (2) Certain alterations may occur in the urine, but they are neither constant nor characteristic. The urine may be alkaline in reaction, it may contain casts, albumin, and albumose. Other changes that have been observed were probably accidental.

3. **Gastric Ulcer.**—Brooks desires to put himself on record as one of those who believe that primary gastric carcinoma frequently arises in healing gastric ulcers.

4. **Complications of Gastric Ulcer.**—Manges, instead of writing a formal paper on the complications of gastric ulcer, reports a number of cases treated at the Mount Sinai Hospital for ulcer and its complications. Twelve cases are reported in detail and general statistics are given of 216 cases of ulcer and cancer of the stomach.

MEDICAL RECORD.

October 8, 1904.

1. Perineal Prostatectomy, with Report of Ten Cases, By Henry H. Morton.
2. Hospital Notes on Epidemic Cerebrospinal Meningitis, By José M. Ferrer.
3. Early Cirrhosis of the Liver and Its Treatment, By Hubert Richardson.
4. Case of Strangulated Umbilical Hernia with Unusual Features, By J. J. Buchanan

5. A Case of Supposed Primary Tuberculosis of the Pharyngeal Tonsil, By DONALD M. BARSTOW.
6. Le Diabète à Deux, By LEONARD WEBER.

1. **Prostatectomy.**—Morton reports his cases in detail and adds that they can be summarized as follows: "Ten patients were operated on, most of them desperate cases and all in old men. Two deaths ensued—one from infection of the suprapubic wound, one from acute nephritis ten days after the operation. Two patients were obliged to use the catheter subsequently, on account of the residual urine, but both had complete retention before the operation, and now can pass water, are not troubled with frequent urination, and are perfectly comfortable. One, formerly operated upon by Bottini's method, had a tear into the rectum, which was subsequently closed, but had complete restitution of bladder function. The remaining five were entirely relieved and did not require further use of the catheter." The author asserts that no one operation can be chosen as a routine measure for the treatment of prostatic hypertrophy. Personally he favors Bryson's method of perineal prostatectomy. The technics of this procedure is given in detail. The following advantages are claimed for it: (1) The comparatively low death rate. (2) The rapidity, ease, and facility with which the prostate can be enucleated. (3) The trifling amount of hæmorrhage and shock. (4) The excellent bladder drainage and ability to keep the patient's bed and dressings dry. (5) The rapid convalescence, the patient getting out of bed within ten days.

2. **Meningitis.**—Ferrer had under observation twenty cases of epidemic cerebrospinal meningitis during the late visitation. Fifty per cent. of his patients died. He reports in detail six cases, which illustrate as many types of the disease. The paper does not lend itself to abstracting.

3. **Cirrhosis of the Liver.**—Richardson holds that cirrhosis of the liver is due to a toxæmia of intestinal origin. Its treatment in the early stages consists in regulating the diet and stimulating the liver to increased activity. This is best done by such drugs as iodide of potassium, biniodide of mercury, sodium salicylate, etc. Early diagnosis of the disease is important but not easy. Beginning cirrhosis of the liver may be strongly suspected if with irritability of temper, mental depression, insomnia, mental slowness, various nervous symptoms, the result of the toxæmia, there is general decline of health, icteroid discoloration of the skin, feeling of weight or vague discomfort in the hypochondrium, loss of or capricious appetite, irregularity of the bowels, a broad, flabby coated tongue, a foul breath, loss of weight, a muddy, leaden complexion, with a permanent dilatation of the cutaneous capillaries, a true telangeiectasia in various parts of the body, especially in the face.

6. **Diabetes.**—Weber has had under observation about sixty cases of diabetes. Three times he has observed the husband of a diabetic woman develop the disease. Such occurrences are not so very infrequent. Why the husbands developed the disease is not clear. The worry over their wives may have had something to do with it. Possibly the actone exhaled with the breath or the sweat of a diabetic may influence the health of a person in long and constant association with the invalid. However that may be, the author believes that it is not desirable for a diabetic and a non-diabetic person to occupy the same bed.

AMERICAN MEDICINE

October 8, 1904.

1. Gastroptosis, with Special Reference to the Surgical Treatment: The Operation of Gastropexy, By HENRY D. BEYEA.
2. The "Differential Diagnosis" of Gastric Ulcer, By HENRY WALD BETTMANN.
3. The Mild and Abortive Forms of Typhoid Fever, By JOHN BRADFORD BRIGGS.
4. Penetrating Gunshot Wounds of the Abdomen, with Report of Cases, By J. W. LONG.
5. Dilatation of the Stomach, with Special Reference to 48 Cases, By JOHN J. GILBRIDE.
6. Lessons Learned in Abdominal Postmortems, By BYRON ROBINSON.

1. **Gastroptosis.** — Beyea, while reviewing gastroptosis and its treatment, devotes the greater part of his paper to the operation of gastropexy devised by him in 1898. The author has operated by this method five times, and has the histories of six other patients subjected to similar treatment by other operators. In all these cases, which have now been under observation from eight months to six years, the improvement in health has been remarkable and the relief from symptoms complete. In no instance, regardless of the time which has elapsed since operation, has the stomach changed its position. It should be noted that the patients thus far operated upon represent but one class, those with gastroptosis and without relaxation of the abdominal walls or diastasis of the recti muscles. The principle of this operation is that by placing three rows of interrupted silk sutures from above downward, and from right to left through the gastrohepatic and gastrophrenic ligaments, a single, broad, transverse fold or plication is formed in the ligaments, shortening these ligamentary supports and elevating the stomach to normal position. The normal ligaments are shortened and the stomach elevated to position without in the least disturbing the physiological mobility of the organ.

3. **Abortive Typhoid Fever.**—Briggs, in a recent epidemic, had under his care seventeen cases of typhoid fever. Five of these cases, which were of the mild or abortive type, form the basis of his paper. They are reported in detail. One must not confound these two types of enteric fever. Abortive typhoid fever may not be mild, and mild typhoid fever may be of long duration. From a study of his own cases and of the literature the author attempts to give a composite picture of these two forms of typhoid fever. The importance of having a clear conception of these cases is twofold: (1) For the patient's sake; for typhoid fever is always a dangerous disease, and while nothing can be done to decrease its severity, much can be done to increase it. (2) For the sake of the community; since the disease can be as easily spread from a mild case as from a severe one.

4. **Gunshot Wounds of the Abdomen.**—Long reports six cases of penetrating gunshot wounds of the abdomen. Five cases were operated upon. Of these patients three recovered and two died. The unoperated case also died. The author concludes his paper with this advice: (1) Consider all abdominal wounds as penetrating till the contrary is proved by exploration. (2) Consider all penetrating wounds as having injured the viscera, and operate. (3) Operate promptly, at the first possible moment. (4) Inspect carefully every viscus that could possibly be injured. (5) Make a careful toilet of the peritonæum. (6) Use salt solution freely in the abdomen, under the skin, and in the bowel.

5. **Dilatation of the Stomach.**—Gilbride discusses dilatation of the stomach in a formal manner, reviewing the ætiology, symptomatology, diagnosis, and treatment. In addition to this he analyzes the clinical features of forty-eight cases of dilatation of the stomach that have come under his observation. The chief signs and symptoms in these cases are tabulated according to their frequency.

BRITISH MEDICAL JOURNAL.

September 24, 1904.

1. The Relations of Rhinology, Laryngology, and Otology with Other Arts and Sciences, By SIR F. SEMON.

(Seventy-second Annual Meeting of the British Medical Association.)

Section in Physiology.

2. Discussion on Chloroform Anæsthesia. By SIR V. HORSLEY, B. MOORE, E. S. EDIE, and Others.
3. Addenda to the Discussion on Chloroform Anæsthesia, By A. D. WALLER, A. V. HARCOURT, and P. CHAPMAN.
4. On the Histological Changes Occurring in Ununited Divided Nerve, By R. KENNEDY.
5. On the Cells of the Spinal Ganglia, By F. GRIFFITH, and W. B. WARRINGTON.
6. The Protective Value of Proteids and Their Decomposition Products in Trypsin, By H. M. VERNON.
7. Some Points in the Metabolism of Diabetes, By A. P. BEDDARD, and E. I. SPRIGGS.
8. Further Investigations on Accommodation, By K. GROSSMANN.
9. The So Called Sanson-Purkinje Reflex Image of the Anterior Lens Surface, By K. GROSSMANN.
10. Some Changes Observable in Liver Cells During Activity, By E. W. CARLIER.
11. Some Points in the Physiology of the Mammalian Heart, By J. A. MACWILLIAM.
12. Action of Muscarine and Pilocarpine on the Heart, By H. MACLEAN.
13. The Elastic Tissue of the Eye in Birds, By E. W. CARLIER.

Section of Pathology.

14. Discussion on the Chemical Pathology of Gout, By C. VON NOORDEN, A. E. GARROD, I. WALKER-HALL, and Others.
15. The Reservoir Action of the Liver, By R. N. SALAMAN.

Subsection of Forensic Medicine.

16. A Suggestion on the Criminal Responsibility of Homicidal and Dangerous Lunatics, By F. J. SMITH.
17. The Klosowski Poisoning Case, By F. J. WALDO.
18. Infantile Mortality from Overlying, By W. H. WILLCOX.
19. Rigor Mortis in Stillborn Children, By C. H. W. PARKINSON.

2. **Chloroform Anæsthesia.**—Moore describes experiments up the formation of easily dissociable compounds or aggregates between chloroform and the proteids of the blood and tissues. The results tended to show that the production of anæsthesia was due to such aggregations; the activities of the protoplasm were thereby limited. The combinations only existed so long as an adequate pressure or concentration of the anæsthetic in solution was maintained; as soon as the pressure fell, the compound or aggregate dissociated and the cell became free to take up once more its normal activities. The existence of such compounds or aggregates was shown by (1) the greater solubility of chloroform in serum or hæmoglobin solutions than in saline; (2) the fact that with equal concentrations the pressure of the anæsthetic was much lower in the case of serum or blood than in the case of water or saline solutions; and (3) obvious changes which occurred in serum or blood and demonstrated an interaction between the proteid and the anæsthetic. With increasing proportions of chloroform in the inspired air a more than proportional amount was absorbed by the blood. As regards the action of chloroform upon cardiac and cerebral tissue, it produced its effects by acting upon protoplasm and not upon such substances as lecithin.

4. **Division of Nerves.**—Kennedy has studied the histological changes occurring in ununited divided nerves, and concludes that the changes which occur in a nerve, cut off from its peripheral terminations but still in connection with the centres, do not involve the atrophy of the nerve. The changes which do occur simply cause the production of a larger number of smaller fibres than is usually found in a normal nerve. These changes would be quite explained on Mayer's view that degeneration and regeneration are constantly taking place as a normal process in nerves. Thus the adult fibres, after a period of life, degenerate and the neurilemma cells produce the young nerve fibres which are destined to take their place. Cut off from their peripheral terminations but still retaining the connection with the centres, the nerve fibres are still under the influence of the nerve impulses, although not in a condition to conduct them to their terminations. The effect of the impulses on development of the fibres still remains, in part at least, and in consequence the nerve fibres may develop to the adult condition. On this view the adult nerve fibres seen on section are not the original adult fibres, but newly developed fibres which have attained the normal dimensions.

7. **Diabetes.**—Beddard and Spriggs, as a result of their study of cases of severe diabetes, find that the bad effects, such as nausea, weakness, loss of weight, odor of acetone in the breath, etc., which follow the too rapid withdrawal of carbohydrates from the food of a severe diabetic, are associated with the same signs and symptoms of acid poisoning as coma itself. The most marked change in the urine is a rapid rise in the proportion of ammonia.

They found that the administration of alkali produces just the opposite effects to a diabetic diet as regards the ammonia, and causes a general improvement in the condition of the patient and a disappearance of the odor of acetone. The alkali was given in considerable quantity—75 grains in 24 hours, divided into four doses. It would therefore seem advisable to use this drug when a patient is being transferred from an ordinary diet to one poor in carbohydrate, and especially to a rigid diabetic diet. When the object of the alkali is attained the urine becomes neutral: it should then be stopped. The odor of acetone and the weight of the patient are better guides than the amount of sugar in the urine.

12. **Muscarine and Pilocarpine.** — Maclean states that muscarine and pilocarpine, when given in small doses, act not on the cardiac muscle directly, but upon the inhibitory mechanism, and upon the terminal parts of that mechanism, not upon ganglion cells.

14. **Gout.**—Von Noorden begins the discussion on the chemical pathology of gout with a general review of the subject. There is sometimes a real retention of uric acid in the body, which is followed by an increased excretion of uric acid in the urine. But the uric acid contents of the blood do not vary in a typical manner with the phases of gout, and we do not know what are the compounds that circulate. Gouty deposits consist of sodium biurate: uric acid is a poison determining inflammation in the surrounding tissues, but only when the solution is sufficiently concentrated. The solid needles are non-irritating. Alterations of the alkalinity of the blood and tissues cannot explain the deposition and the solution of the crystals: this solution of solid needles is a phagocytic process. It is probable that the crystals are deposited before the acute attack and that the acute gouty inflammation depends on their sudden solution. As regards the form in which uric acid circulates in the blood it has been very plausibly suggested that the normal organism has at its disposal a number of organic substances with haptophorous side chains for catching and dissolving uric acid. Out of such combinations the kidneys eliminate uric acid. Deviations from the normal may arise when the influx of uric acid to the blood is too great, or when the sum of the uric acid binding substances is too small. As regards treatment all are agreed that food containing an excess of purin bodies is to be avoided. Alcohol is very injurious in gout, probably interfering with the formation of uric acid haptophorous chains. Alkalies in every form are utterly useless: indeed in true gout they cause an actual retention of uric acid. Salicylic acid is a powerful but dangerous uric acid eliminant. The water of certain saline springs (notably the Homburg Elizabeth spring) brings about a striking and remarkable increase of uric acid in the urine.

Hall has studied the excreta of gouty patients and gives the following summary of his conclusions: 1. The endogenous purins are increased by the administration of sodium salicylate, and this increase does not arise from excessive cell destruction, but probably from diminished destruction of already formed uric acid. 2. The exogenous purins are metabolized by gouty patients almost as well as by normal individauls, any slight retention being due to increased capillary pressure and subsequent slowing of the lymph stream, and not to the formation of abnormal compounds. 3. The endogenous purin in gouty individuals may possess peculiar affinities and combine with abnormal products of proteid metabolism. 4. The presence of constipation in gouty patients is accompanied by an increased output of uric acid, this excess, however, apparently arising from diminished destruction of the formed uric acid.

19. **Rigor Mortis in Stillborn Children.**—Parkinson states that in a case of suspected infanticide, or where the question of live birth comes in, any evidence that the limbs and body have been drawn up while in a state of cadareric rigidity into the shape in which the body is moulded *in utero* is a strong evidence of stillbirth.

LANCET.

September 24, 1904.

1. Arterial Sclerosis, Especially in Regard to Arterial Hypermyotrophy and the Other Morbid Changes Which Occur in the Muscular Tunic of the Arteries, By T. D. Savill.
2. Fever in Children Caused by the Indigestion of Certain Kinds of Carbohydrate Foods, By H. Davy.
3. An Analysis of 150 Cases of Death from Bronchopneumonia, By P. Hardy.
4. A Plea for the More Extensive Use of Tuberculin as a Curative and Prophylactic Measure, By A. S. F. Grünbaum.
5. A Case of Perforated Duodenal Ulcer; Operation; Recurrent Hæmorrhage; Gastroenterostomy; Recovery, By H. W. Allingham, and R. Thorpe.
6. A Case of Hæmatoporphyrinuria Not Due to Sulphonal, By G. L. Thornton.
7. The Channels of Infection in Tuberculosis in Childhood, By L. Kingsford.
8. Some Points in the Prevention of Epidemic Diarrhœa, By J. T. C. Nash.
9. A Case of Nephritis Simulating Diabetes Insipidus, By J. B. Blaikie.
10. Death Certification, By W. Berry.
11. A Note on the Pathology of Lateral Curvature of the Spine, By G. C. Steele-Perkins.
12. The Evolution of Man's Diet (III), By H. Campbell.

1. **Arterial Sclerosis.**—Savill's main contentions are: 1. That the pathology of the different tunics of the arterial system should be studied separately, just as are the different coats of the heart. 2. Careful histological methods and a large number of specimens are necessary before generalizations can be made; neutral and acid orcein stains are valuable aids. 3. That advanced atheroma and a considerable degree of intimal and adventitial sclerosis may exist without serious consequences and be compatible with extreme old age provided the muscular tunic is unaffected. 4. The prime importance of the muscular tunic relatively to the intima and adventitia, in that it constitutes the functionally active structure of the arterial system and the regulator mechanism of the whole body. 5. The existence of arterial hypermyotrophy as a substantive generalized change in the arterial system. 6. The importance of

its recognition by reason of the potential evils in the way of circulatory derangement, circulatory accidents, nutritional disturbances, disturbance of the balance between the heart and arteries, and the degenerations which are apt to ensue. 7. It is the first step towards senile (or generalized) decay and is the main cause of senile or postural vertigo at any age. The combination of arterial hypermyotrophy and focal necrosis of the media is a most deadly one and may produce death by hæmorrhage at a comparatively early age. 8. Arterial hypermyotrophy may result from chronic renal disease, but it has many other causes, all of which probably produce the condition by high arterial tension.

2. **Fever of Indigestion.**—Davy reports in detail the case of his son who suffered from attacks of fever caused by the indigestion of certain kinds of carbohydrate food. Such cases were well described by Tustace Smith under the head of Acute Febrile Gastric Catarrh. The author believes the fever is due to an autointoxication from the products of fermentation of particular mixtures of starchy foods. It is possible that the pancreatic digestion is not proportionate to the age of the patient. The case here reported was cured by withholding potatoes, carrots, puddings, jams, etc., from the dietary, and the use of sitz baths, beginning at a temperature of 100° to 105° F., and ending with a douche at 75° F., and a brisk rub down.

3. **Bronchopneumonia.**—Hardy analyzes 150 fatal cases of bronchopneumonia, and brings out the following points. All the children were under 13 years of age, and 138 were under 4 years. Sex: 85 of the cases were in boys, and 65 in girls. Of 64 cases under 4 years of age, 32 were breast fed and 32 were bottle fed. But, estimated on the number of cases that occur, the mortality from bronchopneumonia is 7.7 times as great in bottle fed as in breast fed children. Well marked signs of rickets were present in 16.7 per cent. of all the 150 cases. As regards exciting causes, 15 cases followed measles, 8 meningitis, 5 otitis media, 3 pyæmia, 2 administration of anæsthetics, and 2 typhoid fever. Both lungs were affected in 132 cases, the right lung alone in 9, and the left alone in 9 also. Confluent or massive bronchopneumonia was present in 6 instances, and suppurative bronchopneumonia in 15. Acute fibrinous pleurisy was present in 15 cases, and serous pleurisy in but one. Empyema occurred in 16 cases.

4. **Tuberculin.** — Grünbaum states that the clinical results of tuberculin more than justify its use, and urges that it be more extensively employed, especially in sanatoria. Not only has it a direct curative action, but it also stimulates the production of curative bodies against the tubercle bacillus. He uses only the Neu-Tuberkulin (Bacilli Emulsion of Koch), and follows instructions carefully, thus avoiding violent reactions. At first the patient is kept in the hospital: later when the dose has reached 0.75 cubic centimetre, one injection is given every week. The total period of injections extends over three to six months.

6. **Hæmatoporphyrinuria.**—Thornton reports a case of hæmatoporphyrinuria occurring in a man aged forty-five years. The patient complained of diarrhœa and of his urine being of a port wine color. The movements consisted chiefly of blood stained mucus. The patient had not taken sulphonal, and the case comes under the head of those in which the presence of abnormal pigment is due to intestinal hæmorrhages. The patient made an uneventful recovery.

7. **Infantile Tuberculosis.**—Kingsford has studied the various modes and channels of infection in tuberculosis in childhood, with a view of determining whether tuberculous milk is a danger to the community. He states that the danger from inhalation far exceeds that from the ingestion of tuberculous material. However great the potential danger of tuberculous milk may be, the real danger is in many quarters greatly exaggerated, probably owing to the children not drinking the tuberculous milk of the virulence and in the quantity usually affirmed. Still the fact that 20 per cent. of the cases of tuberculous disease among children in large English towns are of alimentary origin, makes out a good case against tuberculous milk. But while attention should rightly be directed towards the restriction of the sale of such milk, it is chiefly to the improvements in the conditions of life, cleanliness, ventilation, disinfection, and better housing, that a diminution in infantile tuberculosis must be looked for. The author suggests that the great difference between the American and English figures as to the occurrence of primary abdominal tuberculosis, may be accounted for by the greater frequency of tuberculous milk in England.

8. **Epidemic Diarrhœa.**—Nash states that the essentials for putting a stop to the great waste of infant life every summer are: (1) Clean milk supplies; (2) clean towns with well organized systems of sewage removal, dust collection and disposal, and street watering; (3) clean homes, where sufficient domestic hygiene prevails to understand the importance of clean utensils for food, the covering of food to protect it from dust and flies, and personal habits of cleanliness; and (4) inhibition of fly life.

11. **Lateral Curvature.**—Steele-Perkins tells us that in cases of lateral curvative of the spine, where there is a lateral deviation without rotation, no structural changes are present; there are only weakness and want of development of the muscles. In severe cases where rotation is present, the bodies of the vertebræ become very dense in structure on the side of the concavity and their cancellous tissue even becomes compact. The spinal muscles may even undergo fatty degeneration and fibroid change. The respiratory capacity of the thorax is diminished, and the pelvis is more or less altered in shape. A general want of muscular strength, if associated with some determining factor, causes a lateral deviation of the spine, which when persistent and if more than to a limited degree, and accompanied as it is with a weakening of the spinal ligaments, must of necessity give rise to rotation of the bodies of the vertebræ. Such determining factors are the standing or sitting in wrong attitudes.

Proceedings of Societies.

INTERNATIONAL CONGRESS OF ARTS AND SCIENCE.

Meeting in St. Louis, Wednesday, September 21, 1904.

DEPARTMENT OF PUBLIC HEALTH.

Dr. Walter Wyman, Surgeon General of the Public Health and Marine Hospital Service, in the Chair.

The Relation of Public Health Science to Other Sciences.—Professor William T. Sedgwick, of the Massachusetts Institute of Technology, read a paper in which he said that public health science had its rise in the eighteenth century. Before that time numerous procedures to protect or promote public health had existed, but they were wholly empirical and as often directed to the convenience of mankind as to their safety. To that class belonged the Mosaic code, the water supply introduced into Jerusalem by Hezekiah, and the early and often futile forms of quarantine. The principle for inoculation of smallpox was long used in the East empirically, but it had no scientific basis. In the middle of the eighteenth century Sir George Baker made the first scientific discovery in public health science in epidemiology, namely, that an epidemic of colic in Devonshire was due to lead poisoning conveyed through the common cider of that district. The foundations of state hygiene and sanitation were laid in 1774 by an act of Parliament providing for the sanitation of jails and prisons. In 1796 Jenner laid the foundations of personal hygiene and immunization by showing how to produce at will such modifications of the physiological resistance or susceptibility as to make a person immune to smallpox. The importance of those discoveries was incalculable. They contained the germs of the most important divisions of public health science. Then came the work of Pasteur, Lister, and Koch. From 1880 to 1890 might be called the decade of ætiology. Then were discovered the microbes of typhoid, tuberculosis, malaria, Asiatic cholera, diphtheria, and tetanus. With the exception of the changes effected by the acceptance of the theory of organic evolution, no modification of human knowledge more profoundly affected the general condition of life than the attitude toward nature and the causation and prevention of disease—the attitude toward public health problems. The science grew by synthesis rather than by analysis. There was an extraordinary awakening in England in the middle of the nineteenth century to the importance of sanitation, but there was no marked inosculation between public health science and other sciences, such as physics, chemistry, climatology, engineering, or education, until Pettenkofer and his disciples in Germany and Angus Smith in England began their splendid work in sanitary chemistry. The speaker believed that students of public health science had been inclined to underrate the past services and present relative importance of sanitary chemistry. Few more important contributions had ever been made to public health science than the chemical work of the State Board of Health of Massachusetts under the direction of President Drown, or the chemical studies of the rivers of Illinois by the late Professor Palmer. The next twenty-five years would probably see a return to the patient and exact studies of the environment such as the chemist and physicist began in the middle of the nineteenth century. Such studies, while being directed largely to further knowledge and control of environment, would not end there, for personal hygiene was to-day one of the most inviting fields for work and education, for the right use of the individual human mechanism reacted favorably upon public health, and the improved condition of environment tended to promote the welfare of the individual. The science of architecture, including the heating and ventilation of buildings, had done much of importance for the air supply of civilized mankind, which was as important as the water supply or the milk supply or any other supply. In the proper construction, lighting, water and gas supply, and drainage modern engineering rendered to public health science greater service than any other science except medicine. In no respect had the services of the engineer been more conspicuous than in the application and study of the principles involved in water purification, but there engineering science was still in its infancy. As to the reciprocal relations of public health science and education, the schools from top to bottom, from technical and medical departments down to the primary, neglected wholly any adequate training of their pupils in public health science. As to the function of medical education in the dissemination of public health knowledge, even the best medical schools devoted very little time to any adequate instruction. If it was true that the pressing necessity for practical medical instruction forbade such teaching, then the community would have to look elsewhere than to the medical profession for adequate legislation and the administration of public health laws. Men were to-day crowding into the cities as never before, and the age was characterized to an extraordinary degree by a sedentary life; hence the problem of the maintenance of a high degree of physiological resistance had become a serious one, and the consideration of personal hygiene had a direct bearing upon the science of public health.

The Chairman, referring to remarks by Dr. E. J. Lederle, of New York, as to the need of a national board of health, said that there had been recent legislation that provided for every feature of a national board of health. As to the examination of the manufactories of toxines and sera, some four or five manufacturers had gone out of business in the past year rather than stand the inspection, and others had remodeled their methods so that they might obtain a government license. The national health organization was in control of an hygienic laboratory for the investigation of contagious diseases. There had been organized a medical corps of about four hundred trained medical officers scattered over the United States. In practical administration, in bringing about sanitary conditions, it was difficult for the general government to make itself felt, for it was undesirable to encourage the weak to lean upon the strong. It was the intent of Congress that the State boards of health should be brought in contact with the national board, but not be dependent upon it.

Section B, Preventive Medicine.

Dr. Joseph M. Mathews, of Louisville, President of the State Board of Health, of Kentucky, in the Chair.

The Logical Basis of the Sanitary Policy of Mosquito Reduction.—Professor Ronald Ross, F. R. S., of Liverpool, gave a review of what had been accomplished in the attempt to exterminate mosquitoes. He said it had not yet been possible to prove accurately to what extent the number of mosquitoes had been reduced, hence experiments along that line were not what could be desired. The method of securing this reduction was the arrest of propagation. Four factors entered into the variation of the number of animals in any locality: the birth rate, the death rate, emigration, and immigration. The migration of the mosquito played an important part in the subject. It seemed probable that most mosquitoes remained in their native haunts, but few migrating to the limit. The whole problem rested on a mathematical basis. It had been assumed that a few of the animals would reach the limit of migration, that others would go beyond the limits of their original neighborhood, and that the majority would not go beyond those limits. If the propagation of mosquitoes was arrested, the limit of migration would be free from them. If the area treated was too small, there would always be mosquitoes, for emigration would fill up the gaps in their ranks caused by arrest of propagation. Thus four theories were presented: first, that mosquito density could be reduced by making the radius of this field large enough; second, this radius must be greater than the limit of emigration in order to rid any point of mosquitoes; third, at the boundary of the district treated the number of mosquitoes would be less than half the normal number, if the radius of operations had not been less than half the limit of migration; fourth, the effects of the treatment would be felt beyond the limits of migration.

(To be continued.)

MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

Fifty-fourth Annual Meeting, held in Pittsburgh on Monday, Tuesday, September 26 and 27, 1904.

(Continued from page 714.)

Specialism, Its Evils and the Remedy.—Dr. Boardman Reed, of Philadelphia, had prepared a paper which was read by title. The author stated that the increase of specialism was a growing evil, causing a loss to the family physician and often working confusion in the management of a case by reason of incompatible lines of treatment prescribed by different specialists independently of each other. Also it was expensive to patients. Yet under present conditions it was unavoidable, if the very best advice and treatment were to be had. The remedy must be two-fold: 1. A more prolonged and thorough medical course for all doctors. 2. A much longer medical training and decidedly higher standard for consultants than were now required, besides the enforcement of a rule that consultants should not engage in general or family practice.

Indicanuria Complicating Typhoid Fever was the title of a paper by Dr. Judson Daland, of Philadelphia, who, after referring to various tests for indican, advised certain modifications by which more reliable and uniform results could be obtained. He referred to the association of the absorption of the results of putrefaction, in the intestines, with indicanuria, and dwelt upon the frequency of indicanuria as a complication of typhoid fever, based upon observations extending over a period of almost a decade.

When indican was present, he strongly urged antisepsis of the mouth and local treatment of the nasopharynx and the sinuses connected therewith, believing that the secretions from these lesions when diseased and when mixed with food especially milk, caused rapid decomposition and fermentation. He advised the use of calomel and phosphate of sodium, the free use of pure water, and a strict adherence to a peptonized milk diet, with the administration of broths twice daily.

As a preparatory treatment, while the gastrointestinal tract was being cleared of its contents, he recommended the exclusive use of animal broths. When indicanuria persisted, despite these measures, he recommended the employment of one or two quarts of a warm normal salt solution for irrigating the colon, introduced by means of a long, soft rubber tube. When ulceration was active, or if there was any reason for believing that hæmorrhage might take place, the treatment for indicanuria should be omitted; and, as a rule, he recommended the omission of this treatment during the third week, unless toxic symptoms were serious.

Remarks on Some New Clinical Methods was the title of a paper read by Dr. H. E. Wetherill, of Philadelphia, in which he treated of a centrifuge for the examination of blood and urine in which the speed was secured by means of a twisted cord, and also of an instrument for the measurement of perspiration.

A Study of Progress in the Treatment of Skin Diseases was the title of a paper read by Dr. John R. McCurdy, of Pittsburgh, in which he reviewed the various remedies that had been employed and stated that up to the middle of the nineteenth century there seemed to have been but little scientific investigation in the field of dermatology. He referred to the Röntgen rays and the Finsen light treatment, which he stated were yet in their infancy.

The Treatment of Skin and Glandular Diseases by the X Ray was the title of a paper read by Dr. Russell H. Boggs, of Pittsburgh, in which he stated: Technique is largely responsible for both successful and unsuccessful results. In the treatment of lupus, epithelioma, carcinoma, acne, eczema, and tuberculosis, the x ray is an excellent remedy. In most cases of carcinoma the combination of x ray treatment and surgery offered the best chances of recovery. He dwelt particularly upon the importance of dosage and persistence in the treatment after the apparent termination of the disease, and reported the results of twenty-seven cases of lupus vulgaris, two cases of lupus erythematosus, thirteen cases of primary epithelioma, and several cases of acne, chronic eczema, and birth marks.

(To be continued.)

Book Notices.

Contributions from the William Pepper Laboratory of Clinical Medicine, University of Pennsylvania. (Reprints.) No. 4. Philadelphia, 1903.

This volume contains a number of interesting reprints of papers on various subjects in neurology, medicine, histology, and pathology from the William Pepper Laboratory of Clinical Medicine. Many of the papers are well illustrated.

Physician vs. Bacteriologist. By Professor Dr. O. ROSENBACH. Authorized Translation from the German by ACHILLES ROSE, M. D. New York and London: Funk & Wagnalls Company, 1904. 12mo, pp. xiv-462. (Cloth, $1.50.)

We will not question the sincerity of the author of this work, which indicates a certain recognition of bacteriology as a biological science, but the general tone of the reasoning may be judged from the translator's summary: "The bacteriologists, by means of fallacious conclusions, have established—in opposition to all common sense—the dogma that all infectious diseases are caused by bacteria and that all diseases in which so called specific bacteria are found are infectious diseases." We hold no brief for the bacteriologists, but in general they have made the impression that they are among the most useful implements in the clinician's armamentarium, and their conclusions have not impressed the profession generally as in opposition to common sense. So far as we can judge, the profession in America does not believe that there is any contest between the physician and the bacteriologist.

Food Inspection and Analysis. For the Use of Public Analysts, Health Officers, Sanitary Chemists, and Food Economists. By ALBERT E. LEACH, S. B., Analyst of the Massachusetts State Board of Health. New York: John Wiley & Sons. London: Chapman & Hall, Limited, 1904. Pp. xiv-787. (Cloth, $7.50.)

It is now more than twenty years since Massachusetts, whose officials have so frequently been pioneers in all that pertains to the public welfare, adopted a practical system for the inspection of food and drugs; and the precedent established has been followed slowly by many other States, as the evidence increased that there was urgent need of protecting the people from adulterated or noxious food products. It is, therefore, quite appropriate that an official of the Massachusetts State Board of Health, a chemist of the experience of the author, should prepare a work to meet the requirements of such officials as are engaged in enforcing the provisions of the laws that pertain to the suppression of food adulteration. The author has also had in view a wider and perhaps more important field than the determination of adulteration, for he has followed the lines developed by the Department of Agriculture in the determination of the actual composition and nutritive value of foods.

After describing the laboratory and its equipment, reviewing the proximate components and nutritive values of food, and referring to general analytical methods and the use of the microscope, the author devotes a chapter to a comprehensive description of milk and milk products. Chapters are devoted to the structure, composition, and analysis of flesh foods, of eggs, of cereals and their products, of legumes, of fruits, of tea, coffee, and cocoa, of spices, of edible oils and fats, of sugar and saccharine products, of alcoholic beverages, and of vinegar. Separate chapters describe the objectionable features and toxic effects, as well as the methods of detection of artificial food colors, the employment and the methods of detecting food preservatives, the use and detection of artificial sweeteners, and the preparation, composition, and adulteration of canned and bottled vegetables, relishes, and fruit products.

The work is well illustrated; there are some fine drawings of the microscopical structure of powdered tea, coffee, cocoa, and the spices, and a series of half tone photomicrographs of powdered pure food and food products and of powdered adulterants. The volume merits and is likely to have a wide popularity both as a textbook and as a work for reference.

Magee and Johnson's Epitome of Surgery. A Manual for Students and Practitioners. By M. D'ARCY MAGEE, A. M., M. D., Demonstrator of Surgery and Lecturer on Minor Surgery; and WALLACE JOHNSON, Ph. D., M. D., Demonstrator of Pathology and Bacteriology in Georgetown University Medical School, Washington, D. C. With 129 Engravings. Philadelphia and New York: Lea Brothers & Co., 1904. Pp. 295. (Cloth, $1.00.)

This work aims to present in a clear, brief, practical manner a fair survey of general surgery and of x ray work in surgery. Necessarily it cannot be comprehensive, and many details have had to be omitted. The student will find the arrangement practical, and the questions at the end of each chapter make the work suitable for quizzing.

The Treatment of Some Acute Visceral Inflammations, and Other Papers. By DAVID B. LEES, M. A., M. D., Cantab., F. R. C. P. Lond.; Formerly Scholar of Trinity College, Cambridge; Senior Physician to the Hospital for Sick Children, etc. Philadelphia: P. Blakiston's Son & Co., 1904.

This book includes a reprint of the author's lectures before The Harveian Society of London in 1903, and of papers that have appeared in various medical journals. The lectures were on carditis, pericarditis, pneumonia, empyema, pleurisy, inflammation of the vermiform appendix, and nephritis, and they advocated a careful determination of the size of the left ventricle and of the right auricle in all diseases of the heart and lungs, and the relief of a distended right heart by leeches or venesection. The value of the external application of ice in the diseases mentioned is explained. The administration of larger doses of sodium salicylate than usual is advised in acute rheumatism and in chorea, provided still larger doses of sodium bicarbonate are given at the same time.

The therapeutic recommendations made by the author are based on a carefully considered clinical experience, and this volume will be suggestive and useful to the clinician.

The Principles of Hygiene. A Practical Manual for Students, Physicians, and Health Officers. By D. H. BERGEY, A. M., M. D., Assistant Professor of Bacteriology, University of Pennsylvania. Second Edition. Philadelphia, New York, London: W. B. Saunders & Co., 1904. Pp. 536.

That the first edition of this work has been exhausted in two years is an evidence of a deserved popularity and an increased interest in the important subject of sanitary science. The author has taken advantage of the opportunity afforded by a new edition to revise many sections and to eliminate some topics that were obsolete. The work gives the impression of being up to date and worthy of a continuance of the favorable reception that has been accorded it.

A Textbook of Physiological Chemistry. For Students of Medicine and Physicians. By CHARLES E. SIMON, M. D., of Baltimore, Md. Second Edition, Revised and Enlarged. Philadelphia and New York: Lea Brothers & Co., 1904. Pp. xx-500.

In our notice of the first edition of this excellent work acknowledgment was made of the eminently practical character of the author's methods. In the new edition are embodied the results of many important papers which have appeared in current literature since the first edition went to press, and many sections have been entirely revised in the light of more recent discoveries. In its present revised and enlarged form the book is more than ever valuable, both as a textbook for students and as a work of reference.

A Textbook of Materia Medica. Including Laboratory Exercises in the Histological and Chemical Examination of Drugs. For Pharmaceutical and Medical Schools and for Home Study. By ROBERT A. HATCHER, Ph. G., M. D. Instructor in Pharmacology, Cornell University Medical School, New York, etc., and TORALD SOLLMANN, M. D., Associate Professor of Pharmacology and Materia Medica in the Medical Department of Western Reserve University, Cleveland, Ohio. Illustrated. Philadelphia, New York, London: W. B. Saunders & Co., 1904. Pp. 411. (Flexible leather, $2.00.)

The superiority of the objective method over the didactic in the teaching of natural sciences is becoming more generally recognized and is applied in the volume before us to the study of organic materia medica with eminently satisfactory results, as it appears to us. The student is led to the study of the microscopical anatomy of plant sections in a very practical manner, the forms of cells being studied primarily and the physiological functions of the tissues secondarily. The student is required to recognize and describe tissue elements, and special stress is laid on the recognition of adulteration. The main effort of the teachers being directed to teaching by actual experimental demonstration, all the histological descriptions are supplemented by laboratory exercises of important drugs, the student being made acquainted in this way with the varied cellular construction of different drugs. Part I of the book does not show so much evidence of originality as the histological section, consisting chiefly as it does of extracts from the U. S. Pharmacopœia, but it forms an excellent supplement to that work, being a synopsis of the official drugs of vegetable origin. The plan of the book is well conceived and it will undoubtedly fulfil its intended purpose.

PUBLISHERS' ANNOUNCEMENT.

FRANK F. LISIECKI, 9 to 15 Murray Street, New York: Announces for early publication The Surgical Treatment of Bright's Disease. By GEORGE M. EDEBOHLS, A. M., M. D., LL. D., Consulting Surgeon to St. Francis Hospital; Professor of the Diseases of Women in the New York Post-graduate Medical School and Hospital, etc. Octavo. Pp. 327. With 2 cuts. (Price, $2.00). Dr. Edebohls's account of his remarkable experiments in renal decapsulation will be awaited with interest.

BOOK AND MAGAZINE NOTES.

The Illinois State Board of Health has issued a third revised edition of its pamphlet on the Cause and Prevention of Consumption, the first edition of which was published in July. Illinois is recommended as a suitable place for the treatment of consumption, and attention is directed to climatic conditions, elevation and soil, which are equally as good as, and in some instances superior to those found at the tuberculosis sanatoria of Massachusetts, New York, and Pennsylvania. Copies of this pamphlet may be obtained on application to the secretary of the department in the city hall. Those interested in the study may also obtain, in the same manner, the volume, Vital Statistics of the City of Chicago, for four years, up to January, 1904.

A Corner in Antitoxine, by Dr. A. Cary Seely, is a story in *Leslie's Monthly Magazine,* which shows the dire effects to the community should physicians ever join in a trust. To the general public the story may ring true, but it is palpably absurd to physicians. The idea of members of the profession planning to make money out of an epidemic is unworthy of the physician author. Other stories in the number, noticeably The Shark, and The Heiress's Love Story, are excellent.

We have read with great interest the articles on Frenzied Finance which have appeared in recent numbers of *Everybody's Magazine,* and, for the benefit of our confrères who may not have had time to profit thereby, hasten to warn them not to accept blocks of stock in the Standard Oil Company, for professional services rendered, in lieu of cash. The consequences to their descendants, as we understand the matter, may be serious; the improperly acquired millions being likely to be wrenched from them by an ill informed and unscrupulously directed proletariat.

BOOKS, PAMPHLETS, ETC., RECEIVED.

Essentials of Chemistry, Organic and Inorganic. Containing also Questions on Medical Physics, Chemical Philosophy, Medical Processes, Toxicology, etc. By LAWRENCE WOLFF, M. D., formerly Demonstrator of Chemistry at the Jefferson Medical College, Philadelphia. Sixth Edition, Thoroughly Revised. By A. FERREE WITMER, Ph. G., formerly Assistant Demonstrator in Physiology at the University of Pennsylvania. Pp. 225, fully Illustrated. Philadelphia, New York, London: W. B. Saunders & Co., 1904. [Cloth, $1.00 net.]

Nervous and Mental Diseases. A Manual for Students and Practitioners. With an Appendix on Insomnia. By JOSEPH DARWIN NAGEL, M. D., Consulting Physician to the French Hospital of New York; Member of New York Academy of Medicine, etc. Series Edited by VICTOR COX PEDERSEN, A. M., M. D., Instructor in Surgery and Anæsthetist and Instructor in Anæsthesia at the New York Polyclinic Medical School and Hospital; Genitourinary Surgeon to the Out Patient Departments of the New York and the Hudson Street Hospitals, etc. Pp. 276, with 46 Illustrations. Philadelphia and New York: Lea Brothers & Co., 1904. [Cloth, $1.00 net.]

How to Cook for the Sick and Convalescent. Arranged for the Physician, Trained Nurse, and Home Use. By Helena V. Sachse. Second Edition, Revised and Enlarged. Pp. 297. Philadelphia: J. B. Lippincott Company, 1904.

Beauty Through Hygiene. Common Sense Ways to Health for Girls. By Emma E. Walker, M. D., Member of the New York Academy of Medicine, etc. Pp. 306, Illustrated. New York: A. S. Barnes & Co., 1904. [$1.00 net.]

Immune Sera. Hæmolysins, Cytotoxines, and Precipitins. By Professor A. Wassermann, M. D., University of Berlin. Authorized Translation by Charles Bolduan, M. D. First Edition, First Thousand. Pp. ix-77. New York: John Wiley & Sons. London: Chapman & Hall, Limited, 1904.

Twenty-seventh Annual Report of the Board of Health of the State of New Jersey, and Report of the Bureau of Vital Statistics, 1903. Pp. vii-682. Somerville, N. J.: The Unionist-Gazette Association, State Printers, 1904.

A Textbook of Histology. Including Microscopical Technics. By A. A. Böhm, M. D., and M. von Davidoff, M. D., of the Anatomical Institute in Munich. Edited with Extensive Additions to Both Text and Illustrations by G. Carl Huber, M. D., Professor of Histology and Embryology and Director of the Histological Laboratory, University of Michigan. Second Edition, Thoroughly Revised and Enlarged. Pp. 528, with 377 Illustrations. Philadelphia, New York, London: W. B. Saunders & Co., 1904. [Flexible Cloth, $3.50 net.]

Year Book of the Medical Association of the Greater City of New York. P. Brynberg Potter, A. M., M. D., Editor. P. 193. New York: The Medical Association of the Greater City of New York, June, 1904.

Examination of the Urine. A Manual for Students and Practitioners. By G. A. De Santos Saxe, M. D., Assistant Pathologist to the Columbus Hospital, New York; Member of the American Urological Association, etc. Pp. 391, fully Illustrated, including 8 Colored Plates. Philadelphia, New York, London: W. B. Saunders & Co., 1904. [Flexible leather, $1.50 net.]

A Textbook of Clinical Diagnosis. By Laboratory Methods. For the Use of Students, Practitioners, and Laboratory Workers. By L. Napoleon Boston, A. M., M. D., Associate in Medicine and Director of the Clinical Laboratories, Medicochirurgical College, Philadelphia; formerly Bacteriologist at the Philadelphia Hospital and at the Ayer Clinical Laboratory of the Pennsylvania Hospital. Pp. 547, with 320 Illustrations, many of them in Colors. Philadelphia, New York, London: W. B. Saunders & Co., 1904. [Cloth, $4.00 net; sheep or half morocco, $5.00 net.]

Lectures to General Practitioners on the Diseases of the Stomach and Intestines. With an Account of Their Relations to Other Diseases and of the Most Recent Methods Applicable to the Diagnosis and Treatment of Them in General; also The Gastrointestinal Clinic, in which all Such Diseases are Separately Considered. By Boardman Reed, M. D., Professor of the Diseases of the Gastrointestinal Tract, Hygiene, and Climatology in the Department of Medicine of Temple College, Philadelphia; Attending Physician to the Samaritan Hospital, etc. Pp. 1021, Illustrated. New York: E. B. Treat & Co., 1904. [$5.00 net.]

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Miscellany

Spontaneous Tetanus, or rather tetanus occurring after insignificant wounds, which have been cicatrized for several weeks under the influence of hyperthermia, is frequent in tropical countries. M. Vincent, a member of the Paris Academy of Medicine, has made a study of this subject. In his work, he recalls the fact that this tetanus is generally mortal in less than twenty-four hours. In war time, great surgeons, Larrey, Thierry, Fournier, have remarked the frequency of tetanus after hard marches in the burning sun. J. More and J. Brenton have likewise observed cases of tetanus in farm laborers after an insolation. It would thus seem, that, in hot countries, it would be useful to inject serum as a preventive antitetanic into such subjects as are exposed to the heat or sun, when these persons have previously had wounds susceptible of giving entrance into the system the bacilli of *Nicolaier.*

Over Forty Years a Hospital Patient.—Left deaf and dumb after a severe attack of scarlet fever when she was a child of 12 years, Miss Eliza Adams has passed 42 years in the Louisville City Hospital, in complete ignorance of who her parents were.

This peculiar character arrived in Louisville in the fall of 1862 from Nashville, Tenn. She had been deported with the crowds of women and children the United States Government sent out of that State when the armies of the North and South were making green pastures gory with the blood of the Civil War, and in the deportation she became separated from her parents and family.

In Nashville a great camp was prepared for the protection of these people, and for several weeks Eliza Adams was confined in this place. Finally she became ill of scarlet fever and, owing to her age, she was soon sent North. Raving in delirium, she reached Louisville and was taken to the City Hospital.

She had no friends, and no one who arrived in the same train with her knew her name or anything of her parentage. Finally, under the care of Mrs. Gary, the superintendent, she began to improve, and within five months after she reached Louisville became perfectly well so far as mind and body were concerned, but the ravages of the disease had destroyed her hearing and power of speech. Owing to her tender years her memory was also partially impaired, and after she had learned to talk by the sign language used by deaf mutes she was unable to throw any light upon her history. Shortly after she became well Mrs. Garey took compassion upon the afflicted orphan and adopted her as her daughter, giving her the name she now bears.

Many attempts have been made to learn something of her history and parentage, formerly by Mrs. Garey, before she died, two years ago, and later by friends connected with the hospital. These have been entirely unsuccessful, owing to the meager information which can be gleaned from her memories of younger days, and in all probability her parents have long since passed away.

Rules for Consumptives.—In order to check the spread of consumption the city authorities of Frankfort, Germany, have issued a set of rules to govern, so far as possible, the actions of consumptives. These rules, which are comprehensive and considered effective, were transmitted to this government in a report of United States Consular Clerk Murphy at Frankfort, and in part are as follows:

> Consumption of the lungs and throat (tuberculosis) is transmitted to healthy persons from the expectorated matter of consumptives and others when the expectorated matter, after it has dried and become reduced to dust, is breathed in by healthy persons.
>
> By making all such excretions harmless the spread of

consumption can be restricted and healthy persons can be protected.

In order to prevent the drying and reduction to dust of such matter, every consumptive and every person who coughs (often persons who cough do not know that they are ejecting bacilli of tuberculosis) should take care that it is received in spittoons or cuspidors, or in similar vessels containing a little water, or, still better, chloride of lime or salt water. The use of such liquids is advisable, because they prevent freezing and also the drinking of the water by domestic animals. No cougher should spit upon the floor or ground or in a handkerchief.

For receiving such matter cuspidors should be kept in the rooms of persons who cough and on the landings of staircases in all apartment houses, and especially in buildings and rooms of a public character (railway stations, hotels, restaurants, halls, theatres, schools, etc.).

These cuspidors should be 2 inches high and 8 to 10 inches in diameter. They should have smooth, slightly curved edges, and should be made of smooth glass, porcelain, china, or enameled iron. They should contain water to a depth of about four fifths of an inch. In places of public concourse a card should be attached to the wall bearing, in distinctly legible letters, the word "Cuspidor."

These vessels should be supplied in sufficient numbers. As the water evaporates, more should be added. In order to prevent the accidental spilling of part of the contents, or the overturning of the cuspidors, they should be suitably fastened, or they should have a form which obviates the danger. The cuspidors should be carefully emptied in water closets, and they should be daily cleansed with boiling water.

General cleanliness is the first condition for the successful protection of the public health. Consumptives should give especial attention to cleanliness. The sitting rooms and bedrooms of consumptives should have only such curtains, bed coverings and the like as can be easily washed. There should be no carpets on the floors and none on the staircases leading to such rooms. Upholstered furniture should be used as little as possible, and should always be covered with wash stuffs. Iron garden furniture with springs is the best substitute for upholstered furniture. It facilitates the cleaning and disinfection of the rooms and their contents. Mats which are to be laid in front of beds should be of washable jute.

The entire floors of such rooms should be washed daily for the purpose of removing dust, and even in winter the rooms should be properly aired daily for at least one hour. Once a week the rooms should be thoroughly cleaned, and they should be properly disinfected every third month.

Uncooked milk may also become a transmitter of consumption. The public is accordingly warned against its use.

Compliance with these rules, especially with those regulating the disposition to be made of dangerous matter, will remove an element of danger in the intercourse of healthy persons with consumptives and restrict the transmission of this most widespread of all diseases.

The Effect of Borax and Boric Acid on the Human Body.—Charles F. Dwight, M. D., Professor of Physiology in the Minneapolis College of Physicians and Surgeons, has contributed an article to the *Northwestern Lancet* which is the result of a very complete experimental investigation of the subject. Every detail of the investigations is fully described in the article. The author reaches the following conclusions:

1. That borax exerts no specific action upon the animal body.
2. That any effect it exerts is because of and by virtue of its mild alkalinity.
3. That the sum total of its effects upon digestion is not harmful.
4. That it exerts no ill effect upon the ingredients of the blood.
5. That it does not act as an irritant to the tissues generally or locally, nor cause pathological congestions.
6. That by its use nutrition is not impaired.
7. That it does not increase proteid metabolism.
8. That it is not cumulative within the body.
9. That borax in moderate amounts, 2 grammes or more daily, exerts no ill effects upon the adult body.
10. That in proportion of 9.5 per cent. it preserves fresh, sweet meat from putrefaction for long periods of time extending into months; while smaller quantities, even to 0.1 per cent. or less, have been shown in practical use to preserve for periods of less duration.
11. That putrefaction once begun is not arrested by it, nor its further progress checked.
12. That it is not a deodorant, removing from or concealing in putrefying meat, its offensive odor.
13. That all this is true of boric acid, also, except that any effect it exerts is by virtue of its mild acidity.
14. That boric acid may be taken in larger quantities than borax without harm.
15. That borax and boric acid, like anything naturally good, may become harmful when taken to excess.

Pneumonia: Some Points in Diagnosis and Treatment.—John Hay, M. D., M. R. C. P., Physician to the Liverpool Stanley Hospital, has a paper on this subject in the *Liverpool Medicochirurgical Journal* for June, 1904, based on the observation and notes of 150 cases of acute lobar pneumonia. These cases had come under his notice in the years 1899, 1900, when acting as assistant medical officer to Mill Road Infirmary. For permission to publish these cases he acknowledged his indebtedness to Dr. Raw.

Of the 150 cases 21 were admitted moribund or died within twenty-four hours of admission; after eliminating these there was a death rate of 31 per cent.

Alcoholic excess was much in evidence. It was admitted in 65 of the 150 cases, and of these 65, 37 died.

Under the heading of the physical examination he drew attention to the great value of a careful examination of both axillæ and of the site of the fissures, also the importance of remembering that with the patient lying on one side, the side uppermost frequently yielded, near the middle line of the back, a higher pitched note than the corresponding area of the other side, while the breath sounds heard on the side of the patient next the bed were not seldom diminished in intensity.

He then dealt with the question of cardiac strain, and the effect on the heart of the onset of hepatization, the toxæmia, the temperature, delirium, and struggling, and he emphasized the far greater importance of the condition of the myocardium in the prognosis than the existence of well compensated valvular disease, and brought forward numerous cases in support of this view. The signs of cardiac failure were then discussed, especial emphasis being laid on the importance of a careful definition of the deep cardiac dulness. This should be mapped out at the first examination and drawn on the chest with caustic silver nitrate, so that during the rest of the attack it might be possible to compare the shape and size of the heart at any time with that made out at the first examination. He pointed out the extreme gravity of the prognosis in cases where an irregularity of the pulse was present before the crisis, except in the aged or in those cases where there existed mitral stenosis.

The causes and treatment of sleeplessness, delirium with struggling and flatulent distention of the abdomen, were discussed, also the indications and contraindications for the administration of morphine.

Dr. John Hay was of opinion that the value of alcohol in the treatment of pneumonia was much overrated, owing to a misconception of its therapeutic action.

He showed that there was now a marked change of opinion in the views held by the profession with regard to alcohol.

Alcohol was of definite value when given in order to counteract the contraction of the peripheral vessels, such as occurred during the initial rigor, or when given as a narcotic to aid in the production of sleep.

It may also be of service during convalescence.

He pointed out that the consensus of scientific opinion was undoubtedly opposed to the view that in its specific action alcohol was a cardiac stimulant.

This being the case, it was futile and unscientific to take the onset of the signs of cardiac failure as any indication for its exhibition.

He strongly deprecated the routine treatment of severe pneumonia with alcohol, and regretted that it was so difficult to escape from the trammels of tradition.

He gave the results of 47 cases which were treated throughout without alcohol as compared with 103 cases which received alcohol when the orthodox indications for its use arose.

The patients in each class were, so far as possible, of a similar type, every patient suffering from pneumonia admitted on certains days of the week being placed in the one class, every pneumonia admitted on the remaining days being allocated to the other, without any regard to the severity of the attack.

After eliminating from both classes those admitted dying, the mortality in Class I (those who did not receive any alcohol) was 21.5 per cent., as compared with 36.5 per cent. in Class II.

After discussing these figures, he showed that the only serious difference in the treatment was the one of the administration or otherwise of alcohol, and that the great difference in mortality was in all probability largely due to that factor.

As both classes had been recruited with pneumonia patients simultaneously and automatically over a period of more than twelve months without any attempt at selection, it was very improbable that there would be any great difference between the two classes with regard either to the virulence of the infection or the severity of the toxæmia, or in the history of alcoholism.

It is suggestive that in both classes the average age worked out to 33 years.

The action and value of digitalis, strychnine, caffeine, and ammonium carbonate were discussed, and the treatment by the application of ice-bags to the abdomen was considered.

Medical Wisdom of Cervantes.—Cervantes, in *Don Quixote,* says that the beginning of a cure consists in the knowledge of the distemper, and in the patient's willingness to take the medicines prescribed to him by his physician.

Simple medicines are always more estimable and safe, for in them there can be no mistakes; whereas in such as are compounded, all is hazard and uncertainty.

A Doctor on Every Ship.—It is not alone on the transatlantic liner and the battleship that the doctor is found for, by some curious contortion of the language, the old cook is called the doctor. In this way, there is some one answering the title of doctor on every ship, though the bearer of the title by no means undertakes to assume the duties of the physician. The cook seems to pride himself on his ignorance of things nautical and, also on his possession of a bad temper. One of our readers writes us that when he queried "the doctor" regarding marine affairs, he received finally this answer: "Well, I guess you know as much as I'd like to know about a schooner, and that is, nothin'."

Lively Career of a Medical Journalist.—The brilliant journalistic feat of Dr. G. E. Morrison in securing for the *Times* the full text of the new treaty with Thibet, about which so much mystery hung, brings into prominence again the name of one of the members of the medical profession who has found fame in other fields than that for which they were designed. The *Medical Press,* for September 28, 1904, states that Dr. Morrison was born under the prosaic roof of Geelong College near Melbourne, and that the spirit of adventure early seized him. He first distinguished himself by voyaging in a canoe the whole length of the River Murray, which is to Australia what the Mississippi is to America. Not content with this, he next walked across the Australian continent from north to south, writing an account of his wanderings for the *Melbourne Age.* The same paper sent him on a voyage in a trading schooner among the Pacific Islands, and subsequently to New Guinea as leader of an exploring expedition. There his career nearly came to an end for he was badly wounded by a native spear; in fact, part of the weapon remained in his body for many months and was only finally extracted at Edinburgh, whither he had gone to study medicine. After graduation, Dr. Morrison started off on his travels, once more finding his way to the Rio Tinto mines in Spain, where he officiated as medical officer, and to Ballarat, where he was appointed the superintendent of the district hospital. It was, however, at Peking as special correspondent to the *Times* that he found his *métier,* and few will forget his well informed and prescient telegrams on the events preceding the Boxer rising. Lord Curzon, then under sceretary for foreign affairs, had finally to confess that the *Times* was better informed than the government. Medicine seldom leads its followers to fame as journalists, but so long as it possesses in its ranks men of the type of Dr. Morrison, it will have no cause to be ashamed of its performances in this respect.

Official News.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the week ending October 7, 1904:

Place.	Date.	Cases.	Deaths.
Smallpox—United States.			
Illinois—Chicago	Sept. 25-Oct. 1	3	1
Louisiana—New Orleans	Sept. 25-Oct. 1	1	
Massachusetts—Fitchburg	Sept. 25-Oct. 1	1	1
Massachusetts—North Adams	Sept. 25-Oct. 1	2	
New York—Buffalo	Sept. 25-Oct. 1	1	
Ohio—Cincinnati	Sept. 23-30	1	
Pennsylvania—Philadelphia	Sept. 25-Oct. 1	1	
Tennessee—Nashville	Sept. 25-Oct. 1	2	
Wisconsin—Milwaukee	Sept. 25-Oct. 1	1	
Smallpox—Foreign.			
Brazil—Bahia	Aug. 27-Sept. 3		1
France—Paris	Sept. 10-17	16	
Great Britain—Glasgow	Sept. 16-23	1	1
Great Britain—London	Sept. 10-17	1	
Great Britain—Manchester	Sept. 10-17	7	
Gt. Britain—Newcastle-on-Tyne	Sept. 10-17	6	
Italy—Palermo	Sept. 10-17	17	1
Mexico—City of Mexico	Sept. 3-17	7	4
Russia—Moscow	Sept. 3-10	4	1
Russia—Warsaw	Aug. 6-13		23
Turkey—Beirut	Sept. 10-17	Present.	
Turkey—Constantinople	Sept. 11-18		22
Venezuela—La Guayra	Sept. 10-17	Present.	
Yellow Fever.			
Mexico—Tehuantepec	Sept. 18-24	2	2
Venezuela—La Guayra	Sept. 17	Present.	
Cholera.			
India—Bombay	Aug. 31-Sept. 6		18
Turkey—Bagdad and vicinity	July 31-Aug. 20	423	392
Plague.			
Africa—Cape Colony	Aug. 20-27	3	1
Africa—Tringa (German East Africa	Jan.-Mar.	47	41
Brazil—Bahia	Aug. 27-Sept. 3		6
Chile—Arica	Sept. 3	Verified. Present.	
Egypt—Achmun	Aug. 26-Sept. 2	1	1
Egypt—Alexandria	Aug. 26-Sept. 2	5	3
India—Bombay	Aug. 31-Sept. 6		51
India—Karachi	Aug. 28-Sept. 4	5	4
Peru—Callao	Aug. 27-Sept. 3	1	
Peru—Chiclayo	Aug. 27-Sept. 3	2	1
Peru—Eten	Aug. 27-Sept. 3	3	2
Peru—Lima	Aug. 20-Sept. 3	13	4
Peru—San Pedro	Aug. 27-Sept. 3	3	3
Turkey—Smyrna	Sept. 5-7	2	

Public Health and Marine Hospital Service:

List of Changes of Stations and Duties of Commissioned and Non-Commissioned Officers of the Public Health and Marine Hospital Service for the week ending September 28, 1904:

BAILHACHE, PRESTON H., Surgeon. Detailed as a member of a Revenue Cutter Service Retiring Board to be convened in New York city. September 22, 1904.

BERRY, T. D., Assistant Surgeon. Relieved from duty at Laredo, Texas, and directed to proceed to Stapleton, N. Y., and report to the Medical Officer in Command for duty and assignment to quarters. September 28, 1904.

BIERMAN, C. H., Pharmacist. To proceed to Tampa Bay Quarantine, Florida, and report to Medical Officer in Command for duty and assignment to quarters. September 21, 1904.

COLLINS, G. L., Assistant Surgeon. Granted leave of absence for four days from September 20, 1904, under paragraph 191 of the regulations.

FERGUSON, BISMARCK, Acting Assistant Surgeon. Granted leave of absence for twenty-one days from September 27th.

FRARY, T. C., Acting Assistant Surgeon. Granted leave of absence for thirty days from October 1st.

GOODMAN, F. S., Pharmacist. Granted leave of absence for sixteen days from October 5th.

GOLDSBOROUGH, B. W., Acting Assistant Surgeon. Granted leave of absence for one day, September 29th.

GRAY, R. H., Acting Assistant Surgeon. Granted leave of absence for seven days from October 2nd.

HALL, L. P., Pharmacist. To proceed to Norfolk, Va., for temporary duty. September 26, 1904.

HALLETT, E. B., Acting Assistant Surgeon. Granted leave of absence for three days from September 24th.

KERR, J. W., Passed Assistant Surgeon. Detailed as a member of a Revenue Cutter Service Retiring Board to be convened in New York city. September 22, 1904.

LIGHT, S. D. W., Acting Assistant Surgeon. Granted leave of absence for five days from October 9th.

McMAHON, R. L., Acting Assistant Surgeon. Granted leave of absence for thirty days from November 5th.

MARSH, W. H., Acting Assistant Surgeon. Granted leave of absence for thirteen days from October 7th.

RUCKER, W. C., Assistant Surgeon. Granted three days' extension of leave of absence from September 28th.

SMITH, F. C., Assistant Surgeon. Granted leave of absence for seven days from September 24, 1904, under paragraph 191 of the regulations.

STONER, G. W., Surgeon. Granted leave of absence for eight days from September 19, 1904, under paragraph 189 of the regulations.

VAUGHAN, G. T., Assistant Surgeon-General. Granted leave of absence for fourteen days from October 18th.

VON EZDORF, R. H., Passed Assistant Surgeon. Detailed to represent the Service at the meeting of the Association of Military Surgeons at St. Louis, Mo., October 10 to 15, 1904.

Board Convened.

Board convened to meet at Washington, D. C., September 29, 1904, for the physical examination of an officer of the Revenue Cutter Service. Detail for the board—Assistant Surgeon-General G. T. VAUGHAN, chairman; Assistant Surgeon A. J. McLAUGHLIN, recorder.

Resignation.

FRANK SIEDENBURG, Pharmacist of the third class, resigned, to take effect September 30, 1904.

For the seven days ending October 5, 1904:

BANKS, C. E., Surgeon. Granted extension of leave of absence for twelve days from September 27th.

BOGGESS, J. S., Assistant Surgeon. Granted leave of absence for fifteen days from October 16th.

COLLINS, G. L., Assistant Surgeon. Granted leave of absence for three days from September 30, 1904, under paragraph 191 of the regulations.

LAGRANGE, J. V., Pharmacist. Granted leave of absence for seven days from September 26, 1904, under paragraph 210 of the regulations.

LORD, C. E. D., Assistant Surgeon. Relieved from duty in connection with the exclusive examination of aliens at San Francisco, Cal., and directed to proceed to Ellis Island, New York, N. Y., and report to Surgeon G. W. Stoner for temporary duty. September 29, 1904.

McDONALD, JEANETTE, Medical Inspectress. Granted leave of absence for three days from September 25, 1904, under paragraph 210 of the regulations.

RICHARDSON, T. F., Passed Assistant Surgeon. To proceed to Eagle Pass, Texas, for special temporary duty. October 4, 1904.

RUCKER, W. C., Assistant Surgeon. Bureau letter of September 12th, granting Assistant Surgeon Rucker fourteen days' leave of absence from September 15th, amended so that said leave shall be effective September 16th; and Bureau telegram of September 26th, granting Assistant Surgeon Rucker three days' extension of leave of absence, revoked.

TROTTER, F. E., Passed Assistant Surgeon. Relieved from duty at Plague Laboratory, San Francisco, Cal., and temporarily assigned to exclusive duty in connection with the examination of aliens at San Francisco. September 29, 1904.

TUTTLE, JAY, Acting Assistant Surgeon. Granted leave of absence for four days from September 19th.

WINN, C. K., Acting Assistant Surgeon. Granted leave of absence for fourteen days from September 25th.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending October 8, 1904:

ASSERSON, F. A., Passed Assistant Surgeon. Commissioned a passed assistant surgeon, with rank of lieutenant, from May 4, 1904.

Balch, A. W., Passed Assistant Surgeon. Commissioned a passed assistant surgeon, with the rank of lieutenant, from June 22, 1904.

Carpenter, D. N., Surgeon. Ordered to the Naval Hospital, New York, N. Y.

Clifford, A. B., Assistant Surgeon. Appointed assistant surgeon, with the rank of lieutenant, junior grade, from September 27, 1904.

Dunn, H. A., Assistant Surgeon. Detached from the Naval Proving Ground, Indian Head, Md., and ordered to the Naval Hospital, Newport, R. I.

Iden, J. H., Passed Assistant Surgeon. Commissioned a passed assistant surgeon, with the rank of lieutenant, from May 4, 1904.

Judd, H. W., Acting Assistant Surgeon. Ordered to the Naval Proving Ground, Indian Head, Md.

Ledbetter, R. E., Passed Assistant Surgeon. Commissioned a passed assistant surgeon, with the rank of lieutenant, from October 19, 1903.

McDonell, W. N., Assistant Surgeon. Ordered to the Naval Museum of Hygiene and Medical School, Washington, D. C.

Orvis, R. T., Passed Assistant Surgeon. Detached from the Naval Hospital, New York, N. Y., and ordered to the *Chattanooga*.

Richardson, R. R., Passed Assistant Surgeon. Commissioned a passed assistant surgeon, with the rank of lieutenant, from May 18, 1904. Detached from the *Wabash* and ordered to the Navy Yard, Mare Island, Cal.

Seaman, W., Passed Assistant Surgeon. Commissioned a passed assistant surgeon, with the rank of lieutenant, from May 18, 1904.

Smith, H. W., Assistant Surgeon. Appointed an assistant surgeon, with the rank of lieutenant, junior grade, from September 27, 1904.

Steele, John M., Surgeon. Ordered to the Naval Station, Baltimore, Md.

Strite, C. E., Assistant Surgeon. Appointed an assistant surgeon, with the rank of lieutenant, junior grade, from September 27, 1904. Ordered to the Naval Museum of Hygiene and Medical School, Washington, D. C.

Sutton, R. L., Assistant Surgeon. Ordered to the Naval Hospital, New York, N. Y.

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending October 8, 1904:

Billingslea, C. C., First Lieutenant and Assistant Surgeon. Ordered to proceed not later than November 1, 1904, from the United States General Hospital to the Presidio of Monterey and accompany troops to Fort Riley, Kan., and report to the commanding officers of that post for duty.

Fuller, L. A., Captain and Assistant Surgeon. Granted twenty days' leave of absence.

Keller, W. L., First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Riley, Kan., and ordered to proceed to Fort Leavenworth, Kan., to accompany troops to the Presidio of San Francisco, Cal., and report to the Commanding General of the Department of California, for assignment to duty at the United States Army General Hospital, Presidio of San Francisco, Cal.

Smart, Charles, Colonel and Assistant Surgeon-General. Arrived at the Army and Navy General Hospital, Hot Springs, Ark., for treatment.

Smart, Robert, First Lieutenant and Assistant Surgeon. Relieved from duty in the Division of the Philippines, and ordered to accompany troops from the Presidio of San Francisco, Cal., to Jefferson Barracks, Mo. Upon completion of this duty will proceed to Fort Du Pont, Del., and report to the Commanding Officer of that post for duty.

Winter, F. A., Major and Surgeon. Granted leave of absence for twenty days from October 10, 1904.

Births, Marriages, and Deaths.

Born.

Billingslea.—In San Francisco, California, on Saturday, September 24th, to Dr. C. E. Billingslea, United States Army, and Mrs. Billingslea, a daughter.

Kirby-Smith.—In Iliolo, Philippine Island, on Friday, September 23rd, to Dr. and Mrs. Reynold Marvin Kirby-Smith, a son.

Married.

Bailey—Allen.—In Demopolis, Alabama, on Wednesday, September 14th, Dr. Edward Burke Bailey and Miss Melissa Allen.

Bennett—Pearson.—In Wilsonville, Nebraska, on Thursday, September 29th, Dr. Isaiah Bennett and Miss Grace S. Pearson.

De Witt—Foster.—In Fort Porter, New York, on Tuesday, September 27th, Dr. Wallace De Witt and Miss Bessie Scotten Foster.

Dodge—Dyche.—In Sabitha, Kansas, on Wednesday, September 28th, Dr. Horace Dodge and Miss Mellie A. Dyche.

Dowd—Dunne.—In Brooklyn, N. Y., on Tuesday, October 4th, Dr. J. Bertram Dowd and Miss Sadie Dunne.

Hartman—House.—In Medina, Ohio, on Wednesday, September 28th, Dr. George J. Hartman and Miss Fannie House.

Hodgson—Fassett.—In Elmira, N. Y., on Tuesday, October 4th, Dr. Frederick G. Hodgson and Miss Margaret Fassett.

McEnery—McLaughlin.—In Washington, D. C., on Wednesday, October 5th, Dr. William A. McEnery, of London, and Mrs. Henrietta M. McLaughlin.

Marsteller—Wallace.—In Wallaceton, Virginia, on Thursday, September 22nd, Dr. Ambler Marsteller and Miss Vera Wallace.

Smith—Scott.—In New York, on Monday, September 26th, Dr. Reginald Smith and Miss Neva Scott.

Died.

Axtelle.—In Waterbury, Connecticut, on Tuesday, September 27th, Dr. Thomas L. Axtelle, in the fifty-second year of his age.

Bemis.—In Worcester, Massachusetts, on Monday, October 3rd, Dr. Merrick Bemis, in the eighty-fifth year of his age.

Boulanger.—In Montreal, Canada, on Thursday, September 29th, Dr. Pierre Paul Boulanger, in the thirty-sixth year of his age.

Free.—In Stewartstown, Maryland, on Tuesday, September 27th, Dr. John Lowe Free, in the eighty-fourth year of his age.

Henry.—In Devon, Pennsylvania, on Monday, October 3rd, Dr. Joseph N. Henry.

Johnson.—In Louisville, Kentucky, on Tuesday, October 4th, Dr. J. Lively Johnson, in the forty-fifth year of his age.

Jones.—In Knoxville, Georgia, on Friday, September 30th, Dr. J. W. Jones, in the sixty-sixth year of his age.

McBride.—In Philadelphia, Pennsylvania, on Sunday, October 2nd, Dr. Isaac McBride, in the seventy-third year of his age.

Taylor.—In Washington, D. C., on Tuesday, September 27th, Dr. Leroy Taylor, in the sixty-seventh year of his age.

Thomas.—In Baltimore, Maryland, on Monday, October 3rd, Dr. Richard Henry Thomas, in the fifty-first year of his age.

Updegrove.—In Philadelphia, Pennsylvania, on Saturday, October 1st, Dr. Silas Updegrove, in the seventy-sixth year of his age.

Watson.—In Baltimore, Maryland, on Thursday, September 29th, Dr. Arthur G. Watson, in the fifty-fourth year of his age.

Wickham.—In Port Jervis, N. Y., on Saturday, October 2nd, Dr. David D. Wickham, in the seventy-fifth year of his age.

Williams.—In Jefferson City, Missouri, on Tuesday, September 27th, Dr. George H. Williams, in the forty-sixth year of his age.

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Original Communications.

THE ROENTGEN RAYS IN THE TREATMENT OF FRACTURES AND ADJUSTMENT OF THE FRAGMENTS UNDER THE EYE, BY USE OF THE FLUOROSCOPE.*

By HARRY L. GILCHRIST, M. D.,

FIRST LIEUTENANT AND ASSISTANT SURGEON, U. S. A.,
FORT SCREVEN, GA.

The advantage of using the x rays in the treatment as well as for the diagnosis of fractures has been practically demonstrated at this hospital. Although having but a limited number of cases with which to experiment the results thus far obtained by this method are certainly encouraging; and it seems worthy of attention in that it not only overcomes many of the recognized disadvantages of the old methods, but simplifies many of the newer ones.

Case I.—J. S., aged twenty-four years, private, Troop C, Seventh Cavalry, when taking part in an exhibition drill, or cossack race, was accidently thrown from his horse and under the body of the falling animal. A hasty examination made at the time showed that he was in a critical condition and his removal to a nearby hospital was ordered at once. There a thorough examination was made under the influence of an anæsthetic when it was found that, besides suffering from several bruises, he had sustained a dislocation of the right ankle and a fracture of the bones of the left leg, supposed to be a comminuted fracture, for which an early operation was advised. The man being a soldier, it was decided to remove him to the neighboring government hospital at Fort Screven and consequently the operation for the removal of supposed fragments of bone did not take place. He was received at this hospital on the afternoon of the third day following the accident and in fairly good condition. Examination showed the right leg encased in plaster of paris, the left one in a thin cotton dressing, and both limbs bound together and immobilized by a long posterior splint. He was brought here upon a hard mattress and cot and withstood the journey without any apparent injury. Without removing him from the cot he was carried to the x ray laboratory and an examination made of the limbs with the x rays, without disturbing the dressing. It was discovered that instead of there being a comminuted fracture it was a simple one in which the bones were overlapping about an inch (see radiograph). The true condition of the limbs being noted the patient was removed to the operating room, anæsthetized, and an attempt was made to set the limb by the usual methods, on account of the large amount of swelling present; this was very unsatisfactory. The operating room was then darkened, the coil machine moved therein, and the following method of setting the fracture by the aid of the Röntgen rays was adopted. The hard mattress, bearing the patient, was placed upon a long wooden topped radiographic table.

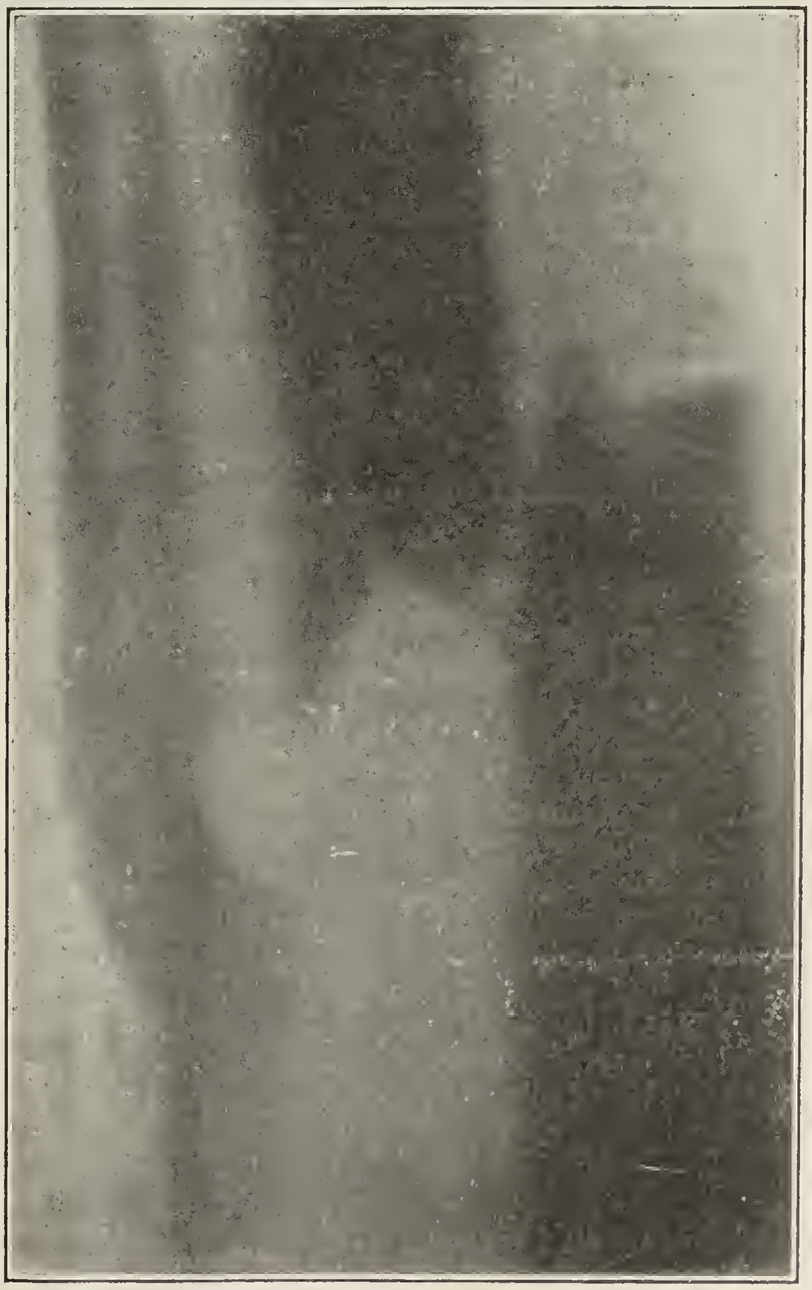

Fig. 1.—Radiograph showing simple fracture in Case I.

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* Read before the Chatham County (Georgia) Medical Society, December 21, 1903; published by permission of the Surgeon-General of the Army.

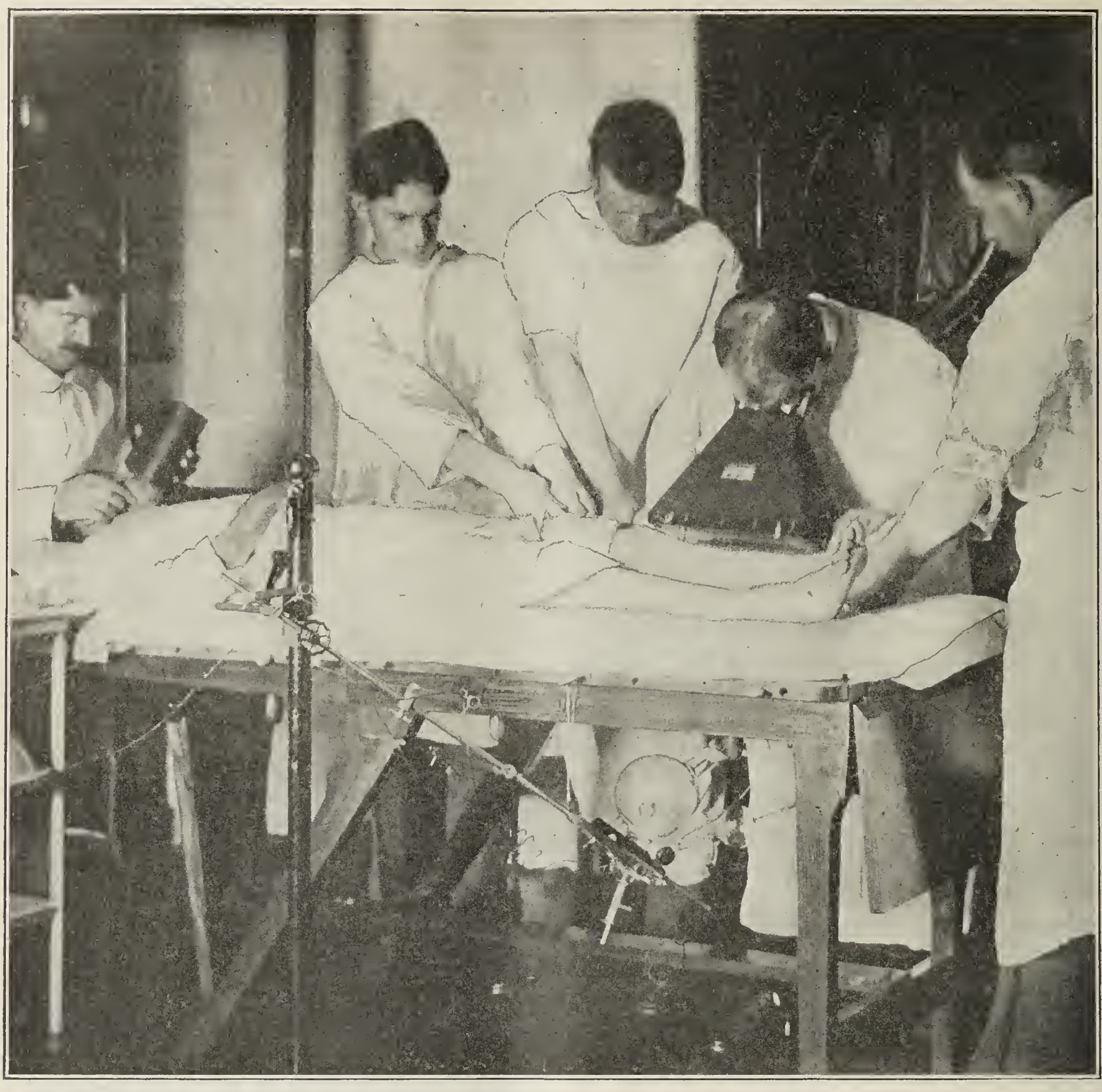

FIG. 2.—Adjusting simple fracture in Case I by aid of the fluoroscope.

The x ray tube, diaphragm up, was then adjusted immediately beneath the fractured limb allowing a space of about four inches between the surface of the table and that of the bulb. The tube was then energized and another fluoroscopic examination was made of the limb to see that everything was in working order. Arrangements were then made for the adjustment of the fractured ends by fastening a strong crash towel around the limb just beneath the knee and another above the ankle to allow for extension and counterextension. Everything being in readiness, and the assistants in their proper places, the tube was again energized and, by placing the fluoroscope over the injured part, the condition of the bones could be constantly seen. Directions were then given to the assistants as to the amount of extension to be made and, by this method, very little trouble was experienced in extending and bringing together the broken ends, notwithstanding the large amount of swelling present and the interval that had elapsed between the time of the accident and the time of setting. The bones being in good apposition from an anterior and posterior aspect the tube was then adjusted so that a lateral view could be obtained and, this being satisfactory, proper splints were applied to the limb to retain the fractured ends in position.

The practical value of this method, however, extended beyond the mere diagnosis and treatment of this case, for by periodical examinations with the rays, the condition of the bones was ascertained and the progress of the fracture was followed quite readily without disturbing the limb in the least, the splints and dressings being translucent to the rays. The man not only made a rapid recovery, but a perfect one, there being no apparent bad effects resulting from the injury, and he has been restored to duty.

CASE II.—M. M., aged thirty-eight years, colored, civilian laborer on the reservation, entered the hospital on the morning of August 23, 1903, complaining of a severe pain in the right forearm. He stated that, a few minutes before, while working upon a scaffold some eight or ten feet high, he lost his balance and fell headforemost to the ground, striking upon the right hand. A casual examination showed that he had sustained a fracture of the forearm and a more thorough examination made by the aid of the Röntgen rays showed that both bones of the forearm were fractured about three inches above the joint with considerable displacement of the fragments. The treatment of this case in the adjusting of the fractured ends was similar to the one already noted. A small wooden topped table was brought in and the patient was requested to rest the injured arm on this. The x ray tube, diaphragm up, was then placed immediately beneath the under surfaces of the table; the fluoroscope was then adjusted above the fracture (see Fig. 3) allowing sufficient space between it and the arm for manipulation. The tube was then illuminated and every movement of the fragments noted through the fluoroscope while the fractured ends were placed in apposition, which was accomplished with very little manipulation and without much pain to the patient. Proper splints were applied and a final examination was made, through these, to see that the bones were in good position. The patient was requested to report here daily for examination that the condition of the parts might be noted. He left the community a few days later and nothing was heard of him until recently, when it was learned that he was working with a section gang on one of the nearby railroads, experiencing no trouble whatsoever from the injured arm.

Case III.—C. E., aged twenty-two years, private, 116th Company, Coast Artillery, while scuffling with a companion, was thrown to the ground, striking his arm against the edge of an elevated sidewalk inflicting what appeared to be a painful bruise. Being a recruit he did not like to go on the sick report and performed his duties until four days after the accident, when he entered this hospital with the arm terribly swollen and very painful. An x ray examination showed an oblique fracture of the radius above the lower third with some overriding of the fragments. The method adopted in setting the fracture was the same as described in Case II., with similarly excellent results.

Case IV.—J. K., aged twenty-seven years, private, Fifth Company, Coast Artillery, while assisting in elevating a heavy projectile from a casement up to the gun, was accidently struck upon the back of the hand by the handle of a flying windlass, fracturing the middle metacarpal bone. The man came to the hospital shortly after the accident and the fracture was set by the same methods as described in Case II, with equally good results.

The apparatus necessary for this method of managing fractures is a complete x ray outfit, of either coil or static machine, and the usual accessories. An ordinary wooden topped table can be utilized for the patient, or one could be improvised by laying two pieces of pine lumber, 6 feet long, by 12 inches wide, and 1 inch thick, on a firm support about 18 inches high. The tube is placed on a stand underneath the table from 4 to 8 inches from the under surface of the board (see photograph).

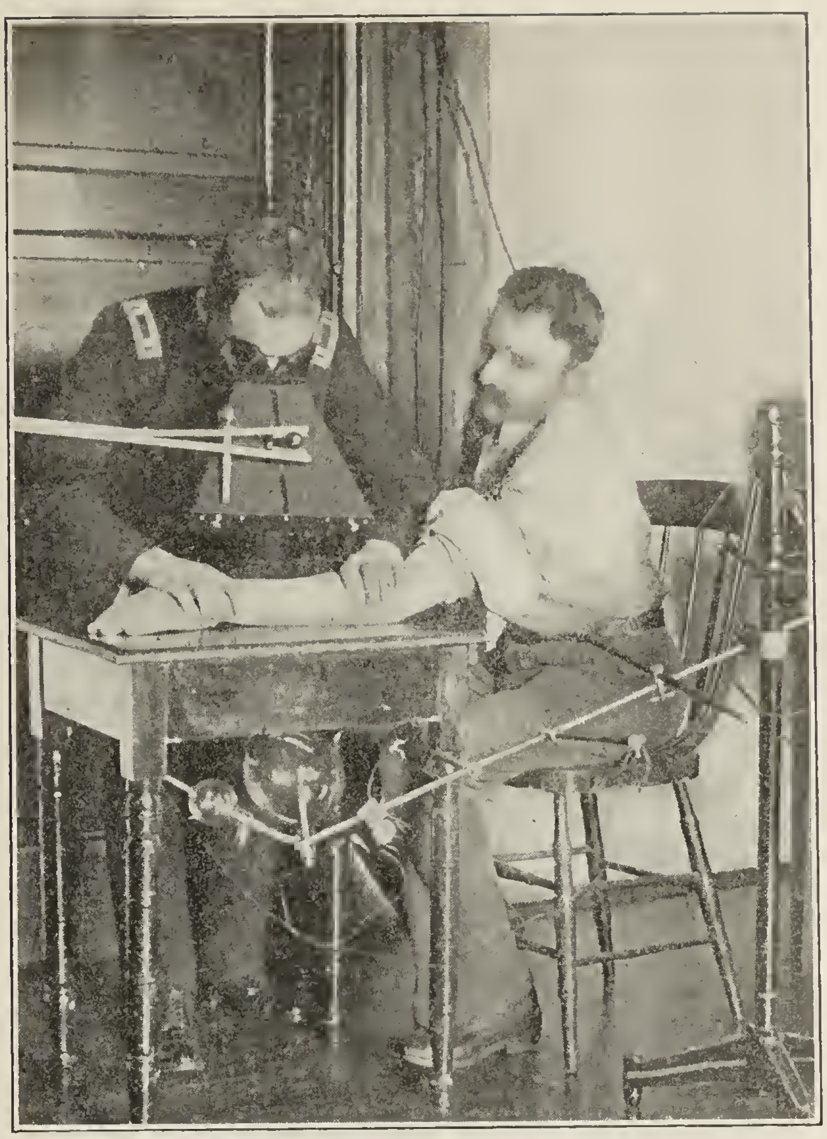

Fig. 3.—Adjusting bones in fracture of the arm, Cases II, III, and IV.

As the length of exposure for doing this work would not be long and, as the rays would have to penetrate the board and in some cases the mattress, the probability of producing a burn would be very slight, but, as an extra precaution, the table could be covered with a rubber blanket which would not obstruct the rays in the least.

Although this method of setting fractures has been tried in a limited number of cases, the results thus far obtained have been so gratifying that I would recommend its trial by others. The essential points in its favor are the ability to see every movement of the fractured extremities during their adjustment, thus avoiding the necessity of giving an anæsthetic for diagnostic purposes: saving the patient many painful manipulations and the tissues from bruising and laceration by unnecessary handling.

INACCURACY IN CLINICAL THERMOMETERS.*

BY CASWELL A. MAYO, PH. G.,

NEW YORK,

EDITOR OF THE *American Druggist*.

Having had an opportunity some months ago to observe the methods used in the manufacture of clinical thermometers, I was impressed by the importance of accuracy in these instruments. With a view of determining the reliability of the thermometers on the market, I purchased eleven lots of one half dozen each in six different cities. Each of these lots bore different marks, but all were of a grade sold by jobbers at $6.00 to $7.00 per dozen, and fairly represented the average grade of thermometers purchased by pharmacists for sale over the counter. All were provided with certificates purporting to be from the manufacturers. Having collected these thermometers, I submitted them to the United States Bureau of Standards for examination.

Where thermometers vary more than three tenths of a degree from the standard thermometers of the bureau, they are rejected. Thermometers are also rejected which fail to repeat within three twentieths of a degree in two readings at the same point. The results of the examination of this lot of 62 thermometers (the remainder being broken in transit) are shown in the tabulated statement attached to this paper. These results may be summarized as follows:

Lot A	2 out of 6 rejected.
Lot B	1 out of 6 rejected.
Lot C	5 out of 6 rejected.
Lot D	0 out of 5 rejected.
Lot E	1 out of 6 rejected.
Lot F	2 out of 6 rejected.
Lot G	1 out of 6 rejected.
Lot H	1 out of 6 rejected.
Lot I	3 out of 4 rejected.
Lot J	2 out of 5 rejected.
Lot K	0 out of 6 rejected.

This shows that 29 per cent. of the thermometers bought were not sufficiently accurate to meet the requirements of the Bureau of Standards. Only 11 per cent. of all the clinical thermometers examined by the bureau during last year were rejected. It would appear, therefore, that manufacturers exercise greater care with the thermometers which they submit to the Bureau of Standards for certificates than with those found on the open market.

REPORT OF UNITED STATES BUREAU OF STANDARDS ON 66 CLINICAL THERMOMETERS SUBMITTED BY CASWELL A. MAYO.

Nos.	Corrections at				Remarks.	Nos.	Corrections at				Remarks.
A.	96°	100°	104°	108°		B.	96°	100°	104°	108°	
1.	−0.3	−0.4	−0.4	−0.4	Reject.	1.	−0.2	−0.2	−0.2	0.0	
2.	0.0	0.0	0.0	0.0		2.	−0.2	−0.3	−0.3	0.3	Reject.
3.	−0.4	−0.4	0.5	0.4	Reject.	3.	−0.2	−0.2	−0.1	−0.1	
4.	−0.1	−0.2	−0.1	0.0		4.	−0.2	−0.3	−0.2	−0.2	
5.	−0.2	−0.2	−0.2	−0.1		5.	−0.1	0.0	−0.1	0.0	
6.	−0.3	−0.2	−0.2	−0.1		6.	(Broken when received.)				
C.						D.					
1.	0.0	−0.1	−0.1	−0.2		1.	−0.2	−0.1	0.0	0.0	
2.	−0.5	−0.4	−0.4	−0.4	Reject.	2.	−0.2	−0.1	0.1	−0.1	
3.	−0.5	−0.6	−0.6	−0.6	Reject.	3.	−0.1	−0.2	0.0	−0.2	
4.	−0.5	−0.6	−0.5	−0.5	Reject.	4.	−0.2	−0.1	−0.2	−0.1	
5.	−0.4	−0.4	−0.4	−0.4	Reject.	5.	−0.1	−0.1	−0.1	−0.1	
6.	−0.3	−0.1	−0.1	−0.4	Reject.	6.	−0.1	−0.1	(Broken.)		
E.						F.					
1.	−0.4	−0.3	−0.2	−0.2	Reject.	1.	−0.2	−0.2	−0.1	−0.1	
2.	0.0	0.0	0.0	0.1		2.	−0.3	−0.2	−0.2	0.0	
3	−0.1	−0.1	−0.2	−0.3		3.	−0.2	−0.2	−0.1	0.0	
4.	−0.2	−0.3	−0.2	−0.2		4.	−0.4	−0.2	0.1	0.0	Reject.
5.	−0.1	0.2	0.2	0.2		5.	−0.4	−0.3	−0.1	0.0	Reject.
6.	−0.3	−0.3	−0.3	−0.2		6.	−0.2	−0.2	−0.1	−0.2	
G.						H.					
1.	0.0	0.0	−0.1	−0.1		1.	−0.2	−0.2	−0.2	−0.1	
2.	−0.1	−0.2	−0.2	−0.2		2.	−0.1	−0.2	−0.3	−0.4	Reject.
3.	−0.1	−0.2	−0.2	−0.3	Reject.	3.	0.0	0.0	−0.1	−0.1	
4.	−0.2	−0.2	−0.2	−0.2		4.	0.0	−0.1	−0.1	−0.1	
5.	0.0	−0.1	−0.1	−0.2		5.	0.0	0.0	0.0	0.1	
6.	−0.2	−0.2	−0.2	−0.1		6.	−0.2	−0.1	0.0	0.0	
I.						J.					
1.	−0.3	−0.4	−0.4	−0.4	Reject.	1.	0.0	0.0	0.0	0.0	
2.	−0.2	−0.3	−0.3	−0.4	Reject.	2.	+0.1	+0.1	0.0	0.0	
3.	−0.4	−0.6	−0.6	−0.5	Reject.	3.	−0.2	−0.2	0.0	+0.1	
4.	0.0	−0.2	−0.1	0.0		4.	−0.4	−0.4	−0.3	−0.4	Reject.
5.	(Broken when received.)					5.	0.0	0.0	0.0	−0.3	Reject.
6.	(Broken when received.)					6.	(Broken when received.)				
K.						K.					
1.	0.0	0.0	0.0	0.0		4.	+0.1	+0.1	+0.1	+0.1	
2.	0.0	0.0	0.0	0.0		5.	+0.1	+0.1	0.0	0.0	
3.	+0.1	+0.1	+0.1	+0.1		6.	0.0	0.0	0.0	+0.1	

A careful analysis of the results of this investigation brings to light several interesting facts. In the first place, there are only about twelve manufacturers of clinical thermometers, and of these only about five really make their own thermometers. The others buy the ungraduated tubes, graduate them, put their own marks on them, and send them out as if they were of their own make. The majority of the thermometers sold are made by two or three manufacturers,

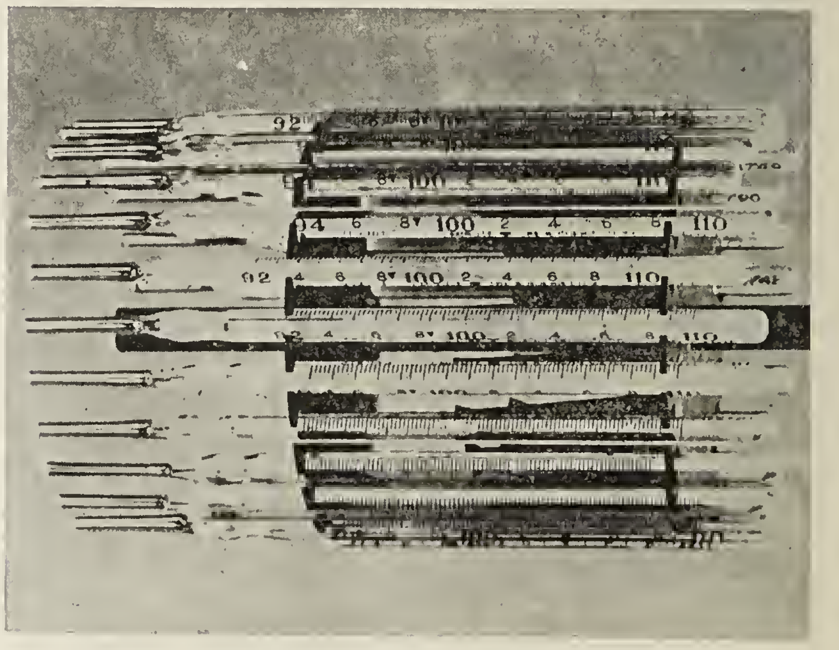

FIG. 1.—Holder loaded with 24 thermometers.

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* Read at the fifty-second annual meeting of the American Pharmaceutical Association, held in Kansas City, Mo., September 4 to 10, 1904.

who put on them any desired brand or mark, and in this way probably a thousand apparently different makes are found on the market. It is hardly necessary to state that where the real maker's name does not appear, the maker is apt to be careless. For instance, one of the lots examined, though bearing a small dealer's name, was made by one of the large makers whose certificates are usually to be relied upon, but of this lot, five out of six were rejected. There is one so called manufacturer who makes a practice of buying up the rejected "tubes," as the ungraduated thermometers are termed, graduating them, and selling them a little below the market price. It is hardly necessary to say that such thermometers are worse than useless.

The positive criminality of the manufacturers in selling clinical thermometers which are so misleading in their results must be apparent to any one who has observed the grave importance which attaches to the variations in temperature in many febrile diseases. The mere fact that the pharmacist is not in position to carry out the testing of thermometers in his own shop by no means acquits him of responsibility in the matter. He can have his thermometers tested by the government at a very slight expense.

HOW TO SECURE GOVERNMENT CERTIFICATES.

All that is necessary is to pack up a dozen thermometers carefully and express them, prepaid, to the United States Bureau of Standards, Washington, D. C., putting the name and address of the shipper on the package, and enclosing $2.00 in money or post office money order (checks not being accepted) to cover cost of certification. The thermometers will be tested and returned within ten days or two weeks, each being accompanied by a government certificate which will not only enable the pharmacist to learn the actual facts as to the accuracy of his thermometers, but will increase the market value of those which stand the test sufficiently to make the investment a profitable one. It has been suggested that the pharmacist should test his own thermometers by comparing them with what he believes to be accurate thermometers plunged into a teacup of water. The absurdity of this procedure becomes quickly apparent when one considers the various sources of possible error involved in such a rough and ready procedure.

AGING THERMOMETERS.

Experiments made by the Bureau of Standards have demonstrated that where ordinary domestic glass is used in making all parts of the thermometer the average increase in the reading at the end of two months is three tenths of a degree, and at the end of fourteen months sixty-eight one hundredths of a degree. The average change, however, in thermometers made with what is known as Jena normal glass or with French hard glass, at the end of two months amounts to only six one hundredths of a degree, and, at the end of fourteen months, eleven one hundredths of a degree, showing that with this glass one half the total observed change takes place during the first two months, and, as a matter of fact, the changes which occur after three or four months are practically negligible. These changes in the reading of thermometers are due to the fact that when glass is heated it expands quite rapidly to a volume corresponding to the temperature, but upon being cooled to the initial temperature it does not resume its original volume for some time, the length of time depending upon the character of the glass and the amount of change in temperature. The gradual contraction of the glass to its initial volume results in a diminution in the size of the bulb, and consequently the mercury is caused to rise higher in the tube and give a higher reading after the thermometer has stood for some time than when it is first completed. Since the volume of mercury contained in the stem is very minute, the change in the volume of the stem may be disregarded, and as a consequence it has become customary in the United States to make the stem of soft glass, using hard glass for the bulbs only. It occasionally happens also that in recovering from the stress caused by the great heat used in making the contraction of the bore

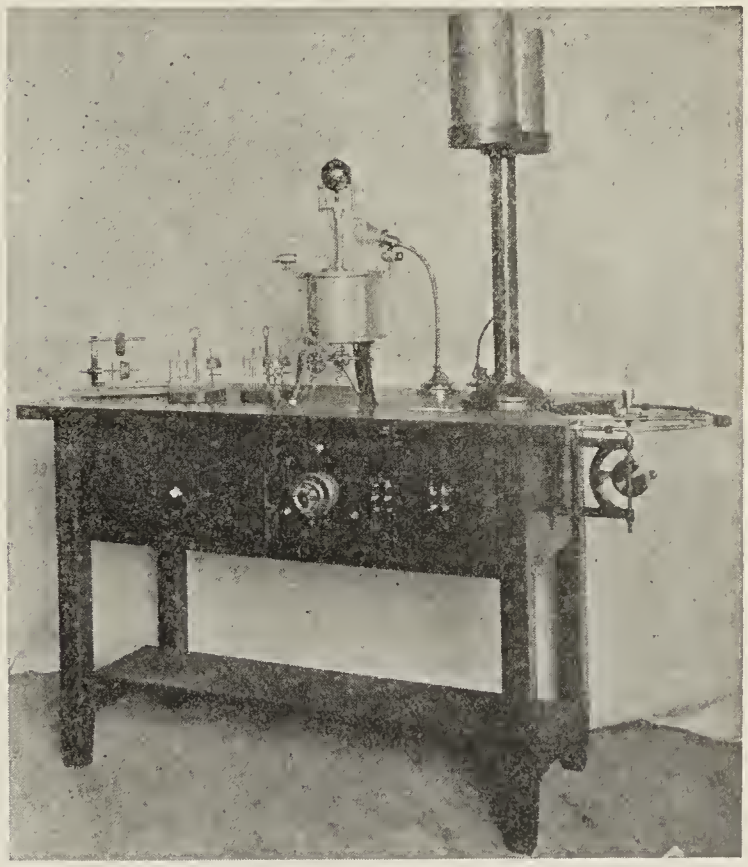


Fig. 2.—Complete set of apparatus for examining clinical thermometers.

which makes the thermometer self-registering, a small splinter of glass is thrown off in the tube. This is not apt to take place until some time after the thermometer is made, but, if it does occur, it, of course, vitiates the readings of the thermometer.

Taking all these facts into consideration, it will be seen that it is highly important to "age" thermometers before they are put into use, and this point is fully appreciated by careful makers, who always age their thermometers before graduating them.

THE EXAMINATION OF THERMOMETERS BY THE BUREAU OF STANDARDS.

The United States Bureau of Standards referred to is a bureau of the Department of Commerce and Labor, and is authorized to establish and to examine standards for the determination of electrical units and units of capacity, mass and length, and to standardize thermometers and scientific instruments generally. Up to the time that this bureau was established, in 1901, the standards of the Yale Observatory were generally accepted. It has been found, however, that the Yale standard thermometers are slightly at variance with what is known as the international hydrogen scale, based upon the researches of Chappuis carried out at the International Bureau of Weights and Measures. This scale is defined as follows in a resolution of the International Committee on Weights and Measures, adopted October 15, 1887:

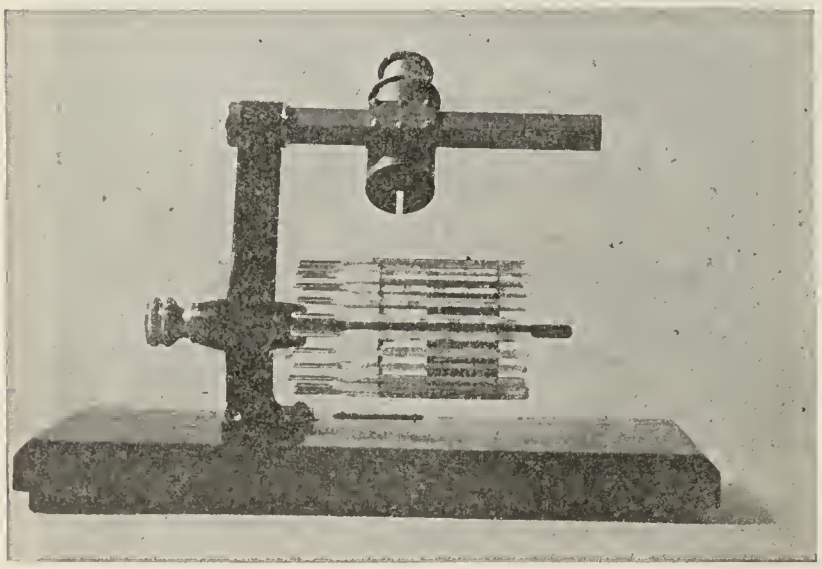


FIG. 3.—Holder in observation stand, with micrometer eyepiece.

> The International Committee on Weights and Measures adopts as the standard thermometric scale for the International Service of Weights and Measures the centigrade scale of the hydrogen thermometer, having as fixed points the temperature of melting ice (0 degrees) and of the vapor of distilled water boiling at standard atmospheric pressure (100 degrees); the hydrogen being taken at an initial manometric pressure of 1 metre of mercury; that is to say, $^{1000}/_{760} = 1.358$ times the standard atmospheric pressure.
>
> On this scale of temperature, therefore, one degree is measured by $^{1}/_{100}$ of the change of the pressure between the two fixed points, of a confined mass of hydrogen gas whose volume is kept constant and whose initial pressure (at 0° C.) is equivalent to 1 metre of mercury (at 0° C., and at sea level, latitude 45 degrees).

It is hardly necessary to say that this scale is not capable of immediate application in the testing of clinical thermometers and, for that reason, clinical standard thermometers have been so constructed by the Bureau of Standards that when used in the water bath for testing, the stems project above the surface only about two and a half inches, and hence the variation of the temperature in the room may be neglected. The corrections for these clinical standards are carefully determined by comparing them with the primary standards of the bureau.

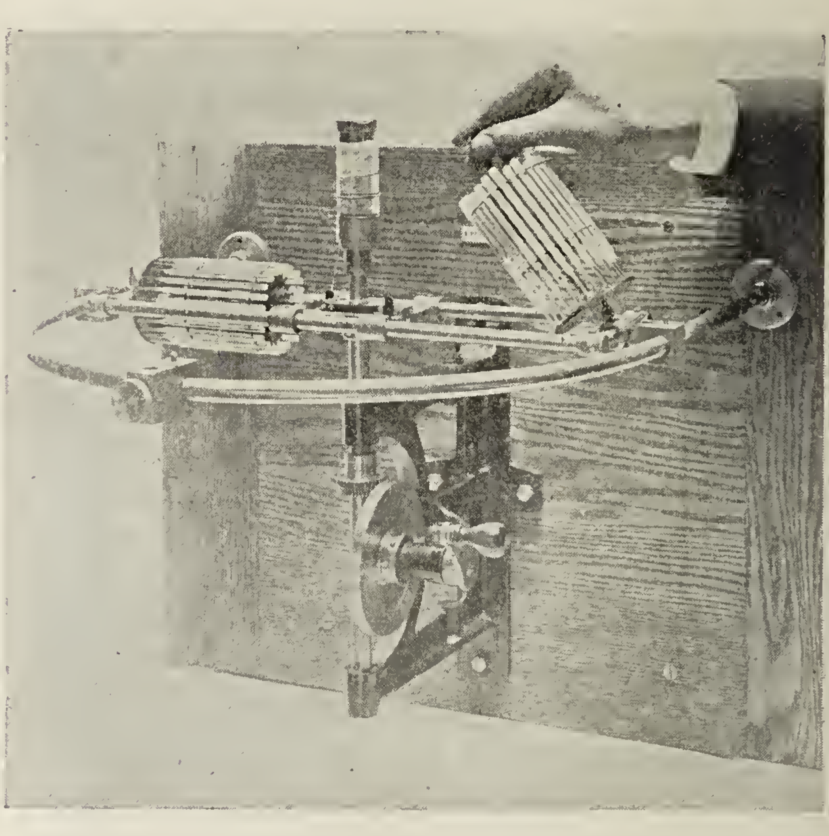
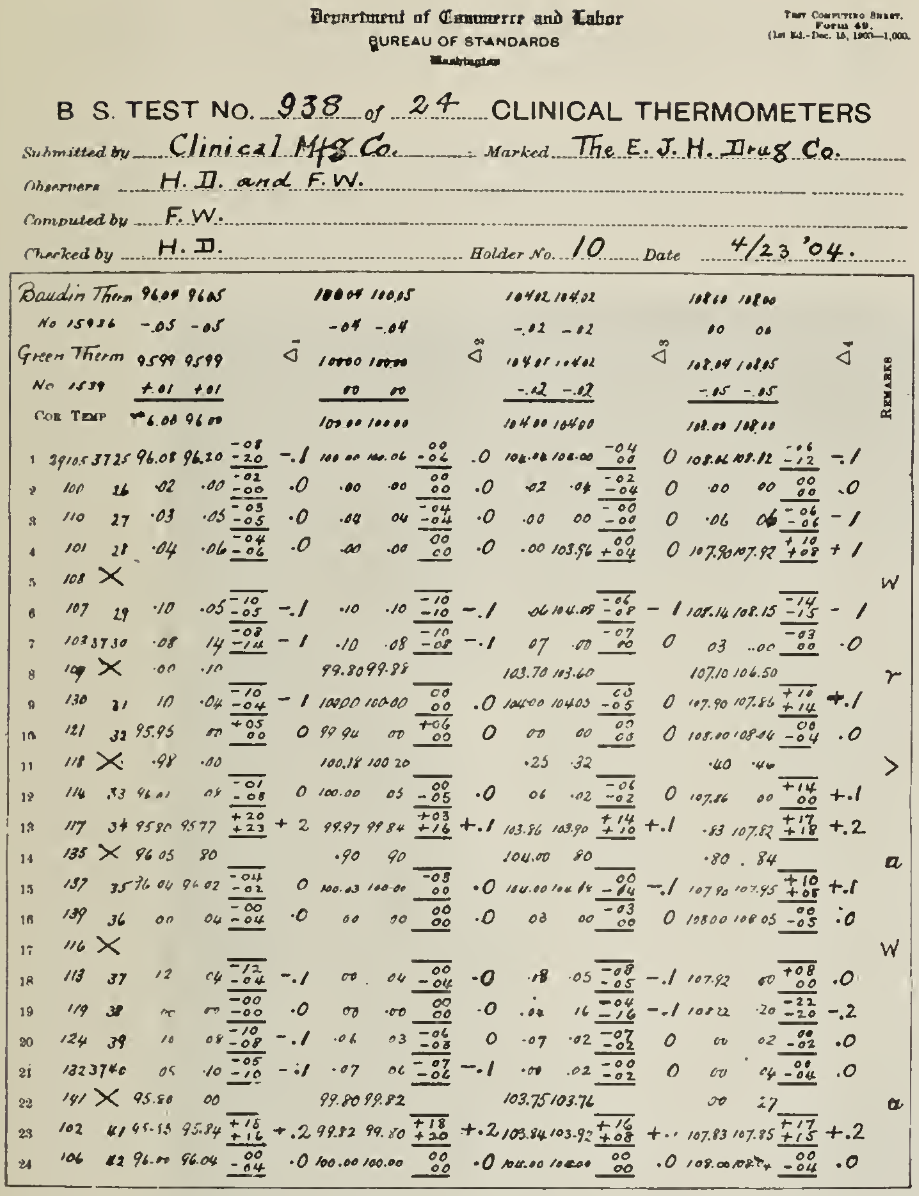


FIG. 4.—Centrifugal machine for throwing back the index.

DETAILS OF THE METHODS.

The routine pursued by the bureau in carrying on the work of standardization of clinical thermometers may be outlined briefly as follows: On each of the thermometers there is engraved a mark of identification for the use of the bureau. The thermometer is then examined for defects of construction, such as the presence of air bubbles, air, or moisture, in the mercury or in the bore, cracks in the glass, and defective graduations.

If this test is satisfactory, the thermometer is then compared with the standard thermometers of the bureau at the four test points, 96, 100, 104, and 108 degrees, two independent comparisons



Department of Commerce and Labor
BUREAU OF STANDARDS
Washington

Test Computing Sheet.
Form 49.
(1st Ed.-Dec. 15, 1903—1,000.

B S. TEST No. 938 of 24 CLINICAL THERMOMETERS

Submitted by Clinical Mfg Co. Marked The E. J. H. Drug Co.

Observers H. D. and F. W.

Computed by F. W.

Checked by H. D. Holder No. 10 Date 4/23 '04.

FIG. 5.—Specimen test record sheet as furnished by the United States Bureau of Standards.

being made at each point. If the two tests at any point differ by more than 0.15 degree F., or if the mean of the two tests gives a correction in excess of 0.3 degree F., the thermometer is rejected. Furthermore, errors in the intervals between test points must not exceed 0.3 degree F. For example, if the correction at 96 degrees is + 0.3 degree and at 100 degrees — 0.1, the error in the interval would be 0.4 degree F. and the thermometer would be rejected.

Twenty-four thermometers are mounted in one of the small holders shown in Fig. 1. The loaded holder is placed in a tank of water heated to a temperature of 96 degrees. The tank used by the Bureau of Standards is quite intricate in construction, is heated by an electrical coil, and is so designed as to insure the retention of the water at any temperature that is desired. This tank appears in the centre of the table in Fig. 2, which shows a complete set of the apparatus used for testing clinical thermometers in the Bureau of Standards. This table, by the way, forms a portion of the exhibit of the Bureau of Standards in the Government Building at the St. Louis Exposition. The holder is then taken out and placed on the stand shown in Fig. 3, to which is affixed a micrometer eyepiece. Reading through this eyepiece, the location of the index is very accurately and rapidly noted, an assistant taking down the figures called out by the observer.

The loaded holder is then placed in the centrifugal machine, or whirling device, which is shown in Fig. 4. By a series of experiments, the bureau has determined the rate of speed at which this apparatus should be turned in order to equal the average force exerted in shaking down or resetting the index of the thermometers, and if the index fails to return when the machine is turned at the indicated speed, showing that the index is too difficult to shake down, the thermometers are rejected.

The holder is again placed in the water bath and a reading taken at 100 degrees, the results are noted, the index is shaken down by means of the whirling device, and observations are made at 104 degrees and finally at 108 degrees. This process is repeated so as to give two readings for each thermometer at the same temperature. A careful comparison of these readings enables the operator to formulate a certificate for such of the thermometers as are acceptable and to determine which should be rejected. The results of these examinations are furnished to the maker or dealer who submits the thermometers, in a tabulated form, so that they can always be referred to when necessary. A reduced facsimile of such a tabulated statement is presented in Fig. 5.

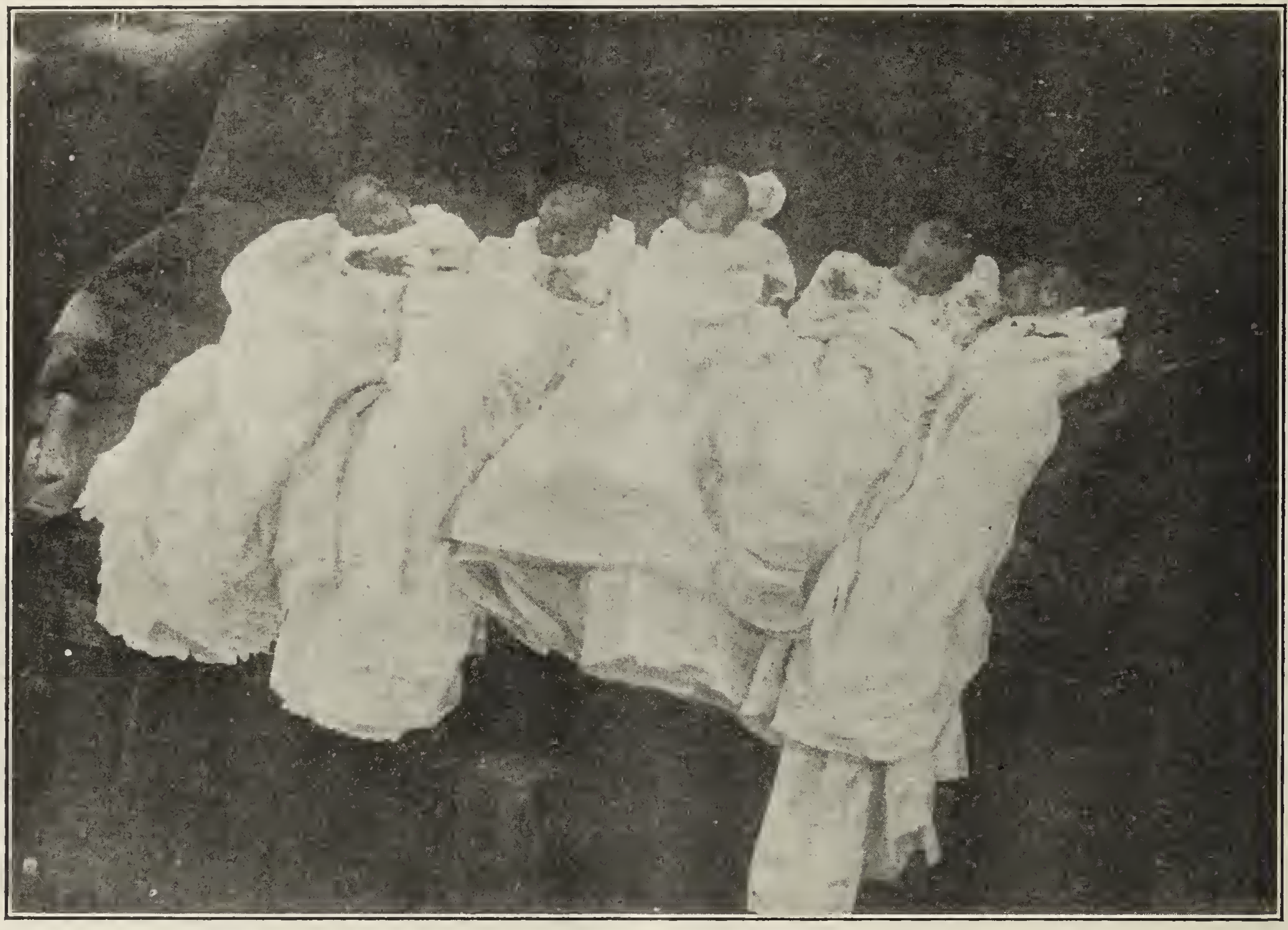
For much of the information contained in the foregoing note, and for the illustrations, I am indebted to Mr. S. W. Stratton, chief of the Bureau of Standards, who has kindly permitted me free use of advance sheets of a monograph describing the work of the bureau, written by L. A. Fischer and C. W. Waidner. I am also indebted to several of the manufacturers of clinical thermometers who are interested in the elevation of the character of the thermometers on the market.

Since I have said so much in criticism of the commercial thermometers, it is but justice to the manufacturers to state that some of them have displayed the keenest interest in my work and have given me every assistance and encouragement in my effort to bring about a betterment in the character of the clinical thermometers of the market. The need of greater care in the purchase of clinical thermometers having been pointed out to pharmacists and physicians, it is to be hoped that an improvement will take place in the character of these goods as generally found in the market.

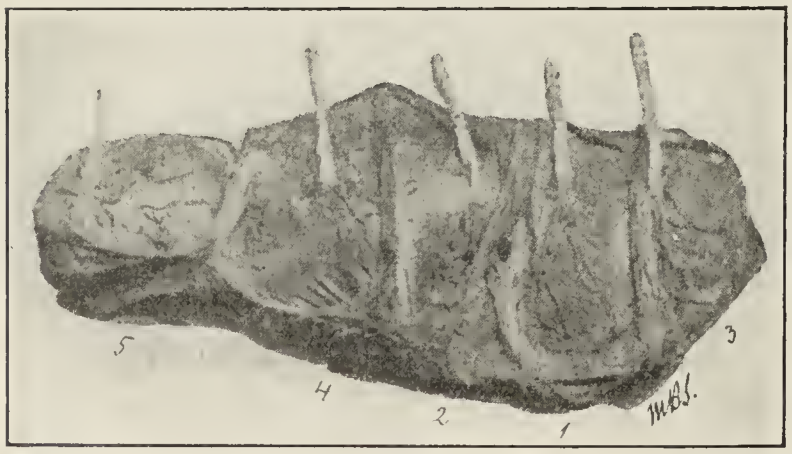
QUINTUPLETS.*

By ALBERT BERNHEIM, M. D.,

PHILADELPHIA, PA.



Quintuplets (boys), born at Mayfield, Ky., April 29, 1896.



Placenta of quintuplets, membranes open.

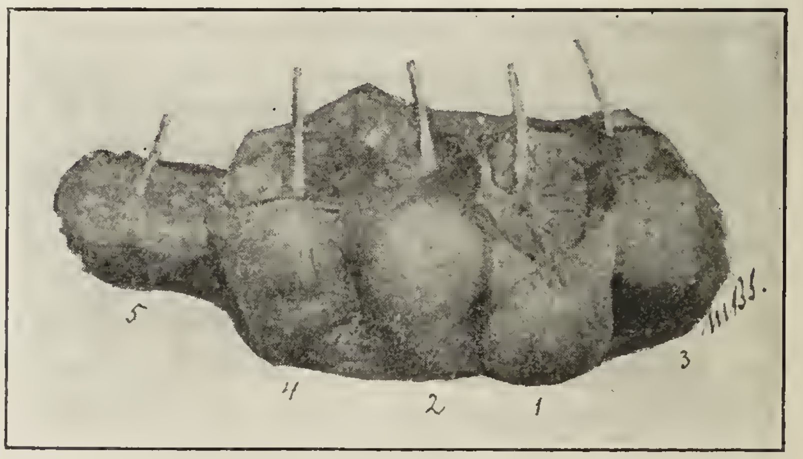
Newspapers not infrequently report strange and wonderful occurrences; sometimes a mother gives birth to a child in her sixtieth or seventieth year of age, or rather youth; another time it is some rare multiple birth. If you follow up the matter as I have done in several instances and write to physicians, living in the neighborhood of the supposed wonderful happenings, you will be notified that the news item originated either in a jocose remark or perhaps in the imagination of the news gatherer. In at least three cases where I made inquiries, the reports were not true.

Reports of similar kind in the medical periodicals are very rare, undoubtedly because they cannot be verified; the more so, is it worth while to put such rare cases on record when they happen.

According to statistics based upon thirteen million cases of births in Prussia, G. Veit[1] gives the following ratios in multiple births:

Twins	1 : 89
Triplets	1 : 7910
Quadruplets	1 : 371,126

"Quintuplets are far rarer, no authentic report of more than five children at one and the



Placenta of quintuplets, membranes closed.

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* Reported at the meeting of the Northern Association of Philadelphia, and at the meeting of the Northern Branch of the Philadelphia County Medical Society.

[1] Karl Schroeder's Lehrbuch der Geburtshilfe, p. 81.

same birth being known." Lusk[2] reports one case of quintuplets; so does Volkmann,[3] of Düsseldorf, Germany.

Aristotle long ago stated that more than quintuplets at one birth do not occur. A case of sextuplets, reported by F. B. Osiander, was denied in the second edition of his book, edited by his son, J. F. Osiander. The case in question was that of a woman in Silesia, who, for purposes of deception, had collected six of her miscarried fœtuses and had stated that she had borne the six fœtuses at one and the same time.

As a contribution to the literature of this rare occurrence, I will add the following case of the birth of quintuplets. The history of the birth and a short biography (!) of the quintuplets is as follows:

O. D. L., father of the quintuplets, was born in Logan County, Kentucky, in 1849. The mother, E. C. L., was born in 1857, in Warren County, Kentucky. They were married in 1874 and removed to Graves County, Kentucky, in 1888.

From 1875 to 1893 seven children were born; at the time of the birth of the quintuplets the oldest of the children was over 20 years of age, the youngest 2½ years old. All the children are living, with the exception of the second youngest.

On the 29th day of April, 1896, the late Dr. S. J. Mathews, of Mayfield, Ky., was called to attend Mrs. L., and he delivered her of five living boys within one hour. As Dr. Mathews told me personally, the individual children followed one another at intervals of ten or twelve minutes. The weights of the children (in order of the birth) were 4, 4¼, 4¼, 4¼, and 5 pounds.

Birth occurred in the eighth month of pregnancy. The children were apparently healthy and well developed. Dr. Mathews could not give any reason why the children died, unless it was the fact that after their baptism on May 3rd, they were, while being taken into the yard to be photographed (Fig. 1), exposed to the cold air.

The first of the quintuplets died May 4, 1896, at 3.20 p. m., having lived 4 days, 17 hours, and 20 minutes.

The second followed May 11th, at 6.30 a. m., aged 11 days, 8 hours, and 30 minutes.

The third died May 12th, at 11.30 p. m., aged 13 days and 2 hours.

The fourth died May 13th, at 2.30 p. m., aged 13 days, 18 hours, and 30 minutes.

The fifth died May 14th, at 12.30 p. m., aged 14 days, 2 hours, and 30 minutes.

The bodies were embalmed and are kept in a glass case.

The afterbirth consisted of five placentæ, grown together, and each has, as Fig. 2 shows, a separate umbilical cord. The mass of these five placentæ, the weight of which in their fresh condition I could not find out, is also preserved.

The third figure shows the children within the fœtal membranes. The births of the individual children followed, according to Dr. Mathews's personal statement, in the order shown from 1 to 5.

The mother is rather a small woman; she is 5 feet 1 inch in height, and her usual weight is 112 pounds. In the final three months of this last pregnancy she was almost helpless, and after the delivery she recovered very slowly.

Referring to the case mentioned above, Dr. Volkmann tells of a memorial tablet, showing Christ on the cross, beneath a kneeling couple and seven dolls representing seven babies, and an inscription (a translation of which is given below), having been found on a house in Hameln in Germany:

> Here lived a burgher, Thiele Roemer, famed,
> Also his wife, Anna Breyers named.
> Now when had come the sixteenth hundredth year
> January ninth, at three o'clock, or near,
> To them were born two boys and maidens five
> At one and the same time, and all alive.
> All were baptized by the holy rite,
> But only for ten days kept up life's fight.
> To all may God have granted His salvation
> Which, for the faithful, is in preparation.

1431 North Sixteenth Street.

◆

Remarks on the Ætiology and Treatment of Diabetes Mellitus.—Futcher, in the *Maryland Medical Journal*, for September, 1904, gives the following as the views which are now entertained concerning this disease: It is held to be due to some primary blood change by which the red cells are made more vulnerable, permitting them to distintegrate more readily and to give up their hæmoglobin. This blood pigment is deposited mainly in the gland cells of the liver and pancreas, as well as elsewhere in the body, leading, in a certain percentage of cases, to definite bronzing of the skin. As a result of the local deposition of the pigment in the liver and pancreas, a chronic interstitial inflammation of these organs is produced, which leads in the case of the liver to a hypertrophic pigmentary cirrhosis, and in the case of the pancreas to an interstitial pancreatitis of a pigmentary type. In the early stages, or early years of this affection, sugar does not appear in the urine, and it is only when the changes in the pancreas become so advanced that the islands of Langerhans are largely or completely destroyed, that glycosuria and diabetes develop.

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[2] Lusk, Science and Art of Midwifery, p. 228.

[3] Volkmann, *Centralblatt für Gynäkologie*, 1879, No. 17.

Other cases of quintuplets have been reported by Krebs, *Monatsschrift für Geburtshilfe*, vol. 3, p. 236; Spiegelberg, *ibidem*, vol. 7, p. 463; Fleischer, *ibid.*, vol. 9, p. 149; Galopin, *ibid.*, vol. 31, p. 475, and Sproule, *Cannstatt-Virchow's Bericht* for 1867, vol. 2, p. 579.

SYPHILIS CONTINUOUSLY TREATED BY INTRAMUSCULAR INJECTIONS OF MERCURY SALICYLATE.*

By D. A. SINCLAIR, M. D.,

NEW YORK,

LECTURER IN GENITOURINARY DISEASES AT THE NEW YORK POLYCLINIC MEDICAL SCHOOL AND HOSPITAL.

Intramuscular injections of salicylate of mercury, as a continuous method of treating syphilis, is the subject which I wish to bring before you this evening. In advocating this particular drug and its method of administration I have not lost sight of the fact that the other well known methods, namely, inunctions, internal medications, per ora. and fumigations, have their places, and that all are of undoubted excellence; but, after all is considered for and against all of the methods enumerated, I have personally arrived at the conclusion that the hypodermic or intramuscular method is the most satisfactory and can be used with more gratifying results in a larger majority of cases than any of the other methods mentioned, and, briefly, for the following reasons:

Inunctions: While this method of treatment is efficacious, I, personally, have been unable to induce patients to follow the treatment for more than a few weeks or a month on account of the difficulty and the filthiness in its application, and of its compromising character. In order faithfully to follow the rules laid down by its ardent advocates. all parts of the body must be systematically gone over. The back is the one part of the anatomy which obviously is rubbed with difficulty, and patients usually have to call on some friend to do this particular treatment for them. This is not always a desirable or an easy thing to have done, and, if the patients go to professional masseurs, in the language of one of our most respected syphilographers, "the masseur absorbs the patient while the patient absorbs the mercury," and so, of necessity, I have given up this particular method of treatment.

The internal administration of mercury is, I believe, the most common method of administering mercury, and the preparation most frequently used is the protoiodide in tablet form. This method is, in my opinion, less efficacious than treatment by inunctions, and has its disadvantages. To begin with, it is slow of action and unscientific, as we never know exactly how much of the drug is absorbed. It is impossible for many patients to take a dose large enough to control in a complete manner their syphilitic lesions because of gastrointestinal disturbances; and I believe it is a prolific source of tempting the patient after a short time to treat himself, thereby placing him out of the reach of his medical advisor, with the usual results that he almost invariably ceases treatment altogether, and in later years discovers that he still has syphilis.

Fumigations I will pass with a word or two. From what I have read, they are said to be very efficacious, but seldom used, except in desperate cases. I have never had occasion to resort to them, depending on and always succeeding with the intramuscular injections of the salicylate of mercury in getting complete control of any syphilitic manifestations.

Injections, intramuscularly, of salicylate of mercury possess many advantages over the other methods mentioned. They are more scientific and accurate, in that we know how many grains we give at each injection, as if it were morphine, strychnine, or any other of the familiar drugs. The gastrointestinal tract and the skin are relieved of the irritation often involved in these avenues of medication. They are quick and sure in action, the symptoms disappearing with wonderful rapidity. They are applicable in all three stages of the disease, non-compromising, easy in administration, cheap to the patient and doctor. They enable us to control the patient in a most complete manner; they do not produce abscesses; and have to be administered but once a week, due to their insoluble properties and slow absorption, which enables us to use a larger amount at a given dose than we could use of the soluble salts of mercury.

The use of intramuscular mercurial injections is admitted by nearly all observers to be a very potent method of treating syphilis, but it is usually spoken of as a method of reserve or of utility in treating desperate or refractory cases, which do not yield readily to other forms of treatment. I should like to know why this method, which is admitted to be so efficient in stubborn cases, should not be used as a routine form of treatment. As far as I can see, the reasons for the non-adoption of intramuscular injections are not well founded. In the salicylate of mercury we have a salt, insoluble in character, which needs to be injected but once in seven days, and which does not produce abscesses. If the physician will take the time and pains to explain the advantages of this method to his patients, I feel sure he will be better able to hold them; and I can positively say that I never lost a patient on whom I used this treatment, whom I could have held had I employed inunctions or internal medication instead; for I make it a point to tell my patients the advantages and disadvantages of each form of procedure, giving them their choice, but strongly advising the injections, and tell them, if they feel that the injections are too severe, I will put them on one of the other treatments. The result is that I succeed almost without exception in keeping up the injections, because the patients are amazed and pleased at the visible improvements which take place after a few treatments are given, and, in case they have to go away, when they cannot take the injections, and are put on inunctions or pills, they always prefer to go back to the injections; and hence I feel justified in saying that the inunction, fumigation, and internal administration of mercury are methods to be held in reserve for the patients who cannot or will not be injected.

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* Read at the Celtic Medical Society, Academy of Medicine, New York, May 26, 1904.

Relapses, though extremely rare, I have seen, even when the injections were given weekly, and I now believe they were due to one cause only, viz., to the smallness of the dose. I have given over six hundred injections and here report the disadvantages.

Disadvantages of injections: In five instances in my experience, I have noted a series of phenomena following immediately after the injection, within, I should say, twenty seconds. The patients started with a short, dry cough, similar to that produced by the inhalation of some irritating fumes. This was accompanied by a slight tightness in the chest, bordering on pain, and a very slight faint feeling; a hunger for air, so to speak, a feeling of nausea, without vomiting. In one case, lasting for twenty-four hours, the patient said that he spat up blood streaked sputum. The phenomena in the four other cases passed away in from fifteen minutes to one hour. There was nothing alarming to me in these phenomena; I think that they were due to a globule of oil or a small bubble of air being carried by the circulation into the capillaries of the lung, and I have repeatedly injected these same patients, without finding a single bad result remaining. I feel that it is absolutely important to call attention to these observations. We are also liable to observe a general feeling of malaise, with loss of appetite, coming on in twelve hours, and lasting about twenty-four hours. This is more noticeable especially after the first two or three injections. In a few instances I have observed a slight rise of temperature; 99.5° to 100° F.

The local phenomena, immediately following the injection, are in nearly every case nil, although rarely we may have a slight pain, due to the introduction of the needle; but whether present, slightly or not at all, in a small number of cases there is apt to follow, in from six to twenty-four hours, a slight lameness, with dull pain, more or less severe, at the site of injection. This may be accompanied by an itching or burning subcutaneous nodule. Now, the former condition, which is by no means frequent, and mostly noticeable after the first few injections, is generally ephemeral in its course, but the subcutaneous nodules, which vary in size from a hazelnut to a walnut, may remain from a few days to a few weeks, never suppurating, and invariably disappearing completely. When these nodules cause the patient any pain, I advise him to apply hot cloths and to use gentle massage. The mouth and gastrointestinal tract I have never seen affected from the injection of salicylate of mercury in a dose of one grain and a half, but I have on several occasions produced a mild mercurial stomatitis and diarrhœa, the latter consisting of about eight passages in the twenty-four hours. This, however, was due to my desire to get in a telling blow by administering an amount of mercury larger than I here give as the regular weekly dose. However, these phenomena never were serious enough or lasted long enough to cause the slightest alarm.

The preparation known as salicylate of mercury was first used in 1887 by Sylva Aranjo. It is a fine, white powder, insoluble in water, the dose being internally from one quarter to one half grain, and, as an injection in ordinary cases, one grain and a half. In selected, severe cases, I have injected six grains without any but the most gratifying results. The drug, when used, should be suspended in a heavy liquid. The formula I use was first introduced by Dr. Keyes and Dr. Chetwood ten years ago, and is most satisfactory. It is put up in drachm vials, each containing one grain and three quarters of the salicylate and about thirty minims of the liquid benzoinal, so as to insure cleanliness and accuracy of dosage. The amount remaining in the phial, after it is poured into the syringe, and the small amount which sticks to the syringe, equals about one quarter of a grain of the mercury, so we really inject one grain and a half. When this combination is shaken, the mercury will remain suspended for several minutes.

The technique which I follow, and the apparatus for carrying it out in detail, are very simple. An alcohol lamp, a sixty minim subcutaneous syringe; a needle of large calibre, which should have a high polish, a sharp point, and be about No. 19 gauge, and an inch and a half long; cotton; ether or alcohol; and collodion are necessary. The site most favorable for the injection is the gluteal region, but this may be changed to the calf of the leg or the muscles of the back and chest. The part selected for the injection is bared and cleaned with a piece of cotton, moistened with alcohol or ether, and the patient holds the cotton used over the spot until we are ready to inject, the object of this being twofold: first, it keeps the clothes from contaminating the spot cleaned; and, secondly, it acts as a guide to the site of injection.

The needle of the subcutaneous syringe should be thoroughly sterilized, preferably by boiling or holding it in the flame of the alcohol lamp until it is of a dull red heat. We now heat moderately the phial containing the mercury, shaking it with some vigor. The piston is withdrawn and the contents of the phial are poured into the syringe, the piston is returned and the air thus displaced. The syringe is held vertical for about a minute to let the air bubbles rise to the base of the piston. Then, by a straight quick thrust, the needle is buried in the muscular tissue, care being taken, especially in thin subjects, not to invade the periosteum, the contents of the syringe are injected slowly and the needle is quickly withdrawn. A dry piece of cotton is placed over the injected site, and a slight, gentle massage kept up for about a minute, when the puncture is sealed with collodion and cotton. This whole technique can be gone through in four or five minutes, and should be repeated weekly.

Adjuvants.—The mucous membrane of the oral cavity in many cases needs adjuvant treatment, the appearance of mucous patches on the tongue, palate, and tonsils being more persistent than the skin lesions. I find that two drugs are all that are necessary effectually to check this condition and allow the mercurial medication to finally control and prevent their reappearance. These drugs are the acid nitrate of mercury and silver nitrate, a fifteen per cent. solution, the former stronger and more potent than the later. Either is applied with a cotton swab, and a mouth wash is given, consisting of alum and chlorate of potassium, one half teaspoonful of each to a cupful of water. I should like to mention in this connection, and to advocate, the use of wooden tongue depressors, which are very cheap. By their use we do not expose to the danger of infection innocent patients, for, when once used, they may be cast aside.

In reference to any methodical course as to intervals between treatments, I have found that impossible, not only with the intramuscular injections, but with other forms of treatment, because of the patients' themselves taking that matter into their own hands. I tell them, therefore, that they must have weekly treatments for a period of three years, feeling sure at the same time that they will, after a while, regulate the time between the treatments.

226 EAST SIXTY-SECOND STREET.

VULVOVAGINITIS IN LITTLE GIRLS. A CLINICAL STUDY OF 190 CASES.

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(*Continued from page 741.*)

COMPLICATIONS: While it was formerly thought that the gonococcus only penetrated the surface epithelium of the mucosa, it has been later proved that it also invades the subepithelial and submucous connective tissue, and may provoke there inflammatory processes; it also has been found in the blood. The complications encountered in gonorrhœa are caused by the gonococcus itself, or they may be due to mixed infections; or they may result from the absorption of the toxines of the specific organisms. One of the most disastrous complications is the ophthalmoblennorrhœa; contracted through conveyance of purulent discharge from the vagina to the eye on the fingers; or through entrance into the conjunctival sac of pus adherent to bedlinen, sponges, etc. One of the first to direct attention to this complication was Arlt, who, in 1881, reported acute conjunctival blennorrhœa in 10 little girls from two to six years, suffering from vaginal discharge. Hirschberg published, in 1884, 6 cases of grave ophthalmoblennorrhœa caused by infection with the discharges in vulvovaginal disease; as early as 1878, this author had mentioned similar cases, before the discovery of Neisser's gonococcus.

In 1886, Leszynsky reported the largest epidemic of purulent ophthalmia in a charitable institution in New York. Of a total number of 212 inmates, 100 were girls between eight and fifteen years, and the remaining 112 girls and boys were under five years of age. "Leucorrhœa" was present in 22 of the little girls, and in 13 of the older set; 15 of the first group suffered also from purulent ophthalmia; a few days subsequently, seven additional cases of purulent ophthalmia presented themselves; all of them in girls, suffering from purulent vulvitis. The genital discharge was very irritating and produced excessive pruritus. Leszynsky believed that the ophthalmia was caused by direct conveyance of the pus from the vulva to the eye, the fingers having been the carriers of the virus. Though a microscopical examination of the discharges was not made, the gonorrhœic nature of the affection appears probable, from the severity of the eye symptoms and the infectiveness of the genital secretions. All the children made a complete recovery; in one case only, a leucoma of one eye remained. Other cases of ophthalmoblennorrhœa complicating gonorrhœal vulvovaginitis in children have been reported by Fraenkel, Czeri, Widmark, Skutsch, Sheffield, Cahen-Brach, Caillé, and Buschke.

Among all the cases under my observation, ophthalmoblennorrhœa was only seen once; it terminated in the complete recovery of the affected eye. From a study of the literature it appears that the ophthalmia is not a very frequent complication, it is mostly of benign character.

The most frequent complication is the gonorrhœic arthritis; according to Epstein, this may be subacute, acute, or suppurative; in very young children it often tends to suppuration; while in little girls above the second or third year the subacute form is most frequent. Philpot, in 1885, was one of the first authors to report this complication in vulvovaginitis of little girls. Hartley reported, in 1887, 4 cases in little girls between three and eight years of age; in one of these cases gonococci were found in the articular exudation.

Koplik saw among 100 children under the age of ten years, who were suffering from vulvovaginal inflammation, arthritis only in two girls of three and one half years and five years. Other cases were reported by: Cahen-Brach, H. Goldenberg, Baginsky, Henoch, Berggruen, Moncorvo, and Sheffield. Seiffert published, in 1896, an interesting observation of tenontothecitis gonorrhœica in a child of four years with gonorrhœal vulvovaginitis; examination of the puncture fluid showed gonococci, which were decolorized by Gram's method.

Epstein collected from the literature, in 1897, 28 cases of gonorrhœal arthritis of vulvovaginal origin, and added two of his own observation. I have seen this complication in 3 of my cases, Nos. V. VI, and XV, in a child aged twenty-two months, in another two years old, and in a third, a girl three years and nine months old; in this last case the joint effusion was examined and showed a pure culture of gonococci; all terminated favorably, without suppuration, after the expiration of a few weeks.

Gonorrhœal cystitis seems to be but very rarely observed. Wertheim has mentioned this complication in a child of nine years with gonorrhœal vulvovaginitis. Buschke has seen one case of severe cystitis among 50 such patients. Various authors, however, have observed colon bacillus cystitis in children suffering with vulvovaginal disease. Hutinel explains its origin in this manner, that the vulvovaginitis creates a favorable soil for the proliferation of the colon bacillus, which, in turn, may give rise to a cystitis. I have seen gonorrhœal cystitis but once, in a little girl of two years—Case X—recovery occurred after a few weeks.

The gravest and most dangerous complication is the gonorrhœal peritonitis; it may occur in acute or subacute form, localized or general. It is characterized by violent symptoms, and seems to be particularly fatal to children; in many cases of recovery residua of the inflammation often remain, which may give rise to pelvic trouble later in life.

Sigurd Loven reported, in 1886, the case of a girl aged five years, suffering from a vaginal discharge containing gonococci; she developed symptoms of acute peritonitis; the child died of sepsis on the eleventh day, post mortem diffuse peritonitis, abscesses in the tubes and left ovary were found; bacteriological examination of the peritoneal exudate revealed only streptococci.

In the same year Hatfield mentioned the case of a seven year old child, who suffered from nonspecific vaginitis, for which he ordered injections of zinc chloride; the next day the discharge was profuse, rather thick and yellow; on the following day the child was found in bed, with painful micturition, temperature of 102° F. and tenderness over the abdomen; in the next two days the symptoms abated, after the bowels had moved freely. Hatfield explains this case by the assumption, that on the simple vaginitis of the child gonorrhœa was engrafted by means of the syringe used for the vaginal injections, as the same had been used by another member of the family sick with gonorrhœa. No bacteriological examination was made.

In 1889, Huber cited a very interesting case of a girl, seven years old, who had been troubled with a vaginal discharge. She was taken ill with intense pain in the right iliac fossa, rigid abdominal muscles on the same side, subnormal temperature, and rapid occurrence of acute general peritonitis. The diagnosis of perforative appendicitis with general peritonitis was made. At the operation a seropurulent exudate was found; the appendix was perfectly normal; the right Fallopian tube was inflamed and thickened, and evidently the channel through which the infection had travelled from the vagina. Death occurred twenty hours after the operation.

In 1893, the same author published a second case of acute purulent peritonitis in a child aged four years; secondary to a vulvovaginal catarrh of about one week's duration. Laparotomy was performed. The abdominal cavity contained seropurulent fluid and the intestines were covred with lymph; the Falloppian tubes were thickened and acutely inflamed; the appendix was normal. The child died ten hours after operation. John S. Stevens reported, in 1891, acute fatal peritonitis in a child aged four years, suffering for some time from vaginal discharge. An autopsy was not performed.

Caillé mentions the case of an infant who suffered from vulvovaginal catarrh and ophthalmitis and finally developed peritonitis, from which it died; the father had gonorrhœa.

Baginsky's case refers to a twelve year old girl, in whom general peritonitis resulted from vulvovaginal disease; the genital discharge contained gonococci and staphylococci; post mortem purulent salpingitis and small various abscesses were found; bacteriological examination of the peritoneal exudate is not reported.

Saenger has seen violent peritonitis following gonorrhœic infection in a little girl of three years and a half.

Mejia describes the case of a girl, aged five years, with gonorrhœal vulvovaginitis; with pain in the abdomen for eight days, and aggravated symptoms in the last four days. Death occurred a few hours after admission to the hospital. Post mortem, about 200 c. c. of a fibrinopurulent exudate were found in the abdominal cavity. The tubes appeared normal; but a drop of pus exuded from the abdominal end on pressure. The exudate showed but few gonococci in cover glass preparations; examination from culture media revealed the presence of gonococci and *Bacterium coli.*

Braquehay reported the case of a four and a half year old girl, who had suffered for three months from vaginal discharge with gonococci; for eight days, pain in the hypogastrium and constipation; since three days' fever, vomit, and pain on the left side of the abdomen. Operation; recovery; no bacteriological report.

In an excellent article Hunner and Harris report, from Johns Hopkins Hospital, 3 cases of peritonitis in children with gonorrhœal vulvovaginitis; all three were operated on; 2 died, one recovered; gonococci were found in the peritoneal exudate of two children, while in the third case, gonococci were found culturally in the blood, taken from one of the brachial veins five days after the operation; this patient died.

Dowd presented before the New York Surgical Society a girl, aged seven years, whom he had operated on for acute, diffuse gonococcus peritonitis; the child suffered from a vaginal discharge with gonococci. At the operation the inflammation was found to be more marked in the pelvic cavity; the peritonæum was of a peculiar bright red color; there was some pus at the abdominal end of the right Falloppian tube; removal of right annexa; recovery. Smears made from the exudate showed the presence of gonococci; confirmed by Gram's method.

In addition, I will report a case of acute diffuse gonococcus peritonitis in a child, three years of age, with gonorrhœal vulvovaginitis:

Sarah R., two years and three quarter old, was brought to my clinic on October 13, 1902, with the following history: She had been a healthy child until one year of age, when she had convulsions. When about two years old, she had pneumonia, followed by empyema on the left side, for which she was operated on at home, and four weeks later, a second time in a city hospital; in the interval between the two operations, she has had an attack of measles. While in the hospital a swelling over the right knee developed, which was incised and pus evacuated. She then remained well until a few days before I first saw her, when a swelling appeared in the abdominal wall; this opened spontaneously, discharging a small amount of pus; another abscess soon appeared in the chest wall, which also opened spontaneously. Toward the end of October, the child began to cough and presented signs of fluid in the left pleural cavity. On this account admission was sought to the Mt. Sinai Hospital on November 9, 1902.

For the further notes I am indebted to Dr. Howard Lilienthal, to whose service the child was transferred for operation.

November 25th. Pleural abscess of the left side was evacuated.

January 1st. Patient developed vaginal discharge, containing gonococci.

January 8th. Temperature 103° F.; no retention in wound; some abdominal pain.

January 10th. Thoracoplasty (Schede) was performed.

January 11th. Temperature 102° F.; no cause for fever in wound; there were, however, tympanites and great tenderness over the abdomen.

January 12th. Temperature lower; general condition poor; child complains of abdominal pains; abdomen distended; rigidity of the abdominal walls; some cyanosis; repeated vomiting since last night; enemata ineffectual.

On the same day laparotomy in chloroform-anæsthesia by Dr. Elsberg, at the request of Dr. Lilienthal, was performed; no fluid in the peritoneal cavity was found; all parts of the abdomen seemed to be equally involved; the intestines were coated with fibrinous material and bound to each other by fresh adhesions; some of the loops were distended, while others were collapsed; the appendix was normal, excepting some fibrinous exudate found on its surface. Nothing abnormal was found in the uterus and annexa; the tubes were not dilated, nor did they seem to contain any fluid. The abdomen was washed out with saline solution; drainage; closure with through and through sutures.

January 13th. General condition poor; pulse weaker and weaker; death following symptoms of peritoneal sepsis. Cultures from the peritoneal exudate on ½ per cent. glucose-serum agar showed diplococci, responding in morphology, staining quality, and cultural characteristics to the gonococcus.

Treatment.—Heroic measures to abort the

gonorrhœal vulvovaginitis in the beginning were never attempted in my cases; I have also abstained from any intraurethral treatment.

To children, brought to the clinic with symptoms of acute inflammation, applications of weak solutions of potassium permanganate or liquor Burrowii to the vulva were ordered, besides sitzbaths of tepid water or weak solutions of potassium permanganate. Bed rest for the first few days only. The bowels were kept open by mild laxatives; only after the swelling of the vestibulum and the introitus abated, irrigations by means of a soft rubber catheter were given. The frequency of the irrigations depended upon the intensity of the discharge; if very profuse, two or three times a day; it is best for that purpose to place the child on a table in the dorsal position, the thighs spread apart and the legs flexed in the knee; for the douches, solutions of potassium permanganate (1 : 2000) were used, though occasionally solutions of creolin (½ to 1 per cent.), corrosive sublimate (1 : 2000 to 1 : 5000) and liquor Burrowii were employed. When the disease passed to the chronic stage, irrigations of solutions of silver nitrate (1 : 200 to 1 : 800) alternately with such of potassium permanganate were used.

To avoid spread of the infection to other mucosæ, the vulva, after having been dressed with iodoform or dermatol in powder or salve, was protected by a pad of sterile cotton, which was held in place by a T bandage, the clothing of the child being so arranged that the hands of the patient could not possibly come in contact with the genitalia. During the night a sort of combination night dress fulfills the same purpose.

The patient must sleep alone. Bedlinen and towels, as well as basins and other necessary utensils, should be set aside for separate use of the patient.

Epstein advises, as a prophylactic measure, to bathe the newborn in a weak antiseptic solution, and in case of suspicious genital discharge of the mother to instil silver nitrate solution, not only into the conjunctival sac, but also into the vagina of the newborn.

Since protargol was introduced in the treatment of acute gonorrhœa by Neisser and Benario, some five years ago, some very favorable reports of its use have appeared; owing to the greater cost of the drug, I have had only very little opportunity to use it in dispensary practice. Siebert recommends irrigations of protargol solutions (0.5 to 1 per cent.) as very efficient; while the child is placed in the dorsal position, it is gently injected into the vagina and permitted to remain in it for ten minutes, by keeping the labia closely together. This is done three times successively; the entire procedure lasting half an hour; this treatment is carried out three times a day; if the urethra is affected, injections into the urethra of the same strength are recommended. According to the reports of Siebert, the inflammatory symptoms disappear under this treatment in four to eight days, while the patients were cured in four weeks; there were no complications observed.

Appended are the histories of some selected cases:

Case I.—Antonia K., aged four years, was brought to the dispensary during September, 1901; she had been ill for eight days with painful and frequent micturition and copious discharge. On examination, the vulva was considerably swollen and reddened; profuse discharge from the vagina; gonococci were present, which decolorized by Gram's method, inguinal glands enlarged and sensitive on pressure; child had slept with her mother, who was being treated at the same time at the gynæcological department for leucorrhœa, in which gonococci were also found.

Case II.—Rose K., six years old, sister of patient in Case I., was taken ill a few days later with similar symptoms; the vulva was reddened and œdematous, with slight erosions of the mucosa; copious greenish discharge with gonococci. There were no constitutional symptoms.

Both these cases were exceedingly obstinate and, while improving considerably for a time, showed an inclination to exacerbations; at the last examination, made some three weeks ago, the vulva in both children showed but very few signs of irritation; there were no subjective symptoms; the vaginal discharge was scanty and thin, and showed no gonococci in a cover glass preparation or in culture media.

Case III.—Lena K., two years old, was treated in ——— Hospital for measles and croup. When she left the hospital, some two weeks before she was brought to the clinic, the vaginal discharge was noticed by the mother; the little one did not care to walk much, and seemed to have pain in passing urine; examination showed considerable swelling and redness of labia, of the orifice of the urethra, and the introitus; the vaginal discharge was purulent and copious and showed abundant gonococci.

Case IV.—Yetta K., four years old, sister of subject of Case III., was brought with similar symptoms to the clinic some three weeks later; she acquired the disease apparently from her younger sister; vaginal discharge showed the presence of gonococci.

Case V.—Elsie B., twenty-two months old, had suffered from discharge from vagina and rectum for the last week; urination frequent and scant. Examination showed swelling and redness of large and small labia of orifice of the urethra and introitus; the anus was also inflamed and sensitive to touch; there was a purulent discharge from vagina and rectum. Microscopical examination revealed abundant gonococci; according to the child's mother, her sister-in-law, who lives in the same house, suffers from a similar discharge; five days later, swelling and pain in the left knee; very tender to touch; evidence of fluid in the joint; effusion was not examined; under treatment the joint symptoms disappared gradually.

CASE VI.—Holdie S., two years old, was taken ill some seven weeks ago with diphtheria; three days later she was removed to ——— Hospital, from which she was discharged five weeks ago, when the vaginal discharge was first noticed; micturition had been painful. Two days before she was brought to the clinic, a painful swelling over the left foot was noticed. On examination, considerable swelling of the small labia and introitus vaginæ was found; crusts of dried pus on labia and perinæum; the vulva bathed in pus, yellowish green and sticky. The inguinal glands were somewhat enlarged; there were also redness and swelling over the left metatarsophalangeal joint (1); the skin above it tense, very sensitive to the touch; fluctuation could be easily elicited. The arthritis improved after a few weeks' duration.

The genital discharge contained abundant gonococci, discolored by Gram's method.

CASE VII.—Sophie D., three years old; genital discharge has existed for five months and a half; according to her mother, it was acquired at ——— Hospital, where she had been treated for scarlet fever and otitis media; six weeks ago had pneumonia. On admission: Discharge from both ears; swelling and redness of the labia and the introitus vaginæ; small amount of mucopurulent vaginal discharge, with gonococci. There was pain all over the abdomen, especially over the hypogastrium.

CASE VIII.—Bertha P., thirteen months and a half old. Three days before her first visit, left ——— Hospital, where she was operated on for a small tumor in the upper lip; on leaving the hospital the vaginal discharge was first noticed. On examination, the vulva appeared somewhat red and swollen; no urethritis; no buba; copious greenish discharge escaped from the vagina; abundant gonococci and streptococci were found; gonococci decolorized by Gram.

(To be concluded.)

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City Hospital, Cincinnati.—It is said that Dr. Frederick Lamb is to succeed to the position made vacant in the staff of this institution by the resignation of Dr. William Muehlberg, who is to take up private practice in Idaho Springs, Colo.

TWO CASES OF PARALYSIS OF THE EXTERNAL RECTI MUSCLES OF THE EYES, TABETIC IN ORIGIN; IMPROVED BY OPERATION.*

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Paralysis of the external ocular muscles is not uncommon. The study of these cases is usually one of much interest and the various features and complications, the symptoms, the pathology, the course and treatment, have always been the subject of much investigation.

All the external muscles may be affected, either one alone, or a group of them, as where the third nerve alone is involved. Or there may be one or two muscles supplied by the third nerve and at the same time an external rectus, or a superior oblique, or the muscles of one eye alone, or both eyes. In fact, all kinds of combinations of paralyses are seen sometimes with a spasm or contraction of an opposing muscle. Paralysis of one externus is frequent.

The lesion which causes paralysis may be central or peripheral. Rheumatism, diphtheria, poisons, meningitis, tumors of the brain, and injuries are some of the causes of this affection. But the underlying cause in a large proportion of cases is syphilis or some resultant disease.

The paralysis of an external ocular muscle is not uncommonly *the* symptom which, if not the first, is the one most marked to call atention to a late manifestation of syphilis. It is not an unusual thing for a patient to seek advice on account of a diplopia caused by paralysis of an external rectus muscle and to have this prove to be an early manifestation of tabes.

The treatment will depend largely on the cause, but each case should be treated according to the individual indications.

Many cases of this affection are cured permanently by the use of iodide of potassium and mercury. Some cases appear to recover without much treatment. Other cases may recover and, later on, have a recurrence of the paralysis.

Before any operative measures are employed, in a case of paralysis, it surely is one's duty to use all other means of relief, but when one is fully satisfied that other treatment will not avail, then it would seem that operation is indicated.

It is not the object of this paper to review the whole subject of paralysis of the external eye muscles, but simply to record the histories of two cases of paralysis of both external recti muscles, of tabetic origin. Both of these cases received treatment by other means before operations were done, and while a cure of the paralysis was not accomplished, the benefits derived would seem to have warranted the operations.

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* Read before the Ophthalmological Section of the New York Academy of Medicine, April 18, 1904.

Case I.—E. B. ——, aged thirty-one years, first came under my care October 28, 1890. He complained of diplopia, first noticed on getting up one morning four weeks before. No cause known. He had some dizziness. No pain. The patient is an unusually strong man, small, but very muscular, as he is a professional gymnast. He denies having had syphilis or rheumatism and, other than a history of a possible bubo, there is no certain evidence of syphilis. He had gonorrhœa seven years ago.

On examination there was found to be a well marked paresis of the left external rectus. There was ability to turn the left eye outward, but the motion was jerky. When looking straight forward with the right eye, the left eye was convergent and there was homonymous diplopia, which increased on looking to the left. The vision of each eye was $^{20}/_{20}$, and there was in each a hypermetropia of .50 D. Each eye read Jaeger 1 = 5″ to 20″.

At this time there were no decided symptoms of locomotor ataxia and, other than the paresis, the eyes showed nothing abnormal. The pupil, iris, lens, vitreous, and retina of each were apparently normal. The tension and visual fields, too, were normal. It is probable that at that time the patient had locomotor ataxia and that some indications of the disease were overlooked, or were so indefinite that a diagnosis of tabes was not then made.

In view of the subsequent history it would now seem that the paresis of the externus was itself a symptom of tabes. This disease is often insidious in its origin and many cases are slow in progress and, even with the most experienced, a correct diagnosis is not always possible in the early history of a case.

Syphilis is the frequent cause of paralysis of external eye muscles, and, while in this case there was no certain history of it, yet no other cause was clearly made out. It was decided to treat the patient on the assumption that the paresis was of syphilitic origin.

The diplopia unfitted him to perform gmynastic feats and he had been obliged to give up this occupation.

He was put on the use of iodide of potassium in increasing doses and also of bichloride of mercury. These were continued for several weeks, the patient not being badly affected by the increase of potassium iodide. At times he seemed to feel that the diplopia was not so marked, but the tests showed slight, if any, improvement. The diplopia continued and, at 20 feet, was not corrected by a prism of over 30°. The iodide was not increased to the very large doses given by some; two drachms, three times a day, being the largest amount. Later, the mercury was discontinued and sulphate of strychnine thoroughly used, but without apparent benefit as to the paresis. Mercurial ointment was also employed quite thoroughly, but without any apparent effect on the paresis.

In February, 1891, the patient was under the care of Dr. Victoria for a swelling in the right groin, and this, no doubt, was a bubo. It was opened and a wineglassful of pus removed. The treatment with mercury and potassium iodide was continued.

In April, there developed an ulcer of the cornea of the left eye, probably of traumatic origin and increased by improper home treatment before the patient came to my office. Under the use of hot water and atropine the ulcer promptly healed, and the eye was left in its previous condition, i. e., with normal vision, but with paresis of the externus.

The patient was seen at intervals subsequently, but there was practically no improvement as to the paresis; the diplopia continued as before.

In July, 1891, nine months after the onset of the paresis, it seemed, in spite of treatment, that there was no improvement and so, under use of cocaine, a complete tenotomy of the left internal rectus was done and a guy suture used to hold the eye well out to the external canthus. This suture was removed on the following day. Parallelism, for all parts of the field, followed this operation. The action of the internal rectus was somewhat diminished and the externus still showed some spasmodic motion, but, while previously the patient had constantly carried the head to the left, in order to avoid diplopia, after the operation there was no such necessity.

The patient, three or four weeks later, resumed his work, performing all his usual feats on horizontal bars, tumbling, balancing, etc., and was greatly pleased, as after some practice, he was able to perform as well as before.

In December, five months later, his condition remained the same. At 20 feet distance there was a convergence of 7.0 by prism test, but there was no diplopia, at distance or near, except when the candle was carried to 40.0 to the left. The internus was still slightly limited in motion, but not so that there was diplopia to the right, and the motion of the left externus was somewhat spasdomic.

The patient's general condition was at this time all right, and there was no indication of tabes, or at least none was noted.

The patient was lost sight of after this, until December 23, 1903, twelve and a half years after the tenotomy was done.

He stated that he had had no trouble with his eye and had followed the same occupation as before. He had had some affection of the stomach, and in 1898 had been under the care of Dr. Meyer Jackson, and had been operated on by Dr. A. J. McCosh.

Dr. Jackson writes me that, at that time there was vomiting of coffee ground colored material sometimes with blood. The possibility of this being due to an ulcerated condition of the stomach led to an operation. A marked thickening and congestion of the walls of the stomach was found, but no ulceration. The over indulgence in stimulants may have had much to do with this condition. Irrigation of the stomach, after recovery from this operation, was used with benefit.

The patient now came on account of diplopia, which had been present for the past eight weeks and, on examination, it was found that this was due to a complete paralysis of the right externus, a similar condition to that of thirteen years before; but now there was inability to move the right eye outward past the median line, while, in the previous attack, there had been only partial paresis and the left eye could be moved outward. There was also found now a slight ptosis of both eyes and some paresis of the left superior rectus. The limitation of motion of the left internus, a result of the previous tenotomy, remained. There were also well marked symptoms of locomotor ataxia. He had the recurring attacks of darting pains in the leg, the Argyle-Robertson pupils, ptosis, the paralysis of the external ocular muscle, and many other familiar signs. The knee jerk was not quite normal, but was present.

Dr. J. F. Terriberry, who kindly examined the patient, felt certain that there was no question as to the diagnosis, and thought the probable cause to have been exposure, while perspiring freely after his gymnastic work.

It seemed useless to try to relieve the present condition by medication and, while the outlook for benefit by operation was not especially good, operation seemed to be the only thing to do.

The vision in each eye was normal, $^{20}/_{20}$ plus. The patient, now forty-four years of age, had rather less accommodation than was normal at his age. Both optic discs were somewhat pale. Visual fields for white were normal. The left externus, the muscle affected thirteen years ago, had now good power and the eye could be turned well out.

On December 29, 1903, a complete tenotomy of the right internus was done and, as this did not produce enough effect, one month later, January 27, 1904, an advancement of the right externus was done. There was normal healing and the result has been as satisfactory as, under the circumstances, could be reasonably expected. One month later there was no diploplia centrally, nor to either side, until the candle was carried to 45°, and this was the same to the left as well as to the right, the right internus not having full power. As the nose shut off the vision of one eye when the candle was carried far out to the other side, the diplopia in this part was now of slight annoyance. The right externus did not seem to have sufficient power of motion, so that binocular single vision could be retained as far as it was, but repeated tests gave the same result.

The appearance of the patient was certainly greatly improved, for as he looked straight at one, his eyes showed no deviation. He was greatly pleased and thought he was in condition to resume gymnastic work. But, considering the well pronounced condition of tabes at this time, he was advised to do some other kind of work.

On April 14th, that is, four days ago, which was about two months since I had last seen the patient and three months since the last operation, the condition was a complete restoration of the power of the external rectus of the right eye, so that this eye could be turned fully to the external canthus. The left eye can be turned fairly well out, but the left internus is still somewhat limited in action as before. There is a jerky motion as the eyes are turned in different directions. As the paralysis of the right externus had been complete, it is of interest to find a cure of this following the operation, and the result has been much more pleasing than was to be expected.

The patient's stomach has again, during the past few weeks, given much trouble, so that his general condition has been very poor.

The examination now shows vision $^{20}/_{20}$ + in each eye and ability to read Jaeger 1 at 8 inches with + 2 D. At 20 feet there is a divergence of from 2° to 4°. There is no diplopia centrally, but diplopia appears on the right side at 30°, and this is due to the limited action of the left internus. On the left side diplopia begins at 40° to 45°. Both pupils are small. The visual fields for white are normal, but color fields are somewhat contracted. The optic discs are perhaps a little paler than normal.

CASE II.—H. B. W. ——, a proof reader, thirty-nine years of age, was referred to me by Dr. John B. Knapp, and was first seen March 24, 1896. He stated that in 1887 he noticed a creepy sensation in his left eye which was soon followed by diplopia, which had since increased. The right eye soon turned inward, and this phenomenon had increased to a marked degree. The left eye also turned in, but not so much as the right, so that, while he still had diplopia most of the time, he had acquired the habit of turning his head so as to use the left eye at his work, in such a way that he could disregard the vision of the right eye. In 1881 he had had a sore on the penis. This had been cauterized. There had been no history of a secondary eruption. More recently had had sciatica. He was married and had had one child, who died from convulsions at four months of age.

For his ocular condition he had had much treatment by two prominent oculists. Had taken iodide of potassium in large doses and long continued, and other medicines, but without benefit.

On examination, there was found a complete paralysis of both external recti—the right eye being more convergent than the left. There was diplopia in all parts of the field, except where the nose shut off the vision of one or the other eye. The vision of each eye was $^{20}/_{20}$, and each eye read Jaeger No. 1 from 5 to 21 inches. With the ophthalmoscope there 1 D. of hypermetropia. Both pupils were very small and there was no response to light, and very doubtful response in accommodation. The optic discs were possibly a little paler than normal. The visual fields showed no changes from normal. There was no ptosis. There was no knee jerk. That the patient then had locomotor ataxia of syphilitic origin seemed fairly certain, although there may have been some reason for doubt on this point.

Several physicians, whom the patient had consulted, told him that he had locomotor ataxia.

The outlook for improvement as to the paralysis, by any plan of treatment other than operation, did not seem good. The paralysis of each externus had now existed for nine years, and in spite of much treatment and by thoroughly competent men, had steadily grown worse. The possibility of the paralysis disappearing and then, after operation, the eyes being in a worse condition than before, was fully considered.

On April 13, 1896, a complete tenotomy of both interni with advancement of the right externus was done, and as this did not give enough improvement, about one month later an advancement of the left externus and tenotomy of the left internus were done. A fairly satisfactory result followed, and one month later the record showed that, at 20 feet, there was, in central fixation, parallelism or, at times, 2° of convergence. There was slight power of each externus, but this did not amount to much, and while the patient had no diplopia centrally, it was present on turning the eyes to either side, even a few degrees.

In reading, the result was more satisfactory. There was binocular single vision, and even with the necessity of slightly moving the head to maintain this, the patient found his condition to be greatly improved. The benefit to his appearance was marked, as, instead of the extreme convergence, which could not be concealed by the turning of the head, as where there is a paralysis of only one externus, the eyes appeared normal in central fixation, and as he turned his head to look to the side, the abnormal condition was not especially noticeable.

The patient was seen at intervals for a few months and the eyes remained in the same condition.

Two years later, he was seen on account of a small subconjunctival hæmorrhage, which was quickly absorbed.

The patient was not seen again until March 12, 1904, when he came in response to an inquiry as to his condition. At this time, eight years after the operations, and seventeen years since the paralysis first appeared, the ocular condition remained practically as it was immediately after the operations. There was V. R. $^{20}/_{20}$ and V. L. $^{20}/_{30}$ plus — a possible .50 D., with astigmatism against the rule. Each eye read Jaeger 1—from 6 to 20 inches without glasses. As his age was, at this time, forty-seven years, he had better power of accommodation than usual. There was no diplopia centrally, but this was present to the extent of 5° to 10° on either side, and was increasing. There was apparently only a trifle of power of motion in each externus. He had binocular single vision, and at 20 feet, there was, with prisms, 4° to 6° of convergence and about the same with the cover test. The pupils were small, 2 to 2.5 mm. in diameter, and there was no response to light and no accommodation. There was slight ptosis of each eye, and a jerky motion usually to the muscles of both eyes. Centrally, the eyes seemed to be parallel. In reading there was no diplopia and no difficulty, as by slight movement of the head from side to side, he followed the lines without trouble. The visual fields showed nothing abnormal. From the unsatisfactory view with the ophthalmoscope, on account of the small pupils, it was thought that the optic discs showed about the same condition as before, that is, they were somewhat pale.

The patient had had an attack of typhoid fever three years previously, with good recovery. Aside from this he had been in good health. There was no history that during the past eight years he had had any manifestations of tabes. There was still no knee jerk, and with the ocular symptoms of tabes still present, it was thought that this diagnosis was correct. These cases vary so much as to the rapidity of progress and as to the duration of time between decided manifestations, that there seemed no good reason in this case for a change of opinion as to diagnosis.

As to the result of the operations, the patient, fully conscious that the impossible could not be accomplished, has been perfectly satisfied and says that he has used his eyes with comfort, and while not doing his former work of proof reading, gets along very well with his present occupation. The appearance of his eyes is certainly greatly improved.

What may be the future course in this case cannot be told. If the diagnosis of tabes is right, the prognosis is, of course, fairly certain as to the general condition.

There are several points about these two cases that seem worthy of attention. In both the paralysis was undoubtely due to tabes, and in the first the tabes may have been of syphilitic origin, as well as in the second case, where the history was more certain. That tabes in the first case may have been due to exposure is also a reasonable supposition; the patient being a gymnast, irregular in his habits, and often after much exercise and while in profuse perspirations, very likely to be careless in exposing himself to cold air. In both cases it was paralysis of both externi, althought in the first, thirteen years elapsed after one externus was affected before the other showed the same condition. In both cases there had been thorough and long continued treatment by internal medication without benefit. The first case was treated by myself for over nine months before operation, and the second case had been treated by others for over nine years.

As to the results of the operations, it is worthy of note in the first case that, following the first operation, the patient was cured of diplopia and that he was able to continue his work as an allround gymnast until the other externus was affected, thirteen years later. It certainly would seem that in this kind of work binocular single vision is very important and this could not have been maintained if the previously affected muscle had not resumed its normal function. It might be held that the muscle resumed its power, but not on account of the operation. But if this was true, a divergence following the tenotomy would have been present, which was not the case. It is, to be sure, a common history that paresis of an external ocular muscle begins suddenly and also may disappear suddenly.

Where there is a paresis of an external rectus there may be an undue contraction of the internus, so that this tends to increase the diplopia, and in such a case a tenotomy of the internus is beneficial, in that it relieves the spasm and contraction of the internus, and at the same time puts the externus in better condition to recover its lost power.

In both these cases the personal appearance of the patients has been certainly greatly improved; both have been cured of diplopia and both have binocular single vision, at least centrally, and this condition has remained, in one case thirteen years, and in the other eight years. In the first case, that of the gymnast, where an operation was only recently done, that is, in December, 1903, it may now be too soon to feel certain as to the result, but so far it has been as satisfactory as could be expected.

35 WEST THIRTY-SIXTH STREET.

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Graduates of the Illinois Medical College.—The following received the degree of M. D. from this institution on September 29th: William G. Alexander, Ed Hall Baker, Hugh R. Bohannan, Bert M. Barringer, James H. Fitzbutler, George A. Kelso, Robert W. Kunz, Herbert Y. Mullin, Charles E. Flaut, James H. Donogue, J. H. O'Neil, Herman H. Rohwedder, James A. Rawley, Samuel A. Smith, William A. Steffen, A. Herbert Whitney, James H. Work, I. C. Young.

A CONTRIBUTION TO THE SURGERY OF NEPHRITIS. REPORT OF CASE.

By C. W. WILLE, M. D.,
BALTIMORE,
ASSISTANT SURGEON, PUBLIC HEALTH, AND MARINE HOSPITAL SERVICE.

I wish to put on record the following case as additional positive evidence of the value of decapsulation of the kidney for the cure or amelioration of certain forms of nephritis:

Peter B., aged eighteen years, transferred to the Baltimore Marine Hospital, with a history of subacute nephritis of at least one month's standing. He ascribed his illness to an attack of influenza contracted prior to the onset of his kidney trouble.

For two months and eight days following his admission to this hospital, he was placed on careful dietetic and medicinal treatment, with no improvement whatsoever of his physical condition, or of the quality of his urine. Weekly analyses were made of samples taken from the total quantity of urine collected throughout the preceding 24 hours (as was done throughout the whole series of analyses), the adjoined table showing that the quantity of albumin excreted in the urine varied from 4.60 grammes to 13.50 grammes per diem, the mean of this series of examinations amounting to 8.42 grammes per day.

Date, 1904.	Sp. grm.	Gr. alb. per 1,000.	Daily quan. urine.	Grm. alb. per diem.	Remarks.
February 15...	1015	3.50	1200	4.20	Hyal. and gran. casts.
February 22...	1015	4.00	1750	7.00	
February 29...	1015	2.00	3000	6.00	Hyal. and gran. casts.
March 7.......	1014	3.50	3300	11.55	
March 14......	1009	2.75	3100	8.50	
March 21......	1015	4.00	3250	13.00	
March 28......	1005	1.50	3700	15.55	
April 4........	1006	3.00	4500	13.50	
April 11.......	1004	2.00	3600	7.20	
April 18.......	1010	2.75	2300	6.32	
April 20......	Operation on right kidney.				
April 22.......	1011	2.00	1800	3.60	
April 25.......	1005	1.00	4300	4.30	Hyal. and gran. casts.
April 28.......	1006	1.50	3000	4.50	
May 2..........	1008	1.50	3300	4.95	Hyal. and gran. casts.
May 5..........	1007	1.25	2100	2.62	
May 9..........	1005	1.00	4000	4.00	
May 11........	Operation on left kidney.				
May 16.........	1003	1.00	2150	2.15	
May 19.........	1004	0.8	2500	2.00	
May 23.........	1007	1.3	2200	2.86	
May 26.........	1003	0.5	2000	1.00	Few hyal. and gran. casts.
June 6.........	1008	1.25	1500	1.87	
June 10........	1007	0.8	2000	1.60	Few hyal. and gran. casts.
June 13........	1006	0.25	2000	0.50	

The average daily quantity of urine voided, it was observed, was much in excess of the output under normal conditions; this excessive quantity is explained by an attempt to flush the kidney by encouraging the patient to drink large quantities of water.

The failure of this line of treatment, after over two months' trial, certainly justified a recourse to operative measures. The right kidney was stripped and its capsule removed. Semi-weekly analyses of the urine, made over a period of three weeks following this operation, showed a perceptible diminution of the quantity of albumin excreted, the mean taken from the aggregate number of examinations reaching but 4 grammes per diem; a decrease of 4.42 grammes per day, which can only be attributed to this operation. The daily output of urine and its specific gravity remained practically the same as prior to operation, owing to the considerable quantities of water which the patient still continued to take.

Following the second operation on the left kidney, the table shows a considerable decrease in the daily output of albumin, which fell all the way from 2.15 grammes to 0.5 grammes per diem, at the time of his discharge from the hospital. These observations extended over a period of one month, during which time the mean of albumin excreted daily was 1.68 grammes, or an average daily decrease of 2.32 grammes; which must be credited to the second operation. The high percentages of albumin of June 6th and 10th followed great indiscretions in diet while the patient was working in the hospital kitchen.

Repeated microscopical examinations showed a decrease in the number of hyaline and granular casts, which on admission literally crowded the field, and just prior to discharge they were so few in number as to be exceedingly difficult to find. The quantity of urea remained from 2.5 to 3 per cent.

The results in this case were certainly gratifying, as it was my pleasure, not only to see this gradual betterment of the urinary condition, as evidenced by the analyses, but to note also a rapid improvement in the patient's general health, which was not observed during the period of dietetics and medication which preceded the operation.

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Bathing During the Menstrual Period.—Edgar, in the *American Journal of Obstetrics*, for September, 1904, draws the following conclusions: 1. All forms of bathing during the menstrual period are largely a matter of habit and can usually be acquired by cautious progression, but this does not hold good for every woman. Surf bathing, with its accompanying chilling of the entire surface of the body, should always be excepted. 2. A daily tepid sponge bath (85° to 92° F.) during the menstrual period is not only a harmless proceeding, but is demanded by the rules of hygiene. 3. In the majority of, if not in all women, tepid sponge bathing (85° to 92° F.) after the establishment of the menstrual flow, that is on the second or third day, is a perfectly safe practice. 4. In most women, the habit of using the tepid shower or tub bath, after the first day or two of the flow, can be acquired with safety.

Therapeutical Notes.

Vomiting.—Lemoine, in *Nord médical*, for September 15, 1904, says that he has found the following mixture valuable in the vomiting of pregnancy, and also in various cases of gastritis:

℞ Menthol ....30 centigrammes (1½ grain);
Tincture of opium
Tincture of belladonna } of each.........1 gramme (15 drops);
Tincture of hyoscyamus
Alcohol ....20 grammes ($^2/_3$ ounce).

M. Five drops, in a little water, every hour.

The Striæ Atrophicæ of Pregnancy.—In answer to a correspondent who demanded a prescription for the lineæ albicantes of a coquettish patient, *Journal des praticiens*, for September 25, 1904, advised the following:

℞ Tincture of nux vomica }
Tincture of calisaya } of each.........5 grammes (75 minims;
Lanolin }
Petrolatum } of each.......20 grammes ($^2/_3$ ounce).

M. To be applied by massage for ten minutes every evening.

The ointment may be removed on the following morning with eau de cologne. The *Journal des praticiens* does not guarantee satisfactory results, but urges patience.

Catarrhal Angina.—Carron de la Carrière, according to *Revue française de médecine et de chirurgie*, for September 19, 1904, recommends:

℞ Salol ....2 grammes (30 grains);
Oil of sweet almonds }
Gum arabic } of each...........4 grammes (1 drachm);
Simple syrup..............90 grammes (3 ounces);
Orange flower water...............enough to flavor.

M. For four doses to be taken during the day.

Diphtheria Antitoxine in Whooping Cough.—Passalacqua, of Messina, according to *Médicine orientale*, for September 25, 1904, has found diphtheria antitoxine of 1,000 units valuable in whooping cough. In seven severe cases, in which bronchopneumonia had set in, he had excellent results after three injections. Improvement began at once, although permanent effects were delayed longer than in diphtheria, in one case six days elapsing before danger had passed.

Use of the Needle of the Pravaz Syringe for Emergency Sutures.—In cases of necessity, an ordinary sewing needle and common thread will serve to suture a wound. In such cases, the passage through the wound of the end of the needle containing the eye is likely to be painful. Dr. Gerest, of Saint-Etienne, according to *Semaine médicale*, for September 21, 1904, uses in emergencies the needle of a Pravaz syringe containing the wire usually inside to prevent rust. The wire should not project beyond the needle's point. The lips of the wound having been transfixed by the needle, the latter is withdrawn, leaving the wire in situ; the ends of the wire may then be knotted together and the suture is complete.

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THE CLINICAL THERMOMETER.

It is perhaps true that many an anxious layman, even many a conscientious physician, has been needlessly frightened by an accurate thermometric observation, and it is doubtless also true that in clinical thermometry a small fraction of a Fahrenheit degree is ordinarily negligible. Nevertheless, we must continue to rely on the thermometer in daily practice, and if we are to rate it as an instrument of precision, we must insist that it shall be accurate. No archer can hit the sun, but he who aims at the zenith will shoot higher than he whose aim is wild.

The clinical thermometer has come into such general use, and the casualties that call for the immediate purchase of a new one are so frequent, that we have all, physicians and laymen alike, got into the habit of buying our thermometers of the apothecary; hence the apothecary should take all possible pains to keep for sale only such instruments as are the best to be obtained. This consideration has induced Mr. Caswell A. Mayo, the editor of the *American Druggist* and a pharmacist of high standing, to undertake an examination of the thermometers found in the apothecaries' shops and an investigation of the means open to pharmacists for ascertaining the quality of the instruments that they offer for sale. In this issue we publish Mr. Mayo's account in the form of a paper presented at the recent annual meeting of the American Pharmaceutical Association. In our opinion the article is intrinsically very interesting, and certainly it must prove of great value in leading physicians to trust to none but accurate thermometers and in demonstrating to the dealers that they have nothing to lose, but much to gain in reputation, by furnishing such instruments and such only.

THE HOT SPRINGS OF ARKANSAS AND THE RADIOACTIVITY OF THEIR WATERS.

In view of the poverty of the waters of the Hot Springs of Arkansas in mineral matters, we have all heretofore been puzzled to account for their unquestionable medicinal properties. Possibly the explanation is to be drawn from certain researches by Dr. Bertram B. Boltwood, of New Haven, who was authorized by the Secretary of the Interior to examine into the radioactive properties of the waters of the Hot Springs Reservation. He has submitted his report, and the substance of it has recently been made public. In the introduction to his report, Dr. Boltwood gives a lucid and interesting account of the present state of our knowledge concerning the radioactivity of matter, with a brief résumé of the history of discoveries relating to this phenomenon. He then proceeds to consider the waters of the Hot Springs.

Specimens of the waters of the Hot Springs Reservation were collected at the springs and placed in sealed glass receptacles. These were shipped to New Haven, where the tests were conducted. The method of examination used by Dr. Boltwood was to separate the gases and emanations from the water by boiling the water in an apparatus which is a modification of that described by Reichhardt, after which the emanation was measured by an electroscope somewhat similar to that used by Wilson. In expressing the results of his experiments, Dr. Boltwood found it necessary to devise a new system of standardization, which would permit of the direct comparison of the results obtained with the different waters and by different experimenters. Curie in his investigations of European mineral springs used as a standard the quantity of emanation produced by a known weight of pure radium bromide. The objection to this is that it is impossible for others to obtain at present even small quantities of radium bromide of known and established purity. The plan used by other investigators, of expressing the result in the number of ions produced, involves a standard which is uncertain and difficult to determine. The standard originated by Dr. Boltwood, for which he is entitled to great credit, is the quantity of radium emanation set free when a known weight of uranium contained in a natural mineral is dissolved in a suitable reagent. This standard, he says, can readily be reproduced, and will permit of the reduction of the results to terms of pure radium, if that becomes the future basis of expression. The mineral used by Dr. Boltwood was pure uraninite from Spruce Pine, N. C.

Dr. Boltwood describes in detail the methods pursued by him in his investigations, which were very exhaustive and covered a period of several months. The results of the electroscopic tests of the gases obtained by boiling the waters were very satisfactory, as they showed that the waters at Hot Springs were radioactive to a marked degree; and from other tests, taken to determine the properties of the emanation from the waters, it was found that the properties of these radioactive gases were identical with those of the radium emanation. On the other hand, when water from which the gas had once been taken was boiled a second time, after being allowed to stand, no radioactivity was detected in the gas obtained from it; and it was therefore concluded that little or no radium salts existed in the waters. This conclusion was strengthened by the fact that a test of the residue of the waters which had been left by evaporation also failed to disclose any sign of radioactivity of this solid substance. A sample from the tufa deposit formed by some of the springs on issuing from the ground was also tested, and it was found that the amount of radium contained in 100 grammes of the tufa was less than one one-millionth of the quantity of radium associated with an equal weight of uranium in pitchblende. Samples of the gas which arose from the springs were also tested, and its radioactivity was found to be less than that of an equal volume of gas obtained by boiling the waters from the springs.

The following conclusions are reached by Dr. Boltwood as the result of his investigations: 1. The waters of the springs on the Hot Springs Reservation are all radioactive to a marked degree. 2. The radioactivity of the waters is due to dissolved radium emanation (a gas), and not to the presence of salts of radium or other radioactive solids. 3. The tufa deposited by the springs does not contain appreciable quantities of radium compounds.

ULCER OF THE STOMACH AND A SPECIFIC GASTROTOXIC SERUM.

In an attempt to throw some light on the patheogeny of ulcer of the stomach and, incidentally, to add to our knowledge of cytotoxic action, Dr. Charles Bolton, research scholar of the Grocers' Company of London (*Proceedings of the Royal Society,* September 28th), has performed a number of experiments in which he seems to have brought about the formation of a gastric toxine in the serum of an animal by means of subcutaneous or intraperitoneal injections of a magma made from the gastric mucous membrane of another animal. In a few instances he used an extract of the gastric mucosa made with a 0.1 per cent. solution of hydrochloric acid or a 0.4 per cent. solution of sodium bicarbonate. His usual method of obtaining the material was as follows: A guinea pig was deprived of food for about twenty-four hours, so that its stomach was empty. It was then killed with chloroform and its stomach was at once cut out, opened, and thoroughly washed in a stream of a 0.86 per cent. solution of sodium chloride, all the adherent mucus being completely removed. The mucous membrane was then scraped off and ground up into an emulsion with a solution of salt. The emulsion was passed through a Pasteur-Chamberland filter, and the filtrate was used for the injections.

The injected animals always showed signs of shock, with depression of the temperature, but they recovered from these effects unless the dose was a large one or unless bacterial infection had taken place. In the serum of their blood, however, there was produced a toxic substance that appeared to have a special affinity for the mucous membrane of the stomach and also exerted a hæmolytic action. These properties were manifested by patches of necrosis with hæmorrhage. It is suggested by the author that such a toxic substance may be formed in the blood as a pathological occurrence and prove the source of gastric ulcer.

RUPTURE OF MUSCLES IN TYPHOID FEVER.

The fact of encountering a case of rupture of the rectus abdominis in the course of typhoid fever has led Pérochaud and Doucet (*Gazette médicale de Nantes,* September 17th) to analyze the literature of the subject. Although the occurrence is rare, they find that such early observers as Louis, Andral, and Stolhes were mistaken in implying that it was never met with. Velpeau, indeed, reported a case so long ago as in 1832, and expressed the opinion that there was nothing astonishing in such ruptures, since the muscles became so fragile in the advanced stages of putrid fevers that their rupture in the disorderly movements of delirium was easily conceived of. Not only does muscular rupture take place in typhoid fever, but its occurrence does not seem to be very rare, for in post mortem examinations of 202 persons dead of the disease Jankowski, of the Berlin Charité, found rupture of the rectus abdominis eleven times.

The authors' own case is somewhat remarkable by reason of the early period of the disease in which the rupture occurred, on about the tenth day. There was swelling, somewhat movable, at the site of laceration, with tenderness, but there was no ecchymosis, and the diagnosis of muscular rupture does not seem to have been made early. It was verified, however, after the patient's death. He was delirious at the time the swelling was discovered, and so continued to the last, though the delirium was of varying severity. It is only in very serious cases of typhoid fever that muscular rupture occurs; consequently it is of grave prognostic import. Apparently suppuration is to be expected, for the authors advise surgical intervention on the detection of fluctuation.

THE MANY-SIDED PHYSICIAN.

Dr. Osler has just had published a book on *Science and Immortality* which does not deal directly with the practice of medicine. In this regard he is quite in conformity with other medical men of the first rank, both in the past and in the present—Sir Thomas Browne, Oliver Wendell Holmes, Weir Mitchell, Conan Doyle, and Frederick Peterson (who has produced some excellent verse). It is certainly an amiable propensity in men of science to evince a collateral interest in matters not intimately associated with their life work. Billroth was a superb player upon the piano, Strümpell an excellent violinist. Men in other callings manifest the same gracious trend. Gladstone was an excellent Greek scholar. He also entered the lists as a champion of the literal interpretation of Genesis (in which course, I think—I hope not irreverently—he was unwise, for in the controversy Huxley and others worsted him). Salisbury was an adept in electricity. Balfour dabbles in psychical research. Chamberlain cultivates orchids. Choate is familiar with much more than the law. If he knew only the law and little else, he would never have become so great a lawyer.

The physician cannot afford to be impervious to anything that is vitally human. To keep looking into a microscope, always to be giving so much calomel for a coated tongue, such things as these are not enough. The physician must become saturated with the world about him. Dr. Osler would have his students take up some form of non-professional recreation. "Do not become too deeply absorbed in your profession," he says, "to exclude all outside interests. No matter what it is, have an outside hobby. When tired of anatomy, refresh your minds with Oliver Wendell Holmes, Keats. Shelley, or Shakespeare."

However, there are some physicians who made a bad mess of their combined activities. Nolly Goldsmith was an execrable and preposterous failure as a doctor. But, then, a man who could write such exquisite English had no business practising medicine. Keats, again, was a failure; of course the writer of such verse as Endymion was temperamentally incapable of testing gastric contents or of getting a symptomatology of constipation.

One may then ask: Is there not danger of neglecting or slighting medical work in cultivating these fads? There is, if one conceives the often fatal determination to produce works upon given hobbies. It is not given to all—most fortunately—to produce good literature upon any subject. But all men can be appreciators of good works—a beautiful picture, a soul-pervading symphony, an exquisite wine, a good book, or a noble poem. To take months or years—many years—in learning how to appreciate adequately such things as these is good and profitable for any man, physician or other, both directly and indirectly. JOHN B. HUBER.

THE NEW YORK STATE MEDICAL ASSOCIATION.

The association's annual meeting, held in New York this week, though a short one, lasting only three days, was marked by a large attendance. The projected amalgamation with the Medical Society of the State of New York having, for the present at least, failed of consummation by reason of a legal technicality, a new committee of conference was appointed, but without power. It seemed to be the sense of the meeting that the old committee, to which power had been given, had conceded too much in reaching an agreement with the society's committee. This is a very natural feeling, but there will necessarily be conflicting views among the profession of the State as to what amount of substantial basis there may be for it, and even in each of the two bodies concerned there are likely to be divergent opinions, so that the postponement of a very desirable consolidation may be protracted. The situation can only be a matter of deep regret with the great majority of the physicians of the State, but we earnestly hope that renewed efforts for harmony may prove successful more speedily than the present outlook would indicate.

CHANCRE OF THE CERVIX UTERI.

It is a common experience to find a syphilitic woman who denies having had the initial lesion of syphilis. In so denying she is usually honest, so unobstrusive is chancre apt to be in women. Even the physician cannot always find traces of its existence after the lapse of a short time. This seems to be particularly the case when the chancre attacks the cervix uteri, for, as is pointed out by Thibierge (*Annales de dermatologie et de syphiligraphie*, February; *Berliner klinische Wochenschrift*, September 12th), in that situation it is very evanescent, and, even when it persists, it is very apt to take on a decidedly ulcerative form and to bleed so readily as to give rise to the suspicion of epithelioma.

THE NEW YORK BOARD OF HEALTH'S RESPIRATORY DISEASES COMMISSION.

The initial work already done by the unofficial commission appointed by the Health Department to investigate acute respiratory diseases from the point of view of the public health is decidedly of the right sort, the various obvious subdivisions of the subject having been intelligently singled out and the constitution of the commission satisfactorily accomplished.

News Items.

Society Meetings for the Coming Week:

MONDAY, *October 24th.*—Medical Society of the County of New York (annual meeting); Lawrence, Mass., Medical Club (private); Cambridge, Mass., Society for Medical Improvement; Baltimore Medical Association.

TUESDAY, *October 25th.*—Metropolitan Medical Society, New York (private); Buffalo Academy of Medicine (Section in Obstetrics and Gynæcology); Richmond, Va., Academy of Medicine and Surgery; New York Medical Union (private); Rome, N. Y., Medical Society; Boston Society of Medical Sciences (private).

WEDNESDAY, *October 26th.*—New York Academy of Medicine (Section in Laryngology and Rhinology); New York Pathological Society; New York Surgical Society; American Microscopical Society of the City of New York; Philadelphia County Medical Society; New York Dermatological Society (private); Auburn, N. Y., City Medical Association; Berkshire, Mass., District Medical Society (Pittsfield).

THURSDAY, *October 27th.*—New York Academy of Medicine (Section in Obstetrics and Gynæcology); New York Orthopædic Society; Brooklyn Pathological Society; Brooklyn Society for Neurology; Roxbury, Mass., Society for Medical Improvement (private); Pathological Society of Philadelphia; Church Hill Medical Society of Richmond, Va.; New York Celtic Medical Society.

FRIDAY, *October 28th.*—New York Clinical Society (private); New York Society of German Physicians; Yorkville Medical Association, New York (private); Philadelphia Clinical Society; Philadelphia Laryngological Society.

NEW YORK.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending October 15, 1904:

	October 8.		October 15.	
	Cases.	Deaths.	Cases.	Deaths.
Measles	44	3	52	6
Diphtheria and croup	248	24	275	26
Scarlet fever	103	6	109	8
Smallpox	..	1	1	..
Chickenpox	16	..	26	..
Tuberculosis	291	157	320	157
Typhoid fever	136	26	140	26
Cerebrospinal meningitis	..	10	..	13
Totals	838	237	923	236

Changes of Address.—Dr. Henry W. Carter, to 242 East Eighty-sixth Street, New York; Dr. Herman Klein, of Baltimore, to 331 East Seventy-seventh Street, New York; Dr. William B. Noyes, to 107 West Sixty-ninth Street, New York; Dr. John C. Lester, to 616 Madison Avenue, New York; Dr. W. R. Williams, to 11 South Forty-second Street, Philadelphia.

An Opening on the Visiting Staff of Bellevue Hospital.—Dr. George B. Fowler, for many years visiting physician on the Fourth Medical Division at Bellevue Hospital, has resigned his position on the medical board. His successor will be appointed by the board of trustees of Bellevue and allied hospitals from members of the profession unconnected with any of the medical colleges, probably before the first of November. Applicants for the position should send their names to Mr. James K. Paulding, secretary of the board of trustees of Bellevue and allied hospitals, at the foot of East Twenty-sixth Street.

New York Skin and Cancer Hospital.—The governors of the New York Skin and Cancer Hospital announce that Dr. L. Duncan Bulkley will give a sixth series of clinical lectures on Diseases of the Skin in the out patient hall of the hospital on Wednesday afternoons, commencing November 2, 1904, at 4.15 o'clock. The course will be free to the medical profession. William C. Witter, chairman of executive committee.

St. Luke's Hospital.—The annual meeting of the board of managers of the society of St. Luke's Hospital was held on October 18th. The annual report of the board showed a total expenditure of $186,445 during the past year, $179,970 of which was for household expenses. A new pavilion. which is being erected at the expense of Mrs. Robert Graves, and having 65 rooms, is now well under way. The election of officers was postponed until the next monthly meeting.

Efforts to Incorporate New New York Hospitals.—The State Board of Charities was asked on October 8th to approve the certificate of incorporation of the Samaritan Hospital, of Brooklyn. The directors are: Dr. E. W. Skelton, J. G. Barney, Louis F. Bird, F. A. Brown, C. L. Young, L. B. Mann, Dr. L. F. Jackman, G. S. Francis, G. W. Baylis, O. R. Judd, Dr. A. F. Erdmann, Dr. A. H. Longstreet, F. J. Pender, A. G. Taylor, Mrs. A. E. Bowne, Mrs. Mary E. Wardell, of Brooklyn; Reverend H. A. Tupper, of Gramercy Park; and Eva E. Capron, of Central Park, Nassau County. The Maternity Aid Society of New York also sought to incorporate with these directors: Rosa Sommerfield, R. Neumann, Sarah Collins, Pauline Asch, Carrie Katz, and Rosalie Loewenthal, of Manhattan.

Long Island Throat Hospital and Eye Infirmary.—The fifteenth annual meeting of the Long Island Throat Hospital and Eye Infirmary was held on October 4th at No. 55 Willoughby Street. The president, C. T. Schondelmeier, M. D., occupied the chair. The report of the treasurer, William J. Wheeler, was read and showed a balance in the treasury of $1,316.98. The surgeon in chief, D. Morris Woolley, M. D., rendered his report, which in substance is as follows: There were treated during the last year 364 new cases, with 933 revisits, making a total of 1,297 cases treated. There were given 549 free prescriptions, besides having performed 44 operations upon the nose, throat, eye, and ear. The following officers were selected to serve for the ensuing year: C. T. Schondelmeier, M. D., president; Richard W. Preston, first vice-president; Adolph Vanrein, second vice-president; Judge A. H. Dailey, counsel; William J. Wheeler, treasurer; C. C. Mollenhauer, secretary. The following trustees were elected to serve for three years: Judge A. H. Dailey, George H. Fisher, L. Walter, John L. Baker, and Richard W. Preston.

A Woman Doctor Gets $1,000 from the Brooklyn Heights Railroad Company.—The Brooklyn Heights Railroad Company was beaten in the Supreme Court in Brooklyn on October 6th in a suit for damages caused by one of its conductors using abusive language to Dr. Elizabeth Gillispie, of 169 South Ninth Street. Dr. Gillispie was a passenger on one of the defendant's cars and gave the conductor a twenty-five cent piece to pay her fare. The conductor, it is said, failed to return the change, and when Dr. Gillispie asked the conductor for it he turned on her and said loud enough for the other passengers to hear, that there were a lot of women travelling on the cars who tried to beat the conductors "just as you are attempting to beat me now." Dr. Gillispie was compelled to leave the car without her change, and brought suit against the company. She demanded $3,000 damages. A jury in the Supreme Court gave her a verdict for 29 cents. She carried the case to the Appellate Division, which sustained the lower court. Then she carried the case to the Court of Appeals, which set aside the decision and verdict of the lower courts and ordered a new trial. The jury was out only a short time and brought in a verdict for $1,000 for the plaintiff.

Academy of Medicine.—The section on Genitourinary Diseases will meet on Wednesday evening, October 19th, at 8.15 p. m. Order: Presentation and Report of Cases. (*a*) Excision of Penis and Inguinal Glands (both sides) for Epithelioma; Nephrectomy for Tuberculosis; Perineal Prostatectomy, two cases, by Dr. F. Tilden Brown; (*b*) Suprapubic Prostatectomy, by Dr. Willy Meyer. Presentation of Specimens and Instruments. (*a*) Cancerous Prostate Removed by Suprapubic Incision, by Dr. Willy Meyer; (*b*) Latest Models of Brown's Ureterocystoscope and Nitze's Retrograde Cystoscope, by Dr. F. Tilden Brown. Papers: (*a*) The Cystoscope as an Aid in Genitourinary Surgery, by Dr. Follen Cabot. Discussion by Dr. Eugene Fuller, Dr. Howard Lilienthal, Dr. H. H. Morton, Dr. Frederick Bierhoff, Dr. F. Tilden Brown, Dr. F. M. Johnson (Boston), Dr. Ramon Guiteras, and Dr. Samuel Alexander; (*b*) Drainage of a Prostatic Abscess Through the Ischiorectal Fossa, by Dr. William C. Lusk. General discussion. James Pedersen, M. D., chairman. E. L. Keyes, Jr., M. D., secretary, 109 East Thirty-fourth Street.

The section on Orthopædic Surgery will meet on Friday evening, October 21st, at 8.15 p. m. Order: Case of Hallux Valgus; skiagraph showing condition before and after operation; Radiographs showing result of Congenital Epiphyseal Separation at Shoulder; and Result of Old Fracture of the Neck of the Femur, by Dr. Sinclair Tousey; presentation of other cases by members of the section. Discussion. Homer Gibney, M. D., chairman. S. A. Twinch, M. D., secretary, 598 Broad Street, Newark, N. J.

The section on Laryngology and Rhinology will meet on Wednesday evening, November 2nd, at 8.15 p. m. Order: Malignant Tumors of the Larynx, by Sir Felix Semon, of London, England. Discussion by Dr. Hartley, Dr. Gerster, Dr. Bodine, Dr. B. F. Curtis, Dr. Brewer, Dr. Delavan, Dr. Bosworth, and Dr. Wright. Francis J. Quinlan, M. D., chairman. Harmon Smith, M. D., secretary, 44 West Forty-ninth Street.

The New York State Medical Association, the consolidation of which with the Medical Society of the State of New York has been delayed for a year, owing to some trifling technicality in one of the bylaws of the latter, held its twenty-first annual meeting in the Academy of Medicine on October 17th, 18th, and 19th. Over two hundred members had registered before the close of the sessions, which were conducted with the usual quiet decorum. Only one precedent was broken, when a member in general session objected to the list of officers presented by the nominating committee, and, stating that it was advisable that a New York physician should be president for the coming year, suggested a substitute for the nomination of the committee, and carried his point, his candidate being elected. On Tuesday morning, there was a lively discussion concerning the committee on conference, which was finally discharged. Officers were elected as follows: President, Dr. J. Riddle Goffe, of New York; vice-president, Dr. Allen Arthur Jones, of Buffalo; secretary, Dr. Redfield, of Nyack; treasurer, Dr. F. A. Baldwin. Chairmen of committees: Public health, Dr. Louis Curtis Ager, of Brooklyn; legislation, Dr. E. Eliot Harris; library, Dr. Alexander Lambert; arrangements, Dr. Frederic William Loughran; publication, Dr. C. E. Denison; nominations, Dr. W. R. Townsend.

The programme of the meeting included the following papers:

William D. Granger, M. D., of Bronxville, Dysentery; William J. Meyer, M. D., of White Plains, Conservatism Versus Early Intervention in Simple Dystocia; Jane Lincoln Greeley, M. D., of Jamestown, An Old Specialty; George N. Jack, M. D., of Buffalo, Asthma and Its Relation to Environments—from a Blood Ætiological Standpoint; W. B. Reid, M. D., of Rome, A Typical Case of Appendicitis, Presenting Some Unusual Features, Found at Operation; A. H. Goelet, M. D., of New York city, Nephroptosis, Its Gynæcological Importance; Robert Coleman Kemp, of New York city, The Value of Transillumination of the Stomach as an Aid to Diagnosis. A New Method with Fluorescent Media; Herman Jarecky, of New York city, Salivary Calculi; Willy Meyer, M. D., of New York city, Ten Years' Experience with my Radical Operation for Carcinoma of the Breast; Douglas C. Moriarta, of Saratoga Springs, Municipal Sewage Disposal; J. F. Myers, M. D., Myers Hospital, of Sodus, Pelvis Infection, including Pyosalpinx and Pelvic Abscess; Norton Jerome Sands, of Port Chester, Prolonged Fasting as a Factor in the Treatment of Acute Diseases, with Special Reference to Affection of the Alimentary Canal; Heinrich Stern, M. D., of New York city, Concerning the Suppression of the Acetone Bodies in Diabetics; S. W. S. Toms, M. D., of Nyack, Ocular Reflexes, Their Influence on General Health; James J. Walsh, M. D., of New York city, Some Occupations and So Called Rheumatic Pains; Willis Eldridge King, M. D., of Newfield, Carcinoma Uteri; Necessity of Early Recognition, Etc.; James Hawley Burtenshaw, M. D., of New York city, Iodine in the Treatment of Postoperative Sepsis; C. E. Campbell, M. D., of Niagara Falls, Traumatic Tetanus; A. E. Woehnert, M. D., of Buffalo, Report of Twenty-five Cases of Pernicious Anæmia; James Tayloe Gwathmey, M. D., of New York city, The Value of Oxygen in Combination with the Different Anæsthetics in Common Use; Edward Munson, M. D., of Medina, The Brief Story of a Smallpox Epidemic; Charles A. Wall, M. D., of Buffalo, title announced; James E. King, M. D., of Buffalo, The Alexander Operation—Its Results, Immediate and Remote; Charles Stedman Bull, M. D., of New York city, A Group of Cases of Tumor of the Orbit, with Conclusions as to the Treatment of Such Cases; Charles Gilmer Kerley, M. D., of New York city, How and When to Use Antitoxine in Diphtheria; William T. Bull, M. D., and William B. Coley, M. D., of New York city, The Result of 1.400 Operations for the Radical Cure of Hernia in Children, Performed at the Hospital for the Ruptured and Crippled, from 1891 to 1904; John Parmenter, M. D., of Buffalo, title announced; John Erdmann, M. D., of New York city, Prostatectomy in Emergency Cases; Marshall Clinton, M. D., of Buffalo, Treatment of Infected Wounds of the Extremities; Louis Fischer, M. D., of New York city, A Study of the Heart in Scarlet Fever, with Remarks on the Temperature as a Guide in Estimating the Prognosis and the Development of Complications; Therapeutic Suggestions Based on Clinical Observations in Hospital and Private Practice.

Many of the members attended the meeting of the New York County Medical Association, held in Hosack Hall on Monday evening. On Tuesday evening, a large number of delegates joined the theatre party at the Garden Theatre. The president of the association extended an invitation to the members of the Medical Society of the State of New York to attend the meeting and to participate in its scientific discussions.

PHILADELPHIA.

The Health of the City.—The following contagious diseases have been reported for the week ending October 8th:

	Cases.	Deaths.
Malarial fever	12	0
Typhoid fever	88	5
Scarlet fever	65	2
Chickenpox	15	0
Diphtheria	66	9
Measles	2	0
Whooping cough	5	0
Tuberculosis of the lungs	76	39
Pneumonia	12	24
Erysipelas	2	0

The total death rate for the week was 380 in an estimated population of 1,408,154, corresponding to an annual death rate of 14.03 per 1,000 population. There have been the following deaths from other contagious diseases: Tuberculosis, other than tuberculosis of the lungs, 4; puerperal fever, 1; diarrhœa and enteritis under two years, 26. On Wednesday, October 5th, the maximum temperature recorded by the weather bureau was 71°, 11 degrees above the normal for this time of year.

Personal.—Dr. William L. Rodman has been elected visiting surgeon to the Philadelphia General Hospital and to the Jewish Hospital.

Dr. Charles A. Oliver has returned from Norway and Sweden, where he has been studying ocular leprosy.

Marriages.—Dr. Edwin A. Heller and Miss Blanche Kohn were married at the St. James Hotel. Dr. and Mrs. Heller will reside at 934 Franklin Street.

Dr. Joseph L. Rutter and Miss Elizabeth E. Shoe were married on October 11th.

Changes at St. Agnes's Hospital.—Dr. Leon Brinkmann has been elected visiting surgeon and Dr. George M. Dorrance has been elected visiting chief to the surgical outpatient department.

Butter vs. Oleomargarine.—A report has been circulated throughout the State that an effort would be made at the next session of the legislature to secure the repeal of the Grout bill, which imposes a tax of ten cents a pound on colored oleomargarine. The Pure Butter Protective Association of Pennsylvania intends to oppose this attempt vigorously.

Malpractitioner Again Accused.—Dr. William L. Palmer, who is in prison charged with causing the death of a woman by a criminal operation, was brought from jail on October 7th and charged with causing the death of an infant of Mrs. Lizzie Weyler.

Local Diphtheria Epidemics.—An epidemic of diphtheria in Chester, Pa., has resulted in the closure of one of the public schools by the board of health.

An epidemic of diphtheria at Monarch, near Connellsville, has caused the closure of the schools for a time.

Society Meetings for the Week Ending October 22nd.—Tuesday, Section on Ophthalmology, College of Physicians; Wednesday, Philadelphia County Medical Society (business meeting, private); Section on Otology, College of Physicians; Thursday, Section on Gynæcology, College of Physicians; Friday, University of Pennsylvania Medical Society.

Medical Society Meetings for the Week Ending October 29th.—Tuesday, Medicolegal Society; Northwest Medical Society; Neurological Society; Wednesday, Philadelphia County Medical Society; Thursday, Pathological Society; Friday, South Branch Philadelphia County Medical Society; Northern Medical Association.

Charitable Bequests.—By the will of Edward K. Tryon, Jr., the Academy of Natural Sciences, conchological section, receives $1,000; the Children's Aid Society, the Children's Country Week Association, the Pennsylvania Society to Protect Children from Cruelty, and the Home for Aged Couples at Perkiomen and Francis Streets, receive $500 each.

Removals.—Dr. Robley D. Newton, to 6137 Vine Street; Dr. J. H. W. Rhein, to 1732 Pine Street; Dr. P. S. Donnellan, to 1338 Walnut Street; Dr. G. Paul La Roque, to 256 South Sixteenth Street; Dr. Donnel Hughes, to 4003 Chestnut Street; Dr. J. Frank Wallis, to 327 Pine Street; Dr. David L. Edsall, to 1432 Pine Street; Dr. Charles A. Fife, to 1432 Pine Street.

Money for Jewish Charities.—In adjudicating the estate of Asher Hassler, who died in 1903, Judge Hanna in the Orphans' Court, on October 6th, awarded a balance of $5,861.93, which will be equally divided among five charities. The Home for Aged and Infirm Israelites at the Jewish Hospital, the Jewish Hospital, the Jewish Foster Home for Orphans, and the Jewish Maternity Association are four of the beneficiaries.

The Northern Medical Association.—The meeting of the Northern Medical Association, to be held on Friday, October 28th, will be devoted to a symposium on Bright's disease. Dr. William Egbert Robertson will discuss the ætiology and pathology, Dr. David Riesman will discuss the symptomatology, Dr. Frederick Krauss will speak of the ocular manifestations, Dr. Henry C. Paist will describe the medical treatment, and Dr. W. Hersey Thomas will consider the surgical treatment.

Donation Day at the Hospital of the University of Pennsylvania.—Donation day at the University Hospital occurred on October 13th. On that day the Board of Women Visitors gave a tea on the campus, and all departments of the hospital were open to visitors. Students of the medical department of the university acted as guides through the buildings.

Drug Clerks Ask Representation on State Pharmaceutical Board.—The Drug Clerks' Association has appointed a committee to wait upon Governor Pennypacker to ask him to appoint a member of that association to the State Pharmaceutical Examining Board. All the members of the board at present are owners of drug stores. Dr. J. A. Rosenheim, the president of the association, is chairman of the committee.

Presentation of an Ambulance to the Jewish Hospital.—On September 21st the citizens of Olney, a suburb of Philadelphia, presented an ambulance to the Jewish Hospital. The presentation speech was made by the Reverend William H. Wells, pastor of the Presbyterian Church of Olney, who read letters from officers of the Philadelphia and Reading Railway and the Philadelphia Rapid Transit Company, praising the work of the hospital. The ambulance was accepted by Judge Sulzberger, vice-president of the hospital.

Work of the Polyclinic Hospital for September.—During the month of September, 1,770 new cases were treated in the dispensaries of the Polyclinic Hospital, and 6,686 return visits were paid, making a total of 8,456 cases treated in the dispensaries during the month. In the receiving ward, 698 cases were treated during the same period and 71 patients were admitted to the wards of the hospital. Sixty-nine were discharged. During the month, 57 operations were performed under ether.

Physician Accused of Plotting to Rob.—Dr. Ralph Wimenitz, of 1515 South Fourth Street, has been arrested, charged with conspiracy and obtaining money by false representation, from the Philadelphia Rapid Transit Company. Dr. Wimenitz states that he was injured by a collision of cars belonging to the Rapid Transit Company. The company denies that he was injured by such an accident. Two other physicians and a lawyer are also implicated in the alleged conspiracy.

Physician Arrested for Fast Automobile Driving.—A prominent physician of one of the suburbs of Philadelphia was arrested recently for driving his automobile at a rate of one mile in one minute and fifty-five seconds. When tried before Burgess Bean, at Norristown, the physician pleaded guilty, but said that he was on the way to visit a sick woman, who died three days later, and that at the time of his arrest it was urgent that he should reach his patient as soon as possible. Sentence was deferred until the facts could be proved. On the 8th, the matter was taken up again and a fine of $20 and costs was imposed, Burgess Bean alleging that the doctor was on his way to dinner.

Deaths.—Dr. Isaac MacBride died at his home, 1761 Frankford Avenue, recently, at the age of 73 years. Dr. MacBride graduated from the medical department of the University of Pennsylvania in 1854, and consequently had been in practice for fifty years. He had been in poor health since he fell from a trolley car about two months ago.

Dr. Silas Updegrove died at his home, 116 North Seventeenth Street, at the age of 75 years. Dr. Updegrove graduated from the University of Pennsylvania in the class with Dr. MacBride. He was a surgeon in the army during the Civil war.

State Hospital for the Insane at Norristown.—The twenty-fifth annual report of the State Hospital for the Insane at Norristown, just issued, shows that 1,175 persons are under treatment. There were seventy-eight deaths during the year, the lowest death rate in fifteen years. The trustees of the hospital have reorganized by electing the following officers: President, Dr. Joseph Thomas, of Quakertown; secretary, J. M. Hackett, of Easton; treasurer, Frank L. Smith, of Norristown; steward, John L. West; resident physicians, Dr. D. D. Richardson and Dr. Mary M. Wolfe; assistant physician in women's department, Dr. Elizabeth C. Spencer.

Eye Department of the University of Pennsylvania.—The report of the eye department in the medical school of the University of Pennsylvania from September 1, 1902, to December 31, 1903, has just been issued in pamphlet form by Professor de Schweinitz and his associates. The report covers the period of sixteen months since the death of Dr. William F. Norris and the appointment of the present staff. During this time 2,909 new cases have been treated and 429 operations have been performed. The report contains a table of 66 operations for cataract, with the result and ultimate vision in each case. A copy of a blank used in reporting the ophthalmological findings in cases referred from the general wards is appended.

Medical Society Programmes.—The following was the programme of the meeting of the section on Ophthalmology of the College of Physicians, October 18th: Dr. William Campbell Posey: Parinaud's Conjunctivitis, with the Report of a Case; Dr. A. G. Thomson: A Case of Parinaud's Conjunctivitis, exhibition of patient; Dr. G. E. de Schweinitz and E. A. Shumway: Tuberculosis of the Eye, with Histological Examination of the Specimen; Dr. H. F. Hansell: A Note on Some Forms of Muscular Incoordination.

The following was the programme of the meeting of the section on Otology and Laryngology of the College of Physicians, October 19th: Dr. E. L. Vansant: Some Cases for Examination; Dr. G. Hudson Makuen: The Causes of Defects of Speech, with exhibition of patients.

Officers of the Pathological Society.—At the annual meeting of the Pathological Society of Philadelphia, held October 13th, the following officers were elected: Dr. Alfred Stengel, president; Dr. Joseph McFarland, Dr. William M. L. Coplin, Dr. Allen J. Smith, Dr. Mazyck P. Ravenel, vice-presidents; Dr. D. J. McCarthy, secretary; Dr. Thompson S. Westcott, treasurer; Dr. David L. Edsall, recorder; Dr. A. P. Francine, curator; Dr. Charles W. Burr, Dr. A. O. J. Kelly, Dr. David Riesman, Dr. David L. Edsall, Dr. J. Dutton Steele, business committee; Dr. William Pepper, Dr. A. G. Ellis, Dr. Guthrie McConnell, membership committee; Dr. William Egbert Robertson, Dr. J. Dutton Steele, Dr. George P. Müller, committee on morbid growths; Dr. David Riesman, Dr. A. O. J. Kelly, Dr. Joseph McFarland, publication committee.

The Chair of Nervous and Mental Diseases at the Medico-Chirurgical College.—Dr. William Pickett has been elected professor of nervous and mental diseases in the Medico-Chirurgical College. Dr. Pickett was borne in Meadville; graduated from Allegheny College in 1892, and from the Jefferson Medical College in 1895. Since his graduation, Dr. Pickett has served as resident physician, assistant physician in the insane department, registrar to the neurological department, and official examiner of the insane at the Philadelphia General Hospital. Among the contributions to the literature of neurology the credit of first describing the infraspinatus reflex belongs to Dr. Pickett.

Iron Bars in Life Preserver Cork.—The United States Grand Jury of the Circuit Court of New Jersey indicted four officers of the Nonpareil Cork Works, of Camden, for making cork blocks containing iron bars for use in life preservers. The cork in each life preserver sold for use on vessels inspected by the government inspectors must weigh six pounds, and the firm is accused of inserting an eight ounce iron bar in each block of cork used in making the life preserver, in order to bring it up to the required weight. The life preserver, when subjected to the water test, should be capable of supporting twenty-four pounds of weight in the water. When the assistant district attorney asked the members of the grand jury to test one of the life preservers by jumping overboard with it on all refused. They evidently thought the risk was too great, and the indictment followed.

Report of Howard Hospital.—The fiftieth annual report of the board of managers of the Howard Hospital and Infirmary for Incurables has just been received. There were 497 patients admitted to the wards and private rooms during the year, of whom 399 were discharged cured; 1,609 were treated in the accident ward. The following figures represent the number of new patients treated in the out patient department: General surgery and orthopædics, 2,216; general medicine, 2,103; diseases of women, 670; diseases of children, 780; diseases of the mind and nervous system, 266; diseases of the eye, 816; diseases of the throat, ear, and nose, 543; diseases of the skin, 477; total, 7,871. The report contains the announcement of the starting of a school for massage and electricity. Two courses of lectures of twelve weeks each are to be given, supplemented by practical work in the dispensary clinics.

Human and Bovine Tuberculosis.—The interim report of the Royal Commission appointed to inquire into the relations of human and animal tuberculosis was presented to parliament early in the summer. The report is short and merely contains a statement of the conclusions of the commission on the possibility of infecting bovine animals with tuberculous material from human sources, and whether or not a special and distinct disease could be produced by such material. The report says: "We have very carefully compared the disease thus set up in the bovine animal by material of human origin with that set up in the bovine animal by material of bovine origin, and so far we have found the one, both in its broad general features and in its finer histological details, to be identical with the other. We have so far failed to discover any character by which we could distinguish the one from the other; and our records contain accounts of the post mortem examinations of bovine animals infected with tuberculous material of human origin, which might be used as typical descriptions of ordinary bovine tuberculosis."

This is a most important and authoritative statement, and is exactly confirmatory of the position held for so long by the State Live Stock Sanitary Board of Pennsylvania. It is in direct refutation of one of Koch's positive statements, made at the time that the recent enthusiastic interest in tuberculosis was awakened.

The Pennsylvania State Nurses' Association has sent out the following circular letter: We wish to secure the support of the medical profession for the registration of nurses in this State. We enclose a copy of a resolution passed unanimously at the International Congress of Nurses in Buffalo, in 1901, covering the points desired, in which every State of the Union was well represented. Since this date New Zealand has passed a law covering the whole country, securing registration of nurses, and this has been found to work well. Australia has also secured registration in some States, and in England a royal commission is dealing with the same matter. In this country registration has been secured in five States: New Jersey, New York, Virginia, North Carolina, and Maryland. Indiana, Illinois, Ohio, Massachusetts, Connecticut, Michigan, and other States are working towards the same end. Information regarding the scope of this law, if passed, will be found in the enclosed pamphlet. (A reprint of a paper, by Maud Banfield, *American Medicine*, for June 18, 1904.) We do not desire Pennsylvania to be behind other States, and feel confident that if supported by the medical profession and influential members of the public, as we hope and expect to be, it will not fail of effect. Anna E. Brobson, president; Edith Madiera, Maud Banfield, Ada Payne, legislative committee. The resolution referred to is as follows: Whereas, The nursing of the sick is a matter closely affecting all classes of the community in every land; Whereas, To be efficient workers, nurses should be carefully educated in the important duties which are now allotted to them; Whereas, At the present time, there is no generally accepted term or standard of training, nor system of education or examination for nurses. in any country; Whereas, There is no method—except in South Africa—of enabling the public to discriminate easily between trained nurses and any ignorant persons who assume that title; and, Whereas, This is a fruitful source of injury to the sick and of discredit to the nursing profession; it is the opinion of this International Congress of Nurses, in general meeting assembled, that "It is the duty of the nursing profession of every country to work for suitable legislative enactments regulating the education of nurses and protecting the interests of the public, by securing State Examination and State Registration with the proper penalties for enforcing the same."

GENERAL

St. Luke's Hospital, of South Bethlehem, Pa.—Dr. Claude L. Wheeler, Managing Editor of the *New York Medical Journal and Philadelphia Medical Journal*, delivered the annual address at St. Luke's Hospital, South Bethlehem, Pa., on October 18th, his subject being Temperament.

Dr. J. B. McConnell, of Montreal, vice-dean of Bishop's College Medical Faculty, has been elected second vice-president of the College of Physicians and Surgeons, of the Province of Quebec.

Surgeon of the Minneapolis Soldiers' Home.—Dr. E. J. Davis, of Mankato, Minn., has been elected to the post of surgeon of the Soldiers' Home at Minneapolis, Minn., to succeed Dr. C. H. Norred, who, it is understood, retires on account of ill health.

The Mississippi Valley Medical Association, at its recent annual meeting at Cincinnati, elected Dr. Bransford Lewis, of St. Louis, Mo., president; Dr. Frank Norbury, of Jacksonville, Ill., first vice-president; Dr. J. S. Carstens, of Detroit, second vice-president; Dr. S. C. Stanton, of Chicago, treasurer; and Dr. Henry Enos Tuley, of Louisville, secretary. Indianapolis was selected as the next place of meeting.

Broome County, N. Y., Medical Society.—The annual meeting of the Broome County Medical Society was held in the grand jury room of the court house. Binghamton, on October 4th. The officers elected for the coming year are: Dr. Ray Beardsley, president; Dr. F. M. Miller, vice-president; Dr. Emily H. Wells, treasurer; Dr. Jack Killen, secretary; Dr. J. G. Orton, Dr. J. H. Chittenden, Dr. J. M. Farrington, and Dr. Frank W. Sears, of Binghamton, and Dr. Taylor, of Castle Creek, censors.

Lehigh Valley Railroad Surgeons' Association.—The following officers were elected at the last annual meeting of the Lehigh Valley Railroad Surgeons' Association: President, Dr. J. Watson Brown, of Ithaca; first vice-president, Dr. W. T. Williams, of Mount Carmel, Pa.; second vice-president, Dr. R. J. Menzie, of Caledonia; secretary and treasurer, Dr. J. G. Zern, of Lehighton, Pa.; delegates to the International Association of Railway Surgeons, Dr. J. B. Tweedle and Dr. William Taylor. The surgeons will meet next year at Glen Summit, Pa.

The New Augusta, Ga., Medical Society.—The Augusta Medical Society has been formed, with Dr. J. S. DeJarnette, formerly of Richmond, as president; Dr. M. P. Jones, of Churchville; Dr. A. C. Fox, of Waynesboro; Dr. W. S. Whitmore, of Mount Sidney; and Dr. J. W. Freed, of Hermitage, as vice-presidents; Dr. T. M. Parkins, of Staunton, as treasurer; and Dr. J. H. Tuttle, Dr. J. B. Catlett, and Dr. Benjamin Blackford, as censors. Appointments for scientific papers—Dr. M. J. Payne, Dr. F. M. Hanger, and Dr. R. S. Griffith, of Basic.

Cleveland General Hospital Training School.—The annual commencement exercises of the Training School for Nurses of the Cleveland General Hospital, No. 274 Woodland Avenue, were held on September 22nd. Following is the list of the nurses who graduated: Mrs. Annie Whitely, of Cleveland, Ohio; Miss Margaret Patten, of Drumbo, Ont.; Miss Elizabeth Tierney, of Scranton, Pa.; Miss Winnifred Jago, of Strongsville, Ohio; Miss Merle Allen, of Mt. Forest, Ont.; Miss Mamie Lewis, of Cleveland, Ohio; Miss Eva R. Malone, of Lodi, Ohio; Miss Florence E. Dunn, of Painesville, Ohio.

College of Physicians and Surgeons, Quebec, Can.—The election of the College of Physicians and Surgeons was held at Laval University, Quebec, Can., on September 28th, and there was a very large attendance of medical men from different parts of the province. The election resulted as follows: President, Dr. E. P. Lachapelle, of Montreal, reelected; first vice-president, Dr. D. Brochu, of Quebec; second vice-president, Dr. O'Connor, of Montreal, representative of the Bishop's College; registrar, Dr. A. R. Marsolais, of Montreal; treasurer, Dr. A. Jobin, of Quebec, reelected; secretary, Dr. P. O. Fauché.

Bethesda Hospital, Chicago.—Dr. O. E. Wald, who has been appointed head physician and surgeon at the Bethesda Hospital in Belden Court, is a graduate of the University of Illinois, of the College of Physicians and Surgeons, and of Johns Hopkins University. He was formerly connected with the Augustana Hospital. The Bethesda Hospital but recently received its charter. Its president is F. Frank Henning, who founded the German Hospital, and it is conducted by the German Bethesda Deaconess Society. The German-American Hospital was founded in this building in 1896 with the late Professor Christian Fenger as chief surgeon.

To Move Against Free Lunches in Montreal.—Dr. Laberge, medical health officer of Montreal, Can., has announced that he would bring before the board of health a recommendation to inspect all the free lunch counters. He said he had received a complaint that hundreds of people used the same knife, fork, and spoon at such counters and that there was good reason for thinking disease germs were spread in that way. The medical health officer, speaking of the communication, said he thought it was a most timely notification to the health officials of the city that an inspection ought to be made of free lunch counters. He added that he had concluded to bring the whole matter before the attention of the health committee at its next meeting.

The Congress of Military Surgeons.—At the session of the International Congress of Military Surgeons, held in St. Louis recently, Detroit was selected as the meeting place for the next annual convention, and the following officers were elected: President, Surgeon General Walter Wyman, of the United States Public Health and Marine Hospital Service, Washington; vice-presidents, Major Albert H. Griggs, of the National Guard of the State of New York, Buffalo; Brigadier General Robert M. O'Reilly, of the United States Army, Washington; Surgeon General P. M. Rixey, of the United States Navy, Washington; secretary, Major James E. Pitcher, of the United States Volunteers, Carlisle Pa.; and treasurer, Major Herbert A. Arnold, of the National Guard of Pennsylvania, Ardmore, Pa.

License to Practice in Minnesota.—Licenses to practice medicine in the State of Minnesota have recently been issued by the State Board of Examiners to the following applicants: Dr. Ida A. Mackeen, Dr. E. M. Ransom, Dr. L. A. Campbell, Dr. A. S. Hamilton, Dr. G. L. Hagen, Dr. P. C. Davison of Minneapolis; Dr. E. L. Maurer, Dr. C. D. Martin, Dr. T. W. Stumm, of St. Paul; Dr. I. H. Kiesling, of Fergus Falls; Dr. K. J. Lee, of Renville; Dr. G. G. Herm, of Scarville, Iowa; Dr. J. Biedermann, of Stillwater; Dr. E. A. Westrom, of Chicago, Ill.; Dr. F. W. Cottom, of Dayton, Ohio; Dr. J. N. Lalonde, of Torah; Dr. F. J. Blackmar, of Albert Lea; Dr. I. F. Seeley, of Faribault; Dr. A. C. Peterson, of Murdock; Dr. J. D. Lyon, of Chester, Iowa; Dr. O. A. Oredson, of Duluth; Dr. William H. Newmann, of St. Charles; Dr. H. D. Dudley, of Winona; Dr. W. H. Witherstine, of Rochester.

Physicians Newly Registered in Massachusetts.—There were sixty-seven candidates who successfully passed the recent examinations before the Massachusetts State Board of Registration in Medicine. In all ninety were examined, and about twenty-five per cent. failed to make the necessary showing.

Maurice L. Slutskin, Joseph A. Robinson, Dale E. Brown, Joseph Prevett, Harry W. Trask, William Pariseau, William F. Lemaire, Harry M. Crossland, Arthur P. Janes, Charles M. Quimby, Agnes Fraser, James E. Hurley, John A. Ceconi, Frederic L. Fraser, Dean S. Luce, John S. MacQuaid, David N. Bloom, Walter R. Register, Robert D. Emery, Ernest A. Dyer, Dana F. Downing, Dean S. Drake, Julia R. Youngman, Louis H. Landry, John J. Donoghue, Charles P. Gray, Fred G. Bushold, Peter Haigis, Lester E. Butler, Herbert H. Powers, Wilfrid J. Biron, Henry H. Dearborn, Lewis F. McCarthy, Harry J. Inglis, William H. H. Gray, Appleton W. Smith, Herbert Cooper, Zelly A. Banoff, Fayette E. Read, Richard F. Barrett, Carl F. Muller, Walter C. Wilber, John C. Rogers, Jr., Charles V. Pease, Dwight F. Willis, John J. Loughlin, Ruth Barker, George H. Jackson, Fred J. La Fleur, Marion Cowan, Ralph S. Carr, Alton J. Choate, William G. Lee, John T. Edson, Charles B. Sullivan, Ned C. Stiles, Frederick L. Good, Bernard F. McGaffigan, Daniel J. Buckley, Joseph L. Ameno, Walter A. Hosley, Clarence H. Staples, Thomas N. Stone, George F. Thomson, Edward L. D. Turner, Mark H. Rogers, Louise D. Holmes.

The Nathan Littauer Hospital.—The gift of Mr. and Mrs. Frederick T. Proctor to St. Luke's Hospital in Utica was recently referred to as "the largest single gift ever made to philanthropic and charitable purposes in that part of the State." Dr. W. C. Wood, gynæcologist to the Nathan Littauer Hospital, of Gloversville, calls our attention to the fact that ten years ago Mr. Lucius N. Littauer built and gave to the city of Gloversville a hospital costing over $50,000, and is now building an addition costing $35,000 more, making a total of $85,000 in hospital buildings for a city of 20,000 people, or $4.50 for each inhabitant. The usefulness of the institution is attested by the fact that it is hard to keep empty beds in reserve for emergency cases. When the addition is finished, the Nathan Littauer Hospital will have 45 beds for patients, an obstetrical ward and operating room, a children's ward, male and female wards, general operating room, lecture and study rooms, and an abundance of private rooms. In addition, Mr. Littauer has donated several thousand dollars for the purchase of needed apparatus, furnishings, repairs, and deficiencies, making a total gift to the city of Gloversville of about $90,000.

Mrs. Elizabeth Green Kelly, of Chicago, Leaves $300,000 to Charity.—By the will of Mrs. Elizabeth Green Kelly, who died on September 24th, about $300,000 is left to charitable and educational institutions. Mrs. Kelly had an agreement with her husband, Hiram Kelly, who died fifteen years ago, that each would take half of the fortune and make bequests as he or she saw fit, but the fortune was to remain intact until both were dead, when the benefactions as planned by each would become effective. The will will not be read for two or three days, but it is understood the estate aggregates nearly $600 000. Some of the most important bequests are believed to be: University of Chicago, from investments already made and from property that will revert to it, $100,000; Home for Incurables, $60,000; Chicago Orphan Asylum, $60,000; Presbyterian Hospital, $25,000; Chicago Public Library, $20,000; Training School for Nurses, in Syracuse, N. Y., $30,000. Mrs. Kelly was interested in the library in Lafayette, N. Y., where she was born, and it is supposed her will provides for enlarging it. She is reported to have made provision for extension of the researches of the Historical Society of Onondaga County.

The American Physicians at Panama.—While the work of constructing the Panama Canal is going on every attention will be paid by the isthmian canal commission to the health of those employed in doing the work. More than $50,000 per annum has already been set aside for this purpose to be used under the direction of Colonel W. C. Gorgas, chief sanitary officer. The following is the official list of medical officers in the employ of the canal commission:

Colonel W. C. Gorgas, United States Army, chief sanitary officer, $7,500; Dr. J. W. Ross, United States Navy, director of hospitals, $7,000; Major L. A. La Garde, United States Army, superintendent of canal hospital, $6,000; Dr. H. R. Carter, Marine Hospital Service, chief quarantine officer, $5,750; Surgeon Spratling, United States Navy, charge of sanitary work, $5,250; Dr. A. B. Herrick, pathologist and clinician, $4,000; Dr. A. N. Stark, United States Army, physician, $3,600; Dr. H. A. Stansfield, United States Navy, charge of laboratory, Colon, $3,300; Dr. A. I. Kendall, charge laboratory, Colon, $3,000; J. A. Le Prince, sanitary officer, $3,000; Dr. T. C. Lyster, United States Army, executive officer, $2,400; Dr. Lewis Balch, health officer, $3,000; Dr. E. S. Wheeler, assistant physician, $2,400; Dr. W. F. Smith, assistant physician, $2,400; Dr. T. B. Wingo, assistant physician, $2,400; Dr. D. Lacroisade, assistant physician, $2,400; Dr. Lloyd Noland, assistant physician, $1,500.

Dr. J. C. Perry, Dr. C. C. Pierce, and Dr. F. W. Ames have also been appointed members of the medical staff, but their salaries have not been determined. They are members of the medical department of the army, and have been ordered to report to the army officer in charge of affairs in Panama.

Statement of Mortality in Chicago, Ill., for the Week Ending October 15, 1904, compared with the preceding week and with the corresponding week of 1903. Death rates computed on United States Census Bureau's estimated midyear populations of 1,932,315 for 1904 and of 1,873,880 for 1903:

	Oct. 15, 1904.	Oct. 8, 1904.	Oct. 17, 1903.
Total deaths—all causes	424	410	459
Annual death rate per 1,000	11.46	11.08	12.75
By sexes—			
Males	231	229	259
Females	193	181	200
By ages—			
Under 1 year	105	102	102
Between 1 and 5 years	35	39	41
Over 60 years	85	67	87
Important causes of death—			
Acute intestinal diseases	47	62	51
Apoplexy	16	7	17
Bright's disease	34	26	28
Bronchitis	17	6	8
Consumption	62	49	45
Cancer	15	25	26
Convulsions	10	9	8
Diphtheria	4	6	20
Heart diseases	27	30	35
Influenza	1	..	..
Nervous diseases	12	20	26
Pneumonia	35	27	38
Scarlet fever	1	..	3
Suicide	5	8	8
Typhoid fever	7	11	16
Violence (other than suicide)	18	22	28
Whooping cough	6	3	1
All other causes	107	99	101

The 424 deaths from all causes reported during the week are 14 more than the total for the week previous. Pulmonary consumption, 62, shows the greatest increase, 13, followed by bronchitis, 11 more, apoplexy, 9 more, Bright's disease and pneumonia, each 8 more. On the other hand, the results of the continuous good sanitary quality of the public water supply are shown in 15 fewer deaths from the acute intestinal diseases and 4 fewer from typhoid fever. The deaths from consumption form 14.6 per cent. of the total deaths from all causes, an unusually high proportion, but those from pneumonia are only 8.4 per cent. of the total. In New York city for the same period 157 consumption deaths are only 12.7 per cent. of the total 1,232 deaths from all causes and the 129 pneumonias are 10.4 per cent. of the total. The hospital population shows a slight increase—from 1,807 the week before to 1,832, in the seven principal institutions. Typhoid fever patients are reduced from 87 to 76 and pneumonia increased from 10 to 16. Some institutions report an increase of appendicitis cases—in one fully 20 per cent. of the patients are of operative appendicitis.

Pith of Current Literature.

PRESSE MEDICALE.

September 28, 1904.

1. The Therapeutical Indications of Kefyr, By HAYEM.
2. Radiology in Internal Medicine, By HOLZKNECHT.

1. **Kefyr.**—Hayem states that kefyr is not a mere food, but possesses valuable medicinal properties. It is partly disgested, the casein of milk being precipitated in fine granules by the formation of lactic acid; this acid, too, has a slight bactericidal action in the intestine, and is valuable in certain diarrhœas, that of typhoid fever, for example. The carbonic acid of kefyr diminishes gastric excitability and is slightly exhilarating. Hayem prescribes kefyr in gastric cases with hypopepsia or apepsia, in parenchymatous gastritis, in gastric cancer, and in cachexia from tuberculosis, anæmia, Bright's disease, etc. There are three strengths of kefyr according to the length of time it has fermented, one, two, or three days. The weakest is laxative, the strongest constipating, and the second strength is Hayem's favorite. Regarded simply as a food, kefyr is inferior to unaltered milk.

October 1, 1904.

1. The Delirium of Inanition, By TOUPET and LEBRET.
2. The Treatment of Enuresis by the Epidural Method, By CANTAS.
3. Inequality of the Pupils in Diseases of the Lungs and Pleuræ, By DEHÉRAIN.

1. **Delirium of Inanition.**—Toupet and Lebret state that this delirium has been known among the shipwrecked and in pregnant woman attacked with uncontrollable vomiting. Their case occurred in a patient with gastric ulcer. After apparently improving under milk and vichy, kefyr, and ice on the epigastrium, the patient died suddenly, from some unknown cause. But few cases of this delirium are on record.

SEMAINE MEDICALE.

September 14, 1904.

Tuberculous Bacteriæmia, By JOUSSET.

Tuberculous Bacteriæmia.—Jousset summarizes the studies that have been made of this subject and states that further investigations along the same lines are imperative. Not to speak of its theoretical importance in the question of the hæmatogenous origin of acute tuberculosis, the study will be valuable in aiding the diagnosis of deep seated tuberculosis and of mild cases. Perhaps it will furnish the key to many problems of the pathology of infection, especially in children.

September 21, 1904.

Dermoid Cysts of the Ovary; Evolution and Complications, By LEJARS.

Dermoid Cysts.—Lejars discusses particularly the forms of dermoid cysts, suppurating, and opening into the bladder. Many occur in young girls and, in all cases when the patients are operated upon before the menopause, Lejars urges care to allow any trace of unaffected ovarian tissue to remain. He removes the appendix as a routine procedure in these operations. In cases of double ovarian cyst, it is rare that a small portion of healthy tissue is not found.

LYON MEDICAL.

September 11, 1904.

1. Perinæorrhaphy with Myorrhaphy of the Levatores Ani, By DELORE and JACOD.
2. Interstitial Nephritis with Metrorrhagia, By VIOLET.

1. **Perinæorrhaphy.**—Delore and Jacod report 4 cases in which they operated, always suturing together the internal surfaces of the levatores ani and removing a portion of the lax vaginal wall. The 4 results were good, although in the fourth case they had to deal with an infected wound.

2. **Metrorrhagia.**—Violet says that, apart from the metrorrhagia produced by uterine causes, abortion, prolapsus, polypi and other tumors, retained placenta, there is a flow produced by disease of the heart, lungs, or kidneys, interstitial nephritis being a not uncommon and a most insidious cause. Three cases are described and attention is drawn to the fact that nephritis may act as a predisposing cause and that a slight local accident may prove the uterine vessels to be the locus minoris resistentiæ.

September 18, 1904.

1. Some Cases of Genital Tuberculosis in Women (*To be continued*), By JAMIN and VIOLET.
2. Psychoses of Thyreoid Origin, and Their Surgical Treatment, By LATARJET.

1. **Genital Tuberculosis in Women.**—Jamin and Violet classify genital tuberculosis in women as (a) tuberculosis of the vulva, vagina, and cervix, and (b), tuberculosis of the fundus, tubes, and ovaries. Six cases of the latter form are detailed in this part of the paper. The writers think that when the disease is limited to the tubes and ovaries, it often develops without arousing suspicion.

2. **Psychoses of Thyreoid Origin.**—Latarjet lays great stress on the surgical treatment of these psychoses, stating that medical treatment by hygienic measures, drugs, etc., loses valuable time. Psychic disturbance is as much an indication for operation as the mechanical reasons, compression of the trachea or other neighboring organs. One remarkable case is detailed in a woman who had a small tumor on the left half of the thyreoid gland, and whose grave mental symptoms were entirely removed four days after removal of the tumor. Free drainage should be stimulated after these operations and sutures should not be immediately applied. Latarjet thinks a careful examination should be made of the thyreoid gland of all patients who begin to exhibit untoward mental symptoms.

GAZZETTA DEGLI OSPEDALI E DELLE CLINICHE.

August 21, 1904.

1. Two Cases of Aortic Insufficiency Due to Traumatism, By CARLO TREVISANELLA.
2. On an Epidemic of Cerebrospinal Meningitis, By ALFREDO PEREZ.
3. Four Cases of Traumatic Tetanus Treated by Bacelli's Method, By CARLO MASTRI.
4. Contribution to the Treatment of Acute Peritonitis, By ARTURO MONTINI.
5. The Treatment of Acute Lobar Pneumonia by Means of Toxic Doses of Digitalis, By MATTEO CAPUANA.
6. Injections of Sodium Salicylate Into the Joints in Ordinary Acute Rheumatism, By ALFREDO SANTINI.

1. **Aortic Insufficiency Due to Injury.**—In the two cases reported by Trevisanella the aortic insufficiency came on so suddenly after traumatism that the author is inclined to attribute the origin of the affection to the injuries received by the patients. The first patient was a longshoreman in Genoa, who received a severe blow on the chest while working and noted the symptoms of palpitation, etc., soon afterwards. In the second case the author thinks that the beginning of the trouble may be traced to an exaggerated movement which the patient made during a violent sexual intercourse (!). Immediately, he was seized with severe pain over the heart, etc. A sudden increase of pressure constitutes an internal traumatism, so far as the author is concerned, and therefore the second case was also of traumatic origin.

3. **Tetanus Treated with Bacelli's Method.**—In four cases of traumatic tetanus, Mastri obtained good results with Bacelli's method of injecting carbolic acid. The maximum daily dose of the drug was seventy centigrammes, and the maximum dose for the entire course of treatment did not exceed 13.5 grammes. During the treatment sodium sulphate was also given with the object of forming innocuous sulphocarbolates and thus securing a less irritant product for the eliminative organs. The carbolic acid was simply dissolved in sterilized oil. Neither morphine, chloral, nor other depressants were employed, in order to give full value to the treatment of Bacelli and the author is enthusiastic as to the efficiency of this method of combating tetanus.

4. **Acute Peritonitis.** — Montini pleads for earlier operations in acute peritonitis, and declares that laparotomy should not be regarded, as it frequently still is, as a last resort. The chief cause of the mortality in these cases is, that the infection has spread too far by the time the patient comes under the knife.

5. **Toxic Doses of Digitalis in Pneumonia.**—Capuana's article is a brilliant review of the therapeutics of lobar pneumonia, in which prominence is given to the method of Petrescu, of Bucharest, who advocated toxic doses of digitalis in the treatment of this disease. Lépine, Mosius, Finkel, etc., have confirmed the experiments of Petrescu, and the objection that the latter author employed this treatment only in young and vigorous soldiers, is no longer valid. Still the method is not generally in vogue. Landouzy supposed that digitalis had a bactericidal effect on the pneumococcus, but Lucatella, of Maragliano's clinic, showed that it protected against the toxine of the pneumococcus. The size of the dose tolerated is, it appears, directly in proportion to the severity of the infection. The explanation for this may be twofold. Either the digitalis is not completely absorbed in pneumonia, owing to the catarrhal condition of the affected organs, or else the drug spends most of its energy in neutralizing the toxine of the disease. In virtue of the triple properties, antitoxic, antibacterial, and cardiostimulating, digitalis in toxic doses offers the best method of treating pneumonia at present known. In thirty-six cases which came under his observation during the past year, the author used this method with excellent results. In a few he employed, in addition to digitalis in toxic doses, also some symptomatic measures, such as hydrotherapeutic methods for the fever, etc. The great remedy, however, was digitalis. He believes the Petrescu's method will some day be recognized as the most ingenious idea in the treatment of pneumonia that has yet been offered.

August 28, 1904.

1. Clinical Notes on an Epidemic of Scarlet Fever,
By NICOLO MUGLIA.
2. The Ætiology of Whooping Cough,
By GERMANO CORSINI.
3. Contribution to the Treatment of Puerperal Infections bv Means of Corrosive Sublimate Injections,
By A. LANNI.

1. **Scarlet Fever.**—Muglia, as the result of an observation of numerous cases of scarlatina occurring in a local epidemic, concludes that the various types that the disease may assume should be classified as follows: 1. Forms depending for their clinical course upon the course of the infection: To this group of cases belong the regular or typical forms; the rudimentary forms with rapid and malignant course, and the cases which last a considerable time. 2. Forms depending for their irregularity upon the exanthem. Here are included the cases of scarlet fever without exanthem, but characteristic on account of the presence of angina and nephritis; revulsive scarlet fever, according to Jaccoud; and the variegated forms—papular, miliary, petechial, hæmorrhagic, and pruriginous. 3. Forms depending upon anomalies in the course of the fever, including the hyperpyretic cases.

As regards the ætiology of scarlet fever, it is probable that the disease is caused by a streptococcus which resembles in many respects that of erysipelas. This is also proved by the appearance of erysipelas in two cases immediately after scarlet fever. Injuries, shock, emotions, etc., may increase the tendency to eruption by rendering the organism less resistant. In a child, a sudden fright was followed by rise of temperature and the eruption of scarlet fever. The frequency of the pulse and the absence of the eye and nose symptoms are valuable signs in differentiating from measles and German measles at the outset.

3. **Corrosive Sublimate Injections in Puerperal Sepsis.**—Lanni reports a cure of puerperal sepsis in one case in which he employed, in addition to local treatment, consisting of uterine lavage with bichloride solutions, injections into the basilic vein of corrosive sublimate in doses of from two to three milligrammes. The patient was curetted twice. Milk diet, and the use of quinine salts completed the treatment.

September 4, 1904.

1. Primary Carcinoma of the Spleen,
By GUIDO BACELLI.
2. Clinical and Bacteriological Asepsis,
By DARIO MARAGLIANO.
3. Contribution to the Pathogenesis of the Neurasthenia Observed in Some Cases of Movable Kidneys,
By G. RUGGI.

2. **Surgical Versus Bacteriological Asepsis.**—Dario Maragliano (of the Berlin Augusta Hospital) describes a series of experiments which he conducted upon aseptic wounds that healed by first intention, which led him to the conclusion that there is such a thing as surgical asepsis which need not be exactly bacteriological or absolute. He wiped the edges of thirty operative wounds with sterile cotton pledgets, and made cultures of the material thus collected. In twenty-nine cases out of thirty he found that there were some germs on the cotton, in spite of the fact that the operations had been aseptic, and that the wounds had healed perfectly by primary union. In the one case found to be sterile, he thinks that too little material had been obtained. He declares, therefore, that all surgical wounds contain bacteria. The germs observed include the *Staphylococcus aureus*, and in one instance the *Bacillus coli;* but in some cases only *sarcinæ* from the air could be found.

The method of preparing hands and operative field for operation which is used by Krause, of Berlin, is the best and simplest, and gives perfect results, provided the surgeon does not make any mistakes during the operation, in handling non-aseptic objects. This method consists in washing the hands in running hot water for fifteen minutes, with alkaline soap and a sterile brush. Mechanical disinfection is the best of all methods. Then follows immersion in 1 to 1000 bichloride solution. Alcohol is useless. The skin of the patient is scrubbed also with soap and hot water and with a glove of cocoa fibres; then washed with ether, bichloride solution, and sterile water. It is not in complicated methods, or in wearing gloves, masks, or caps that the surgeon can hope to find perfect asepsis. Krause never wears gloves, caps, or masks, and yet his results are as good as those of the surgeons who do. The bacteria that fall upon a wound from the surgeon's beard are of no importance, neither are those from the air of the operating room, but the whole secret of surgical asepsis, after the proper preparation of materials, hands, etc., is in training the personnel of the operating room, so that no one will make any mistakes in handling instruments, etc.

3. **Origin of Neurasthenia in Movable Kidney.**—Ruggi announces the following theory of the origin of neurasthenic symptoms in persons suffering from movable kidneys: The kidneys secrete an internal secretion just like the ovaries and other organs. A perfect equilibrium of all internal secretions is necessary for the maintenance of perfect health. When there is an excess of any one organ's internal secretion, or a deficiency, this equilibrium is interfered with, and neurasthenic, trophic, and psychical symptoms develop. This takes place after double ovariotomy, for example. When the kidneys are movable, the internal secretion of this organ is greater than normal. This accounts for the neurasthenia which is observed in patients with movable kidneys. Ruggi reports the case of a woman with dysmenorrhœa who had been operated on by another surgeon for ovarian trouble, and one of whose ovaries had been removed. She developed neurasthenia, inasmuch as she had also a movable kidney. The ovarian secretion, according to the author, is antagonistic to the renal, and when the ovary was removed the renal secretion, being already increased by the mobility of the kidney, gained the ascendance, and neurasthenia developed. He performed nephropexy, and the neurasthenic symptoms vanished.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

October 15, 1904.

1. Ætiology of Cholecystitis and Cholelithiasis, By Walter L. Bierring.
2. The Relation of Cholelithiasis to Disease of the Pancreas, By Eugene L. Opie.
3. Diseases of the Gallbladder and Bile Ducts in Relation to Diseases of the Gastrointestinal Tract, By Bertram W. Sippy.
4. Diagnosis of Cholecystitis and Cholelithiasis, By Parker Syms.
5. The Treatment of Cholecystitis and Cholelithiasis, By Lucius W. Hotchkiss.
6. Poisoning by Wood Alcohol, Cases of Death and Blindness from Columbian Spirits and Other Methylated Preparations (*Continued*), By Frank Buller, and Casey A. Wood.
7. A Simple Method of Cystoscopy, By M. C. Millet.
8. Bone Cysts. A Consideration of the Benign and Adamantine Dentigerous Cysts of the Jaw and Benign Cysts of the Long Pipe Bones, By Joseph C. Bloodgood.
9. Experimentally Produced Genuine Epethelial Metaplasia in the Stomach, and the Relations of Epithelial Metaplasia with Carcinoma as Demonstrated by Cases Reported in the Literature, By Gustav Fütterer.
10. Lithæmic Nasopharyngitis Due to Systemic Disturbance, By J. H. Stucky.
11. Spontaneous Tonsillar Hæmorrhage, By Lewis S. Sommers.

1. See this *Journal*, Vol. LXXX, page 41.

2. **Cholelithiasis and Disease of the Pancreas.**—Opie concludes that whenever a biliary calculus passes through the diverticulum of Vater into the duodenum the pancreas is subjected to the danger of injury, the character and extent of which is dependent on the size of the calculus and the duration of its impaction.

3 **and** 4. See this *Journal*, Vol. LXXX, page 41.

5. See this *Journal*, Vol. LXXX, page 42.

7. **Cystoscopy.**—Millet recommends the use of an air inflating cystoscope. Instead of using air for dilating the bladder the author uses water. He claims that by this modification even very irritable and bleeding bladders may be examined.

8. **Bone Cysts.**—Bloodgood asserts that patients who recover from sarcoma of either upper or lower jaw, after resection, suffer from a type of sarcoma essentially different from the ordinary fatal type. In a general way the same assertion may be made with regard to sarcoma of the long bones. In the more malignant types metastasis occurs early, and it is for this reason that many operations give no permanent relief. The author supports his views by citing numerous cases that have been treated at the Johns Hopkins Hospital.

9. **Metaplasia in the Stomach.**—Fütterer reports in detail his experiments which were conducted upon rabbits. In all ninety-four animals were subjected to operation. In six cases he succeeded in producing an epithelial metaplasia by irritating the mucous membrane of the stomach.

BOSTON MEDICAL AND SURGICAL JOURNAL.

October 13, 1904.

1. The Extraction of Foreign Bodies from the Bronchi, By A. Coolidge, Jr.
2. A Case of Malignant Endocarditis, By J. F. Alleyne Adams.
3. On "Variant" Infections: with Report of Cases, By Thomas Horace Evans.
4. Gastric Ulcer in Children, By Elbridge G. Cutler.
5. Examination of Pleural Fluids with Reference to Their Ætiology and Diagnostic Value, By Percy Musgrave.

1. **Foreign Bodies in the Bronchi.**—Coolidge reports in detail the histories of four cases of foreign bodies in the bronchi in which he has operated successfully. In three cases he resorted to tracheotomy, in one case he operated with the aid of Killian's bronchoscope through the natural passages. The author's experience leads him to favor operative intervention for the removal of inspired foreign bodies, and inclines him to attempt their removal through the natural passages in the larger number of cases. This method demands that there be at hand not only the proper bronchoscope, but what is equally important, proper instruments for working through the tube after it is in place. For the lower operation, almost any hollow tube of proper calibre, and long slender forceps will carry the operator well into the primary bronchi. The introduction of the bronchoscope after previous tracheotomy presents no difficulties. A general anæsthetic is not necessary nor advisable if a tracheal opening already exists, and in many cases the tracheotomy might well be done with cocaine.

4. **Gastric Ulcer in Children.**—Cutler concludes in this number a rather extensive analytical study of gastric ulcer in children. In all he has been able to collect records of twenty-nine cases of the affection. The histories of all these cases are given in detail. The preponderance of the female is remarkable. Of the twenty-nine cases eighteen were in females, five were in males, and in six the sex is not stated. Of the acute cases, thirteen were in females, two were in males, three not stated. Of the chronic cases, five were in females, three were in males, three not stated. Of the six cases occurring soon after birth, the youngest patient was thirty hours old, and the others were two, five, seven, eleven, and fifteen days, respectively. There were eight cases in children less than seven years of age, and nine cases in those between eight and thirteen.

5. **Cytodiagnosis of Pleural Fluids.**—Musgrave concludes in this issue an elaborate paper on the examination of pleural fluids. He concludes that a routine examination of pleural fluids will not only enable us to study the question of pleurisy with effusion with reference to ætiology and diagnosis, but will establish a basis upon which accurate prognostic statistics can subsequently be based. Cytodiagnosis is the only practical method by which such examinations can be made. While this method is not accurate in every case, it is as nearly so as are most clinical methods and it is sufficiently accurate, especially when taken in conjunction with the history and bedside examination, and the physical and chemical properties of the fluid itself, to justify its use as a routine procedure.

MEDICAL NEWS.

October 15, 1904.

1. The Early Physical Signs of Pulmonary Tuberculosis, By Lawrason Brown.
2. Are the Insane Responsible for Criminal Acts? By John Punton.
3. On the Mechanism of Exophthalmos, By W. G. MacCallum, and W. B. Cornell.
4. Some Notes on a Case of Erythromelalgia with Treatment, By I. W. Voorhees.
5. A Factor in the Causation of Emaciation in Tuberculosis of the Lungs, By Harold M. Hays.
6. The Silver Salts in Gonorrhœa, By William L. Baum.
7. Urgent Adenectomy During the Progress of a Pneumonia, By H. Jarecky.

1. **The Early Signs of Tuberculosis.**—Brown bases his paper on the study of 201 incipient cases of tuberculosis. He reviews in order all the early signs and symptoms of the disease and attempts to assign to each its absolute value from the diagnostic standpoint. We cannot reproduce the author's twenty-five formal conclusions in full, and so note only the following points: (1) Absence of physical signs in the chest is no better proof that a patient has not pulmonary tuberculosis than absence of tubercle bacilli in the sputum. (2) Auscultation is by far the most important method of physical exploration in incipient tuberculosis. (3) Direct percussion upon the clavicle is not of very much importance. (4) In the 201 cases studied the site of the primary lesion was most frequently above the clavicle, then in the suprascapular area and subclavicular fossa. In sixty-one per cent. the disease was on the right side.

2. **Are the Insane Responsible?**—Punton holds that " a man who yields to the dictates of desire is vicious, whether he be insane or not; but a man who acts in response to the dictates of a diseased judgment is conscientious whether he be insane or not. The insane may therefore be divided into two classes—those dominated by desire and those dominated by diseased judgment. The former constitute the vicious insane, the latter the conscientious. The one is responsible, the other irresponsible." He therefore holds that there is a certain percentage of the insane who should be punished for their shortcomings, the punishments being adjusted to fit the individual rather than the crime.

3. **Exophthalmos.**—MacCallum and Cornell believe that the best way to finally arrive at an understanding of exophthalmic goitre is by adequately explaining its symptoms. They have conducted some experiments tending to explain

the protrusion of the eye balls. Since, however, it is impossible to assert that the exophthalmos that one has produced experimentally is the same as that seen in Graves's disease, the authors have contented themselves with the study of the phenomenon as produced in animals by disturbance of the circulation or by the stimulation of the cervical sympathetic. From their experiments they conclude that: (1) Obstruction to the outflow of blood from the veins of the orbit produces at once exophthalmos, which is relieved by the establishment of a collateral circulation. This process, however, is completed so slowly that in the meantime the orbital tissues as well as the tissue of the face become very œdematous, thus adding to the exophthalmos. (2) Entirely independent of any circulatory changes is the exophthalmos produced directly by the stimulation of the cervical sympathetic nerve. This protrusion is due to the peristaltic contraction of the orbital muscle. From these experiments we can draw no certain conclusions as to the mechanism of the exophthalmos in Graves's disease, but the possibilities are perhaps more closely defined.

5. **Emaciation in Tuberculosis.**—Hays asserts that the cause of the emaciation which is observed in tuberculosis has not as yet been established. He has attempted to investigate the relation of digestive activity to the wasting. For this purpose he has assumed that the activity of the salivary glands can be taken as an index of the activity of the whole digestive glandular system. He has therefore studied and compared the salivary secretion from three groups of subjects: Healthy, tuberculous, and those suffering from malignant disease. He asserts that he has proved that the saliva of tuberculous patients is greatly impaired in digestive power. He believes therefore that one of the causes of the emaciation in tuberculosis has been established.

AMERICAN MEDICINE.

October 15, 1904.

1. The Historical Relations of Medicine and Surgery, By T. CLIFFORD ALLBUTT.
2. Relations of Laryngology, Rhinology, and Otology with Other Arts and Sciences, By SIR FELIX SEMON.
3. The Iodine Treatment of Suppuration, By WINFIELD S. PUGH, JR.
4. The Molecular Concentration of the Blood and of the Urine, in Pregnancy, in the Puerperium, and in Eclampsia, By RALPH WALDO LOBENSTINE.
5. Research and Medicine, By ROBERT ORTON MOODY.

3. **The Iodine Treatment for Suppuration.**—Pugh has found that the tincture of iodine applied locally is one of the most efficient drugs for the treatment of suppuration. Its use is of the greatest value in scalp wounds, in ulcers of the leg, in inguinal adenitis, and in chronic vaginitis. The author asserts that after one or two applications of iodine to an infected and discharging wound the pus will almost entirely disappear and the wound will be practically dry. In surgical tuberculosis favorable results are to be anticipated.

4. **Molecular Concentration of the Urine.**—Lobenstine holds that all the theories of the origin of eclampsia held heretofore are unsatisfactory. He has investigated the condition of the blood and urine in this disease by cryoscopy, and draws the following deductions: "(1) From cryoscopic findings, there is *no* evidence of renal inactivity, nor of renal retention in eclampsia, *i. e.*, retention of the urinary products, ordinarily supposed to be the cause of the disease, the products in question being *crystalloidal* in type. (2) If there is renal retention, it must be a retention of either *colloidal* substances, which may come from either fœtus or mother, or of crystalline substances too small in amount to affect the molecular concentration of the blood. (3) Inasmuch, then, as the kidneys may be, negatively at least, ruled out as the primary ætiological factor in eclampsia, and as a free interchange may take place between the fœtal and maternal blood, we are led to believe, both from clinical facts and experimental research, that eclampsia is an intoxication in which both mother and fœtus have a share, the pathological findings in both mother and fœtus being due to the formation of multiple thrombi, with subsequent necroses. What these substances are that give rise to the intoxication, and what part the syncytium plays in their formation we cannot as yet say."

MEDICAL RECORD.

October 15, 1904.

1. Prolapse of the Ovary. An Operation for Its Cure, with Report of Twelve Cases, By CHARLES CLIFFORD BARROWS.
2. Unusual Forms and Favorite Localizations of the Rheumatic Process, By J. SCHREIBER.
3. The Specific Treatment of Typhoid Fever, By JAMES MORRIS HACKETT.
4. Why Railroad and Similar Corporations Lose Their Damage Suits. A Criticism of Prevailing Methods, By JOHN PUNTON.
5. Acute Tetanus Cured by Intraneural Injections of Antitoxine, By W. SCOTT SCHLEY.

1. **Prolapse of the Ovary.**—Barrows proposes the following operation for the treatment of prolapsed ovaries: (1) Adhesions are broken up and disease of the ovaries, if there is any, is treated in the usual way. (2) The round ligaments are then caught up and shortened after the manner suggested by Wylie. (3) The infundibulopelvic ligaments are shortened in the same manner. (4) The shortening of these two ligaments leads to the formation of a shelf of peritonæum which hides the ovary from view. This shelf is split and the ovary is pushed through the opening, from below upward. The slit is now sutured and the ovary anchored by a couple of stitches. This completes the operation. Twelve cases are reported.

2. **Rheumatism.**—Schreiber concludes that: (1) The term muscular rheumatism should be dropped in the interest of clearness and simplicity, and the unqualified term rheumatism substituted for it. (2) "Rheumatism" should be understood to mean all affections, produced by rapid changes of temperature, in the structures attached to the limbs, the periosteum, and in fibrous membranes. (3) Those disposed to rheu-

matism do not from a prophylactic standpoint need to dread uniform cold, even if intense, but rather warmth, especially that caused by muscular effort, suddenly followed by rest and cooling off. (4) The most rapid and reliable remedy for recently acquired rheumatism is muscular exercise. The patient should boldly perform the movements that cause pain. Articular rheumatism should of course be carefully excluded. (5) Chronic rheumatism can be cured only by mechanicotherapeutics, in which active and passive movements play the chief rôle. (6) The clergy, school teachers, and foresters should add this simple doctrine of muscular rheumatism to their stock of hygienic lore, in order that they may be able to instruct the people in regions without physicians and so preserve many from serious illness.

3. **Typhoid Fever.**—Hackett's specific treatment of typhoid fever is a modification of the old so called mercury treatment. The author gives blue-mass to the point of toleration. An alkaline cathartic should be given every morning, whether the bowels are constipated or loose. It is claimed that this form of treatment will shorten the course of the disease and reduce the severity of the usual symptoms.

5. **Tetanus.**—Schley reports one case of tetanus treated by Rogers's method of intraneural injections of antitoxine. The patient recovered. To date four cases have been treated by this method with four recoveries: One of these cases was reported by Meyer and Ransom; and two were reported by Rogers and the author. A temperature chart of the first eight days is appended and marked with the quantity, time, and site of the antitoxine injections. The value of the intraneural and intraspinal injections over the subcutaneous administration is well shown in the temperature curve and pulse record.

BRITISH MEDICAL JOURNAL.

October 1, 1904.

1. The Historical Relations Between Surgery and Medicine, By T. C. Allbutt.

(*Seventy-second Annual Meeting of the British Medical Association.*)

Section of Surgery.

2. President's Address, By H. P. Symonds.
3. A Discussion on the Present Position of the Aseptic Treatment of Wounds, By F. F. Burghard, C. Leedham-Greene, G. Barling, and Others.
4. The Present Position of Aseptic Surgery, By W. W. Cheyne.
5. Cysts in the Median Line of the Front of the Neck, By G. H. Edington.
6. The Operative Treatment of Hernia in Infants and Young Children: 360 Consecutive Cases, By H. J. Stiles.
7. On the Remote Results of Operations for the Radical Cure of Oblique Inguinal Hernia: 103 Cases, By R. Kennedy.
8. Two Cases of Renal Calculus in Which the X Ray Failed to Indicate the Presence of a Stone, By R. C. Lucas.
9. Hepatic Drainage, By J. B. Deaver.
10. Carcinoma of the Mammary Gland: Early Diagnosis and Radical Operation Necessary for Its Cure, By W. L. Rodman.
11. On Certain Defects in the Present Operation for Mammary Cancer, By W. S. Handley.
12. On Forceps-Tourniquet for the Control of Hæmorrhage During Operations Upon the Extremities and in Interscapulothoracic Amputations, By J. L. Thomas.
13. The Intravesical Separation of the Urines Coming from the Two Ureters as an Aid to Diagnosis in Surgical Disease of the Kidneys, By R. A. Bickersteth.

3, 4. **Asepsis.**—Burghard, in opening the discussion on the aseptic treatment of wounds, agrees that the method without antiseptics possesses great advantages when perfectly carried out to its logical conclusion. But he holds that this can only be done under exceptional circumstances by skilled bacteriologists, even in the most elaborately fitted hospital operating theatre. In private practice the method is well nigh impossible. The limited use of antiseptics adds a second line of defence which tends to minimize any defects that may occur even if it does not completely counteract them. Leedham-Greene has studied the various methods advocated for the sterilization of the hands. He finds that Fürbringer's method is by far the quickest and most efficacious, but recommends the substitution of an alcoholic antiseptic (a 1 to 1000 solution of corrosive sublimate in 70 per cent. alcohol) for the watery antiseptic used in that method. The chief advantage lies in that the hardening action of the plain alcohol upon the skin has not been reduced by a subsequent soaking and scrubbing in the watery antiseptic. After using the sublimate alcohol, the surface of the dried skin becomes hard and polished, so that the epithelial cells are detached with difficulty. As no method of cleansing the hands guarantees sterility, it is desirable that impermeable gloves be worn when the nature of the operation will permit, whether the wound be aseptic or septic. Stiles calls attention to the importance of the surgeon's keeping the skin of the hands smooth, and warns against applying a carbolic poultice dressing over a large skin surface over night. Rodman objects to the use of chemicals in sterilizing the hands: a thorough mechanical purification, supplemented by alcohol, places the hands in a condition to defy the most thorough bacteriological scrutiny. Rubber gloves should be worn whenever possible. He strongly recommends the cumol process of sterilizing catgut. Sharp knives should always be used; never blunt instruments. Too energetic scrubbing with a brush is harmful. The wound should be thoroughly irrigated with hot water before closing it, as clots are removed, hæmorrhage is arrested, and the necessity for drainage is diminished. Cathcart favors antisepsis, and states that healing by first intention is not prevented or delayed by the douching of the wound with 1 to 2000 corrosive sublimate. Cousins says that to prevent infection of wounds: (1) antiseptic solutions should be used throughout the operation; (2) the operator's hands must be frequently washed in a weak antiseptic solution; and (3) all hæmorrhage must be arrested, and the wound carefully dried and closed.

6. **Infantile Hernia.**—Stiles, after a personal experience of 360 operations for the radical cure of hernia in children, is convinced that operative treatment is practically free from risk, is not followed by recurrence, that no truss requires to be worn after operation, and therefore it should be recommended as preferable to the treatment by trusses. It cures the rupture in a fortnight, while trusses may take years or fail altogether. In operating, the indications are to isolate and ligate the neck of the sac with the least possible damage to the inguinal canal. Catgut is preferable to silk, and it is important to avoid the use of a drain. Of the author's 360 cases, 36 were in girls. In the boys the hernia was right sided in three out of four cases: 78 per cent. of the hernias were first observed in infancy. In only 5 per cent. did the sac communicate with the tunica vaginalis testis. Of the 360 cases only 8 per cent. were urgent and attended with acute symptoms. Five patients died, a mortality of 1.4 per cent.

8. **Renal Calculus.**—Lucas reports two cases in which renal calculi were found and removed by operation after expert skiagraphists had failed to detect their presence. In the first case the patient was very stout, the kidney at a great depth from the surface, and the stone very small. But the author successfully demonstrated its presence by means of his flexion and stamping test. On flexing the thigh sharply on the body pain is felt from the kidney being squeezed, and stamping the foot on the ground often brings on an attack of colic. In the second case the patient was thin and the stone large, but the skiagraphs were negative, and the flexion and stamping tests gave no result. This was due probably to the stone being immersed in pus, and to its being composed of phosphates.

9. **Hepatic Drainage.**—Deaver's conclusions are as follows: Inflammatory lesions of the liver, gall bladder, and ducts, are the result of an infection which is usually persisting up to the time of operation. The mortality in such cases is proportional to the extent of the complications. Early diagnosis and prompt operation are essential for a low mortality, whether gall stones be present or not. The salvation of the infectious cases is prolonged drainage of the bile. Cholecystostomy is the operation of choice. Hepaticus or choledochus drainage should not be considered. Hepatotomy, in the absence of an abscess, accomplishes little in the way of drainage and endangers the patient's life from hæmorrhage.

10, 11. **Cancer of the Breast.**—Among Rodman's conclusions are the following: Cancer is not only increasing in frequency, but occurs in the young and in races previously immune. The prognosis is less favorable in the young as the lymphatics are more numerous. An early diagnosis is imperative, but in 9 per cent. of all cases it cannot be made clinically. When the malignancy is in doubt a complete operation should be arranged for. Cancers of the sternal hemisphere are more frequent than is thought, and their prognosis is worse. Recurrences being usually in the skin its removal cannot be too free. Skin grafting is often necessary. Both pectoral muscles (major and minor) should always be removed, so that all diseased tissues can be taken away in one piece. The supraclavicular glands should be removed if palpable. Wounds of the axillary vessels are infrequent when the muscles are removed. Of 24 resections of the axillary vein none were fatal. Drainage should always be made. Volkmann's three year limit is insufficient and should be extended to five years. The operative mortality of 2,133 operations was 9 per cent. Radical operation, if early, should give more than 50 per cent. of cures.

Handley calls attention to certain defects in the operation for mammary cancer. Since the growth spreads along the deep fascia and not along the skin, it is unnecessary to remove so large an area of skin as to prevent complete suturing of the wound. The deep fascia, on the other hand, should be removed in a downward direction as far as a horizontal line running three inches below the tip of the ensiform cartilage. Every particle of the origin of the great pectoral should be removed from the rectus sheath. He also recommends a modified curved incision, so as to prevent pulling open of the wound.

13. **Intravesical Separation of Urine.**—Bickersteth strongly recommends the separator of Luys for the intravesical separation of the urines coming from the two ureters, as an aid to diagnosis in surgical disease of the kidney. The separator places temporarily in the bladder a vertical water tight sæptum, so as to divide it into two equal lateral halves. The urine from each kidney is immediately drained away by catheters. The character of the flow is most important: if the normal ejaculations are absent, and the instrument properly adjusted, we may be sure that the kidney is abnormal. In all cases of pus kidney there is interference with the normal ejaculations. The author reports three series of cases in all of which the procedure was of great value: 1. Absence or functional activity of one kidney. 2. Hæmaturia. 3. Pus kidney, calculous pyonephrosis.

LANCET.

October 1, 1904.

1. The Historical Relations Between Surgery and Medicine, By T. C. Allbutt.
2. A Case of Sacculated Aneurysm of the Arch of the Aorta, Treated by the Introduction of Silver Wire and the Passage of an Electrolytic Current, By H. A. Ballance.
3. A Case of Banti's Disease, By J. F. Strickland, J. F. Hodgson, and W. B. Anderton.
4. The Medical Treatment of Deep Seated Hæmorrhage, By F. Hare.
5. The Treatment of Constipation by the Injection of Olive Oil, By G. Herschell.
6. A Retropharyngeal Blood Cyst in a Case of Purpura Hæmorrhagica, By P. S. Blaker.
7. The Distribution of Fat and Strychnine in Nux Vomica Seeds, By H. W. Gadd, and S. C. Gadd
8. Three Cases of Skin Disease, By R. Saundby.

9. Uncomplicated Myocarditis in a Girl in Her Eighth Year, Associated with Signs of Cardiac Failure and Followed by Sudden Death, By G. Carpenter.
10. A Case of Aniline Poisoning, By P. G. Harvey.
11. Cervical Fibroid of the Uterus Obstructing Labor: Cæsarean Section: Supravaginal Hysterectomy, By H. T. D. Acland.
12. Lithotrity in Egypt for Large Stones, By F. Milton.
13. Some Observations Pointing to an Intracorpuscular Stage of Development in the Trypanosome, By E. J. Moore.
14. The Evolution of Man's Diet (IV), By H. Campbell.

2. **Aortic Aneurysm.**—Ballance reports the case of a man, aged forty-four years, suffering from a sacculated aneurysm of the arch of the aorta. Under local anæsthesia a hollow needle was introduced into the sac, and eight feet of number nine silver wire slowly passed in. The wire had previously been wound around a cylinder two and a half inches in diameter. The patient stood the operation well: there was considerable pain and swelling which gradually disappeared, and the tumor diminished in size and its pulsation became less forcible. For ten months the patient was comparatively comfortable, when he suddenly grew worse and died. At the necropsy, loops of the wire were found to have passed along the aorta to the origin of the left common carotid artery, one loop even reaching down to the bottom of the left ventricle.

3. **Banti's Disease.** — Strickland, Hodgson, and Anderton report the case of a woman, aged forty-six years, suffering from the symptom complex known as Banti's disease—i. e., enormous enlargement of the spleen, enlargement of the liver with symptoms of hepatic cirrhosis, marked secondary anæmia, and no increase in the leucocytes.

4. **Treatment of Hæmorrhage.**—Hare reports four more cases of deep seated hæmorrhage in which the bleeding was instantaneously stopped by the inhalation of amyl nitrite. The drug acts by suddenly lowering the peripheral resistance in the systemic arterioles, thus reducing the blood pressure in the pulmonary circulation indirectly through the fall of blood pressure in the left auricle due to diminished resistance in the aortic outflow. When amyl nitrite is not procurable it is a rational procedure to immerse the patient in a hot bath.

5. **Olive Oil Injections.**—Herschell states that the methodical use of warm oil injections is one of the most useful procedures: (1) in cases depending upon chronic mucomembranous colitis; (2) in constipation associated with spasm of the bowel such as frequently occurs in neurasthenia; and (3) to secure a daily action of the bowels in atony of the intestines. Three to ten ounces of warm olive oil should be injected into the rectum at bed time. This is retained over night and causes an evacuation the following morning. The oil must be given, slowly and easily, so as not to cause an immediate evacuation. It is best given from a large glass funnel suspended a few feet above the patient and through a rubber tube and nozzle of large calibre. When the oil is insufficient it may be supplemented by a small water injection in the morning for a few days. After two or three weeks the oil need only be given on alternate nights.

6. **Purpuric Retropharyngeal Cyst.**—Blaker reports the case of a girl, aged eight months, suffering from purpura hæmorrhagica. Dyspnœa and dysphagia developed and on examination a tense swelling was found to exist on the posterior pharyngeal wall. This was thought to be an abscess, and it was opened through the mouth, without an anæsthetic. Dark colored blood escaped from the mouth, but no pus. The hæmorrhage continued without ceasing until the patient died five hours later, no remedial measures having had any effect. Intubation of the larynx should have been tried first, but it might have been very difficult to perform, owing to the swelling in the throat.

9. **Myocarditis in a Child.**—Carpenter reports the case of a girl, aged eight years, who was suddenly attacked with faintness and cyanosis and died with symptoms of heart failure. The urine was loaded with albumin, the heart sounds were weak. A diagnosis of myocarditis was made before death, although there was no history of scarlet fever, diphtheria, or rheumatism. At the post mortem examination the heart muscle was found to be pale and friable, and microscopical examination showed widespread fatty degeneration. The author has previously reported other similar instances of uncomplicated myocarditis in children, and he claims for this condition a distinct clinical entity. Recovery can take place, even in the most severe cases.

10. **Aniline Poisoning.**—Harvey reports the case of a woman who had suffered for some months from a painful swelling of the lips and gums, dyspnœa, and general weakness. The most marked local symptom was a dark blue pigmentation of the alveolar margin of the gums, extending further over the gums than the line of lead poisoning. Aniline poisoning was suggested and on inquiry it was found that the patient was in the habit of using an aniline pencil for writing, which she moistened in her mouth from time to time. She had done so for years. On discontinuing its use her condition improved, and she recovered completely.

13. **Trypanosomes.**—Moore, in studying trypanosoma infection in cattle, noticed free in the plasma minute coccus like bodies, which soon united in pairs and were very active. After twenty-four hours they arranged themselves along the periphery of the red corpuscles, becoming intracorpuscular on the third day. On the eighth day the bodies were larger, snail shaped, and placed on one side of the corpuscles, the hæmoglobin being withdrawn to the other. A few, seen free in the plasma, looked remarkably like small trypanosomes. On the tenth day the blood, previously free of trypanosomes, contained them in immense numbers, and two days later the coccoid bodies again began to swarm in the plasma.

Letter to the Editor.

THE LAITY VERSUS THE PROFESSION.

355 West Fifty-sixth Street,
New York, *October* 10, 1904.

To the Editor,

Sir: An article in the *Post-Graduate,* which is the official magazine of the New York Post-Graduate Medical School, calls public attention to the fact that physicians through their own efforts in preventing disease are the only class of professional men working to destroy a market for their services. This is rather warmly contested by the *New York Times,* a paper which ordinarily discusses current medical affairs in a popular but thoroughly sane manner. It says:

"Doctors who believe—and apparently there are many of them—that the members of their profession are different from and superior to the members of all others, in that they are constantly endeavoring to put an end to the thing out of which they live, really ought to view their own mental condition with apprehension and to 'take something' for it before this queer delusion lets in a lot more and the unhappy victims pass beyond the possibility of help even from such of their brethren as remain sane."

After one has recovered from the temporary attack of dyspnœa which this not perfectly clear bit of phrasing inspires he may care to glance down the column until the following hits his eye:

"One can conceive, of course, of a time when medical and surgical science shall have made such progress that everybody will live on indefinitely in a state of perfect health, and there will be nothing more for doctors to do, but an enormous 'meanwhile' will precede that glorious age, and while it lasts the doctors are in no danger of starving."

It seems to me that this is little short of begging the question. Most physicians of recognized standing are not at all prone to an insomnia, the ætiology of which is the hackneyed and hungry wolf of folklore. There is and let us hope ever will be little danger of starving in the medical profession,—requirements necessary to practice are too exacting for any one to let himself come to that sad estate; but it is hardly likely that the writer of the original article had any such Utopian idea of "living on indefinitely in a state of perfect health." He merely pointed out the fact of self-abnegation which exists everywhere in the profession and which people in these days of cupidity for sordid gain are apt to overlook. It is an unpleasant thing for modest persons to recall their acts of generosity to the minds of the ungrateful, but it is certainly necessary at times to hold in check the onflux of those who would receive all and give nothing, however distasteful. There is not a commercial house in the United States, or elsewhere to my certain knowledge, where those too poor to buy can go and help themselves; yet we have dispensaries and hospitals a plenty where such can be favored with the time and attention of physicians who have spent more than a third of their lives in learning their difficult art.

But the height of absurdity is reached in the final sentence:

"Deserved credit is accorded to the doctors so cordially and generously that it ill becomes them to claim the glory of a wholly imaginary self-sacrifice."

This is certainly the "last word" on the subject and is all the more regrettable since it is the expressed opinion of a great daily which is thought by many to be especially friendly toward our profession.

I. W. Voorhees.

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Proceedings of Societies.

AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNÆCOLOGISTS.

Seventeenth Annual Meeting, held in St. Louis, on September 13, 14, 15, and 16, 1904.

The president, Dr. Walter B. Dorsett, of St. Louis, in the chair.

An Address of Welcome, on behalf of the St. Louis Obstetrical and Gynæcological Society, was delivered by Dr. Louis E. Newman. The remarks of Dr. Newman were followed by an interesting and instructive address by David R. Francis, president of the Louisiana Purchase Exposition. The responses to these addresses of welcome were made by Dr. L. H. Dunning, of Indianapolis, and Dr. Herman E. Hayd, of Buffalo.

Operative Treatment for Painful Menstruation in Young Virgins.—A paper with this title was read by Dr. William A. B. Sellman, of Baltimore. The author pointed out the great necessity of giving relief to young unmarried women who suffered from painful menstruation. The means employed should not be of a character to unsex the patient or prevent her from bearing children or from fulfilling her marital relations. The operation should not be one which would endanger life or interfere with the woman's general good health. To illustrate the condition and to demonstrate the manner in which women could be operated upon without unsexing them, while giving absolute relief from suffering, the author related a case in which he had operated. The patient, aged twenty-four, a vocalist, had been unable to use her voice with any satisfaction for a long period, on account of the pain developed in the ovarian region when she took the high notes. On June 7, 1904, under ether anæsthesia, the author curetted the endometrium, removing a quantity of congested tissue from the cavity of the uterus. He then made an abdominal incision in the median line, and found both ovaries hyperæmic and distended. Upon the left side he opened three good sized cysts and upon the right side two medium sized cysts. The Graafian follicles in each ovary were distended. He enucleated these with a sharp curette, and scraped the walls of the cysts in order to destroy the germinal membrane. He then closed these openings with catgut sutures and used the same material with which to close the opening in the abdominal wall. The patient made an uninterrupted and rapid convalescence; and had not had the slightest amount of pain in the ovarian region, and no pain during two menstruations which she had passed through, since the operation. He thought very many gynæcologists would have removed both ovaries under these conditions, and the result would have been the unsexing of the patient and probably the loss of her voice, especially in the upper register. Her voice had not been impaired in the slightest degree by the operation.

The author showed three sizes of reamers devised by himself, which he had used for ten years in overcoming the condition of stenosis or obstruction where every other means failed. In not a single instance, when handled properly, had he witnessed any injury inflicted by them.

Dr. H. W. LONGYEAR, of Detroit, stated that in operating, if one could save an ovary or part of an ovary, he should do so. But sometimes one might have to operate again. He entered a protest against operating in cases of dysmenorrhœa of short duration in young persons. One should not subject any unmarried woman to an operation if it could be avoided. The minor cases of painful menstruation of short duration did not need operative measures.

Dr. HERMAN E. HAYD, of Buffalo, alluded to the importance of examination in these cases, and said that even after an examination was made one might find that the most distressing cases were the ones that practically had no evident pathology. On a previous occasion the speaker had read a paper on this subject in which he pointed out that retrodeviation of the uterus was responsible for much of the dysmenorrhœa in unmarried women. If one upon examination should find a retroverted uterus, a prolapsed ovary, or a sensitive tube, there was a rational basis on which to work, but simply because a woman had a small os it did not follow that she was going to be the subject of dysmenorrhœa, because in all probability most of these cases were simply due to an impoverished condition of the whole system. They were simply functional troubles, and had to be met accordingly. If, however, there was an obstructive dysmenorrhœa, where there was a pinhole os—and usually these cases were associated with a congenital atrophic condition of the uterus, the small undeveloped uterus—probably one could institute some operative measures, and the interference which had been most successful in his hands had been dilatation and the wearing of a stem pessary.

Dr. WILLIAM H. HUMISTON, of Cleveland, stated that dysmenorrhœa was a common disturbance, and yet he had been unable to find a case that was not accompanied by an inflammatory condition of the mucosa. He had seen cases of narrow, conical os, with the patients menstruating without the least sign of distress, but the moment there was an inflammatory condition of the mucosa added to that, that moment the patients began to have painful menstruation. In cases of this kind he thoroughly dilated the uterine cavity, curetted, and had the patients wear an Etheridge pessary, closely watching them for several months, and if there was no accompanying disease of the appendages, the cure was decided and complete. But in these cases occasionally one would have a failure because one did not recognize an ovary which was smaller than normal, the cirrhotic ovary, which was hard to detect unless an examination was made under an anæsthetic, and there was no relief afforded, except by the removal of these shriveled, corrugated ovaries.

Dr. D. TOD GILLIAM, of Columbus, Ohio, spoke of the undeveloped condition of the uterus as a cause of dysmenorrhœa. A great many men had come to the conclusion that it was not a superficial condition; it was not produced by the condition of the uterine mucosa, as a rule; it was not the result of stenosis of the internal os, but was due to the undeveloped, unripe condition of the uterine tissues. He would be afraid of stenosis following the use of such instruments as the author had exhibited.

Dr. JOHN YOUNG BROWN, of St. Louis, said that his experience in dealing with cases of dysmenorrhœa was that unless there was a palpable pathological condition present, it was better to leave the cases alone. He did not feel that a young woman who suffered from dysmenorrhœa should be subjected indiscriminately to operative treatment or even to a gynæcological examination.

Dr. L. H. DUNNING, of Indianapolis, said that one ought not to approach any case of dysmenorrhœa without studying the surroundings very carefully. One should have a complete and thorough history of the case to determine the character of the lesion which was present before undertaking treatment. He had been surprised in studying the collected histories of some two thousand cases to find that in about fifteen per cent. of them there was dysmenorrhœa at the beginning of the menses. In the majority of cases in which the dysmenorrhœa began with menstruation, he thought one would find some errors in the development of the uterus or in the development of the nervous system which would lead to painful menstruation. Some would be found to be due to nervous conditions, others to hyperæmia of the ovaries, and still others to venous congestion of the pelvic organs, including the uterus and ovaries. Obviously, all these were not cases demanding operative procedures.

Dr. SELLMAN stated that he did not use his instruments in all cases, but only in a certain class. He would not use them in a case in which the dysmenorrhœa was brought about by an inflammatory condition, but only in those cases where a gristly condition existed.

(*To be continued.*)

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Nurses' Home of the Jewish Hospital of Cincinnati.—The new home of the nurses of the Jewish Hospital, Burnet Avenue, Avondale, will be the first of its kind to be erected especially for that purpose in Cincinnati. The new structure will adjoin the present institution and will cover a plot of ground measuring 35 feet front, with a depth of 87 feet. It will be three stories high in front, with an additional story in the rear, where the lot slopes off. The material used in the construction will be pressed brick, with buff brick trimmings and ornaments. The building will be ready for occupancy before winter.

Book Notices.

Significación Patológica del Cólico Hepático, Patogenia, Terapéutica. Por Dr. R. y Abaytúa, Académico de la Real de Medicina. Madrid: Administración de la *Revista de Medicina y Cirurgía Prácticas,* 1904. (Price, 1 peseta.)

The recent developments in the operative treatment of biliary calculi have led to numerous studies of the pathology and clinical symptoms of hepatic colic, among which the small pamphlet under consideration is one of the most excellent. It furnishes a thorough review of the pathology and the symptoms of gallstones as giving rise to hepatic colic. The French and German studies on this subject are well represented and the author adds interesting points from his own experience. The monograph closes with the consideration of the therapeutics of biliary lithiasis.

Normal Histology. By Edward K. Dunham, Ph. B., M. D., Professor of General Pathology, Bacteriology, and Hygiene in the University and Bellevue Hospital Medical College, New York. Third Edition, Revised and Enlarged. Illustrated with 260 Engravings. New York, Philadelphia: Lea Brothers & Co., 1904.

Teachers of histology will welcome the third revised and enlarged edition of Professor Dunham's textbook of normal histology. The volume retains the simplicity of presentation which made it a valuable textbook for the use of students, and the additional subject matter has brought the text well up to date. The illustrations, as in previous editions, are excellent. The original drawings are clear and diagrammatic, while those taken from other works have been well reproduced. The textbook remains one of the best of the smaller manuals of histology written for the use of medical students.

Pathological Technique. A Practical Manual for Workers in Pathological Histology and Bacteriology, including Directions for the Performance of Autopsies and for Clinical Diagnosis by Laboratory Methods. By Frank Burr Mallory, A. M., M. D., Associate Professor of Pathology, Harvard University Medical School, etc.; and James Homer Wright, A. M., M. D., Director of the Clinicopathological Laboratory of the Massachusetts General Hospital, etc. With 156 Illustrations. Philadelphia, New York, London: W. B. Saunders & Co., 1904. Pp. 469. (Cloth, $3.00.)

This edition has been carefully and thoroughly revised, and in the section on bacteriological methods the author has added descriptions of H. W. Hill's hanging block method for the observation of developing bacteria, of Harris's method of preparing celloidin sacs, and of methods for the isolation of the bacilli of chancroids, of dysentery, and from typhoid fæces.

The section on histological methods has been augmented by a description of improved methods for freezing and manipulating frozen sections, of Wright's blood stain and its application to blood films and malarial parasites, of the methods of cytodiagnosis and inoscopy in the examination of serous fluids, and of various stains. The photographs, made by L. S. Brown, are excellent.

Immune Sera. Hæmolysins, Cvtotoxines, and Precipitins. By Professor A. Wassermann, M. D., University of Berlin. Authorized Translation by Charles Bolduan, M. D. First Edition, First Thousand. New York: John Wiley & Sons. London: Chapman & Hall, Limited, 1904. Pp. ix-77.

In recent years the experimental investigations into the reactions that result from the injection of the organic constituents, especially the serum, of one animal into the body of another have yielded important results in the study of natural and artificial immunity against infectious diseases. The entire subject is so new that few physicians have had opportunity to familiarize themselves with it, and Professor Wassermann's lecture was prepared originally for the general practitioner who proposed to keep in touch with the advances in his profession. The translator has taken advantage of the opportunity to give a clear and concise exposition of a subject that will attain increased importance, a knowledge of which is essential to understand properly the action of therapeutic sera.

Nervous and Mental Diseases. A Manual for Students and Practitioners. With an Appendix on Insomnia. By Joseph Darwin Nagel, M. D., Consulting Physician to the French Hospital of New York, etc. Series Edited by Victor Cox Pedersen, A. M., M. D., Instructor in Surgery and Anæsthetist and Instructor in Anæsthesia at the New York Polyclinic Medical School and Hospital, etc. With 46 Illustrations. Philadelphia and New York: Lea Brothers & Co., 1904. Pp. 276. (Cloth, $1.00.)

This little book does not seem to us to be so meritorious as to justify its addition to the multitude of little manuals already before the medical profession.

Textbook of Nervous Diseases and Psychiatry. For the Use of Students and Practitioners of Medicine. By Charles L. Dana, A. M., M. D., Professor of Nervous Diseases and (*ad interim*) of Mental Diseases in Cornell University Medical College; Visiting Physician to Bellevue Hospital, etc. Sixth Revised and Enlarged Edition. Illustrated by 244 Engravings and 3 Plates in Black and Colors. New York: William Wood & Co., 1904. Pp. xii-690. (Price, $4.00.)

With the exception of the cutting out of some matter no longer necessary in a work of this kind, and of the addition of new cuts and some remarks on cytodiagnosis, the chapters on nervous diseases have been little changed from the fifth edition. We have, therefore, as far as they are concerned, nothing to add to what we said three years ago. The work deserves its place as first among American textbooks on nervous diseases. In the present edition the author has allowed himself (or the publishers have allowed him) sixty-eight pages on mental diseases. This is, of course, too little for a complete description of these affections. At the same time, with characteristic ingenuity, the author succeeds in giving the student a good working basis for more extensive study. He follows in general, though not absolutely, the classification of Kraepelin.

BOOK AND MAGAZINE NOTES.

Wayside Tales, for October, has a mysterious story, From Dr. Harrold's Journal, by Celia E. Shute. The denouement is left principally to the reader's ingenuity, but the tale is not unskilfully told.

Dr. Axel V. Grafstrom has in the same magazine, A Queen of the Vaudeville, which shows continuous improvement in the style and construction of this new medical novelist.

BOOKS, PAMPHLETS, ETC., RECEIVED.

Manual of Physiological and Clinical Chemistry. Second Edition, Revised and Enlarged. By Elias H. Bartley, B. S., M. D., Ph. G., Professor of Chemistry, Toxicology, and Pædiatrics in the Long Island College Hospital; Author of Medical and Pharmaceutical Chemistry. Pp. 181, with 47 Illustrations. Philadelphia, 1904: P. Blakiston's Son & Co. [$1.00 net.]

Refraction, and How to Refract. Including Sections on Optics, Retinoscopy, the Fitting of Spectacles and Eye Glasses, etc. By James Thorington, A. M., M. D., Professor of Diseases of the Eye in the Philadelphia Polyclinic and College for Graduates in Medicine; Member of the American Ophthalmological Society, etc. Third Edition. Pp. xviii-306, with 215 Illustrations, 13 of which are colored. Philadelphia, 1904: P. Blakiston's Son & Co. [$1.50.]

Light Energy. Its Physics, Physiological Action, and Therapeutic Applications. By Margaret A. Cleaves, M. D., Fellow of the New York Academy of Medicine; Fellow of the American Electrotherapeutic Association, etc. Pp. xiv-827, with Numerous Illustrations in the Text, and a Frontispiece in colors. New York, 1904: Rebman Company. London Agents: Rebman, Limited, 1904.

A Textbook of Histology. By Frederick R. Bailey, A. M., M. D., Adjunct Professor of Normal Histology, College of Physicians and Surgeons, Medical Department, Columbia University, New York city. Pp. xiv-481, profusely illustrated. New York, 1904: William Wood & Co.

The Surgical Treatment of Bright's Disease. By George M. Edebohls, A. M., M. D., LL. D., Professor of the Diseases of Women in the New York Post-Graduate Medical School and Hospital; Consulting Surgeon to St. Francis Hospital, New York, etc. Pp. 332. New York, 1904: Frank F. Lisiecki.

A System of Practical Surgery. Surgery of the Pelvis and the Genitourinary Organs. By Professor F. von Bergmann, M. D., of Berlin; Professor P. von Bruns, M. D., of Tübingen, and Professor J. von Mikulicz, M. D., of Breslau. Volume V. translated and edited by William T. Bull, M. D., Professor of Surgery, College of Physicians and Surgeons, Columbia University, New York, and Edward Milton Foote, M. D., Instructor in Surgery, College of Physicians and Surgeons, Columbia University, New York. Pp. 789, New York and Philadelphia, 1904: Lea Brothers & Co.

Illustrated Key to the Trematode Parasites of Man. By Ch. Wardell Stiles. Pp. 66. Washington, 1904: Government Printing Office.

Association of American Medical Colleges, Minutes of the Fourteenth Annual Meeting. Held at Atlantic City, N. J., June 6, 1904. Pp. 66. Chicago, 1904: Press of American Medical Association.

Les Rayons N et Les Rayons N_1. Par Le Dr. H. Bordier, Professeur agrégé â la Faculté de médecine de Lyon. Pp. 96 Avec 16 Figures. Paris, 1905: J. B. Baillière et Fils.

Anatomie und physikalische Untersuchungsmethoden (Perkussion, Auskultation, etc.). Anatomisch-klinische Studie von Dr. R. Oestreich, Privatdozent an der Universität, Prosektor des Königin Augusta-Hospitals, Berlin, und Dr. O. de la Camp, Privatdozent an der Universität, Assistent der II. med Univers.-Klinik (Charité), Berlin. Pp. vi-266. Berlin, 1905, S. Karger.

Miscellany.

Some Remarks Upon Pus Collections in the Female Pelvic Cavity and Their Treatment.—Stoner, in the *American Journal of Obstetrics,* for September, 1904, summarizes his paper as follows:

1. When pus exists outside the peritoneal cavity, it should be attacked when possible through an extraperitoneal incision. Such abscesses readily heal after incision and drainage.

2. Abscesses of the tube, or tube and ovary combined, are intractable in healing after simple incision and drainage, and are prone to relapse. By such procedure the immediate mortality may be lessened, but the total mortality is increased. Total ablation will give better results.

3. Whether the pus is sterile or not, drainage should follow operations in which the peritonæum has been soiled with pus.

4. When vaginal incision is practised, it must be thorough. Mere puncturing or aspirating the abscess is insufficient.

Physical Deterioration.—Parkes, in the *Practitioner,* for August, 1904, reviews and comments upon Mrs. Watt Smith's book with the above title. He thinks it impossible from any existing evidence to prove that physical deterioration has occurred, at least in Great Britain, which is the country to which immediate reference is made.

The evidence derived from examinations of men who present themselves as candidates for military service and are rejected is inconclusive, (1) because the class of men who present themselves as recruits varies according to the state of the labor market, and (2) there is no certainty as to the identity of the standards adopted for the judging of recruits at various times. A safer means of estimation may be derived from a view of the present health conditions, and a comparison with some former period. In the course of forty years, the rural population in England and Wales has risen little in numbers, while the urban population has nearly doubled. The physical condition often deteriorates when the rural is exchanged for the urban life; the death rate is higher, the mean duration of life is lower, and diseases of a wasting and disabling character are more prevalent.

As the ratio of rural to urban population is not increasing, it is quite possible to imagine physical deterioration in this direction. On the other hand, the conditions of living in the city are constantly improving, and from this point of view the urban population is healthier and stronger than it was forty years ago. It is quite probable that this improvement will continue. From the foregoing facts it is clear that public policy indicates that efforts should constantly be made to lessen the evil results which may attend the concentration of population in cities. Such efforts may consist (1) of measures to increase the rural population by attracting laborers to the land, (2) of measures designed to increase the health and well being of the town mechanic and laborer. Opportunities should be offered for the purchase of small holdings, encouragement given to fruit farming, and to cooperative production and distribution. Better cottages in the country should be provided, more roomy even if less substantial. The education of the children should be such as to render life upon the farm an attractive one. In the cities, more stress should be laid on the healthy bringing up of children, and on training them in the elementary principles and practice of domestic hygiene. Girls should be encouraged to think that the home ought to be clean and attractive, and that the virtues of the housewife are worthy of cultivation. The school also must be liberated from the possibility of being a communicator of disease by constant and rigid official inspection. There must also be an increase in the facilities for physical exercise for school children. Science teaches the dangers to the race that result from civilization and the stress of modern life, and the question is how to avert the natural sequence of events by measures which, while not interfering with commercial success, will enable the mass of the population to grow up better fitted to carry on the national work.

Antitoxine for Hay Fever and Rose Cold.—Hirshberg, in the *Maryland Medical Journal*, for September, 1904, refers these conditions to the toxine found in the pollen grains of the grasses and late flowering plants. Dunbar, of Hamburg, has prepared an antitoxine in both liquid and dry form which is called pollantin, and which is supposed to be an efficient means of cure. Pollantin occurs in both a liquid and a dry form, the latter being the more effective. Twenty-five hundredths per cent. of carbolic acid is added to the liquid as a preservative, as it decomposes readily. It is not to be used subcutaneously. It is harmless, does not produce permanent immunity, and must be used repeatedly. If used as a prophylactic, together with other precautionary measures, an attack may be warded off. If pollantin is used in the form of powder, it may be inhaled into one nostril at a time like snuff. It may be applied to the eyes with a camel's hair brush. It should be used in the morning before rising, and may be repeated several times at intervals of a few minutes until the sneezing and reddening of the eyes, which it sometimes causes, disappear. This will usually bring relief for several hours, perhaps for an entire day. If the trouble should recur during the day, the treatment should be renewed. In some cases the mucous membrane may be so swollen that the antitoxine cannot be properly applied, or absorbed. If the powder fails to relieve, the serum may be tried and it will usually be effective. Should it fail, the patient is advised to retire to a room in which the doors and windows have been closed, and remain there until relief comes, using the pollantin every ten minutes, and then at longer intervals. The patient should sleep in a room in which the windows are closed during the hay fever season. If the liquid antitoxine is used, it should be instilled into the eye and nose with a pipette, the same rules as to time and frequency being observed as with the powder.

Reports have been published of 300 cases in which Dunbar's antitoxine has been used. A perfect result was obtained in 182, while in 40 no relief at all was obtained.

The antitoxine is obtained, like the diphtheria serum, from horses. If injected hypodermically, the serum may cause itching, urticaria, erythema, and abscess. Sleeping in a closed room is believed to be quite essential, and the other rules, which have been found efficient, should be rigidly followed.

Pruritus Ani.—Tuttle, in the *American Journal of Dermatology and Genitourinary Diseases*, No. 3, 1904, thinks that in the treatment of this condition too much stress is usually laid upon the local therapy.

The visible lesions, in this condition, are caused by the itching, and the scratching which is a necessary consequence. The original cause is to be found in constitutional conditions, and this must be ascertained in order to subject it to rational treatment.

Lithæmia, gout, diabetes, rheumatism, or digestive disorders may have acted as the efficient cause.

Coffee, mustard, pepper, shellfish, sauces, and salt meat will often produce the condition in question.

Before treatment is begun it will therefore be necessary to study the questions of the nutrition and the digestion of the patient, and to investigate the condition of his urine and fæces.

Among local causes may be mentioned parasites, eczema, herpes, fissures, fistulæ, hæmorrhoids, and rectal tumors. Reflex causes may be found in pregnancy, the menopause, urethral stricture, phimosis, disorders of the liver, and uterine disease. The action of local remedies varies greatly; that which relieves one may not relieve another, that which is effective to-day may be useless to-morrow. The following formulæ have been found serviceable:

℞ Carbolic acid............7½ grammes (2 drachms);
Salicylic acid.............3¾ grammes (1 drachm);
Glycerin ....30 grammes (1 ounce).
M. For external use.

℞ Fluid extract of hamamelis..30 grammes (1 ounce);
Fluid extract of ergot......60 grammes (2 ounces);
Fluid extract of hydrastis....30 grammes (1 ounce);
Compound tincture of benzoin.........7½ grammes (2 drachms);
Carbolic acid (5 per cent.)...30 grammes (1 ounce).
M. For external use.

Camphor has not been satisfactory as an application but chloral in a two per cent. solution has often brought relief, as a local remedy. In applying remedies, the anus should be well dilated with a speculum, so that even the smallest fissures may not be overlooked in their use. A solution of nitrate of silver, not too concentrated, is a useful application. Before absorption of this substance has taken place, a layer of pure ichthyol may be applied. This treatment should be given daily for a week, and then every second or third day for another week. In the intervals the following formula may be used:

℞ Carbolic acid..........2 centigrammes ($^3/_{10}$ grain);
Resorcin ....5 centigrammes (¾ grain);
Icthyol ....1 gramme (15 grains);
Petrolatum ....10 grammes ($^1/_3$ ounce).
M. For external use.

Treatment with the x rays was beneficial in one of the author's cases and useless in others. The same was true as to electric currents of high frequency. Radiotherapy, in one instance, was followed by a burn which baffled all efforts to heal it.

Suitable Training, Its Opposition to Prostitution.—Schiller in *Zeitschrift für Bekämpfung der Geschlechts Krankheiten,* Band II, Heft 8, observes that opposition to prostitution varies according as one regards the causes which lead to it. One theory sees in the prostitute the counterpart to the male offender, and a degenerate type of woman with a burden which she has inherited. Her specific criminality is prostitution. Another theory simply regards her as the result of social conditions. Want of education is regarded as one of the chief causes of prostitution. Most prostitutes are of illegitimate origin and have never had the advantages of home and parents. Of those children who are placed in public institutions, a large percentage are the offspring of criminal parents. Among such children there is often an inherited tendency to the prostitute's life. Poverty on the part of parents and inability or want of knowledge properly to care for children, to keep them off the street and guide them to correct habits are additional factors in causing prostitution.

The necessity of public education and public care is therefore not only a matter of social, but of financial, importance to the State, and applies particularly to young females who would otherwise be neglected and be candidates for the life of the prostitute. Institutes for the care of the young and unprotected should never be suggestive of the prison or the workhouse, and should instil into the minds of those who may be placed there that the humblest labor is preferable to prostitution. Girls who are in public institutions should also be impressed with the danger to health which is associated with prostitution.

The number of minors, who were recorded as public prostitutes in Berlin in 1901, shows the particular necessity of guarding the welfare of girls between the ages of 14 and 20 years.

Postoperative Intestinal Paresis. A Further Contribution to Its Prevention.—Craig, in the *American Journal of Obstetrics*, for September, 1904, reiterates the value of eserine salicylate in preventing intestinal paresis. Its action is that of a spinal depressant and it lessens or prevents the inhibitory impulses ordinarily sent to the intestinal musculature by way of the splanchnics as a reflex result of peripheral irritation. It also saves a vast amount of work to the plexuses of Auerbach and Meissner through its powerful stimulant action upon the muscular fibres of the intestine or upon the nerve terminations within them. A dose of $^1/_{30}$ of a grain is given hypodermically as soon as possible after the abdomen has been opened. The early administration is important, for reflex inhibition begins from the earliest moment of exposure and manipulation of the intestines, this being combated by the intrinsic plexuses, and paresis being complete when the latter are exhausted. Eserine having been given, the postoperative conduct of the bowels is the same as though the abdomen had not been opened. In other words, the bowels may be expected to move without further medication in twelve to forty-eight hours after the patient has been placed in bed. Should they not move during that period it may be concluded that they were thoroughly evacuated before the operation. Exceptions to this rule would be explained by the poor quality of the eserine, the idiosyncrasy of the patient, sepsis from an improper operation, or mechanical obstruction which follows the use of a large drainage tube, or the presence of raw surfaces in the peritonæal cavity.

In the author's experience, after eserine has been given, the patient is comfortable, seldom vomits, has little thirst, little or no pain, and no abdominal distention. On the evening of the day following the operation a tablet is given which contains aloine, grain, $^1/_5$; extract of belladonna, grain, $^1/_3$; strychnine sulphate, grain, $^1/_{60}$, and eserine salicylate, grain, $^1/_{100}$. This is repeated each subsequent night until convalescence is established. It is believed that this is preferable to a saline cathartic, as it keeps up a more active peristalsis. It is very important that the eserine be of good quality, and it must not be kept in solution, as it thereby loses a large part of its therapeutic action on the intestinal muscles.

A Rotary House for Consumptives.—In the South of France, according to the *Indian Medical Record* for July 27, 1904, may be seen an interesting little structure, which has earned the name of the " Villa Tournesol " from the fact that the dwelling is always turned towards the sun. It was erected by a well known French architect, M. Eugène Pettit, at the advice of Dr. Pellegrin, who contends, that houses on this plan are ideal houses for those with weak chests or affected lungs. The house is square in shape, and the weight is carefully distributed. It is built on a steel turntable, which can be revolved by a slight effort. The dwelling is built of stone, brick and iron, and is in every sense a well built and finished dwelling. Running through the centre of the structure, to the foundation is an upright rod, with a crossbar forming two handles like a capstan. By means of this arrangement, two men can turn the table and the house at the same time. There are holes in the platform for the passage of water, sewer pipes and electric wires, etc. Another interesting fact is the absence of windows, at the sides and back of the house, so that there can be no draughts. "A house of this description," says Dr. Pellegrin, " situated in a fine, healthy, sunny climate, is the best possible way of curing consumption and similar diseases."

Surgical Tuberculosis in the Abdominal Cavity with Especial Reference to Tuberculous Peritonitis.—William J. Mayo, A. M., M. D., in his address on surgery before the Mississippi Valley Medical Association, said in part: In St. Mary's Hospital during the ten years from October 1, 1894, to October 1, 1904, 6,408 abdominal operations were performed, and of these 183, or a little less than 3 per cent., were for tuberculous lesions; localized in the intestine 21 times, in the appendix 29, in the Falloppian tube 44, in the peritonæum 89. Of the last, not over 50 per cent. remained well, although 96 per cent. were discharged improved or cured, giving a high percentage of relapses within two years. About four females were operated upon to one male. In seven relapsing cases in females, reinfection was found to arise from tuberculosis of the mucous membrane of the tube. In all, 26 cases of tuberculous peritonitis in females were subjected to radical operation for removal of tuberculosis of the Falloppian tube. In a few females an infecting focus was found in the appendix or cæcum. In a minority I was not able to trace the source. In the men, a considerable number arose from a tuberculous lesion of the appendix or cæcum. Tuberculous peritonitis, like septic peritonitis, is due to a local focus. A considerable number of cases of tuberculous peritonitis are cured by nature. Simple laparotomy aids recovery by permitting of more thorough encapsulation of tuberculous products and by increasing the antituberculous serums in the abdominal cavity. Removal of the localized focus of infection in the tube, appendix, etc., will greatly increase the percentage of cures, and prevent reinfections. If the local focus can be removed and is primary, generally a cure may be expected. If secondary to a primary disease in the lung or other part of the body, ultimate recovery depends on the curability of the chief lesion.

The Influence of Operative Procedures Upon Blood Pressure.—Crile, in the *Practitioner*, for August, 1904, states that diminution in blood pressure is the essential phenomenon in surgical shock, which is due to exhaustion of the vasomotor centres. Collapse is the result of hæmorrhage which is necessarily attended by a fall of blood pressure. In collapse stimulants and saline injections are indicated.

In shock digitalis, nitroglycerine, alcohol, and other stimulants are useless.

Strychnine being a pure vasomotor stimulant will double the normal blood pressure for hours when given in full doses, but if given too frequently the blood pressure will fall from exhaustion of the vasomotor centres. Neither strychnine nor saline injections are of any value in shock. The only methods which are of value are those which act directly upon the peripheral circulation. Crile has devised an india rubber suit which can be inflated when worn and produce uniform pressure, thus causing artificial peripheral resistance. By such means the blood pressure in shock may be raised. Suprarenal extract, by intravenous injection, will raise the blood pressure in shock, but its effect is of short duration and it must be frequently repeated. Cushing advises frequent estimation of the blood pressure during operations to anticipate and ward off shock. This is much better than mere digital estimation of the radial pulse. During narcosis there is a fall of the blood pressure. Operations upon the upper part of the abdominal cavity produce more profound effect than those which involve the lower part, and the results seem proportional to the injury inflicted on the peritonæum. The removal of large tumors or large quantities of fluid from the pleural or abdominal cavities frequently causes much lowering of pressure, and the same is true when the peripheral or central nervous system is greatly interfered with. Surface operations, which do not involve large nerves, cause little change in pressure, the reverse being true of operations upon the genital organs.

Official News.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the week ending October 15, 1904:

Smallpox—United States.

Place.	Date.	Cases.	Deaths.
Arkansas—Fort Smith	Aug. 20-27	3	
Illinois—Chicago	Oct. 1-8	3	
Indiana—Evansville	Oct. 10	20	
Massachusetts—North Adams	Oct. 1-8	1	
Michigan—At 89 places	Sept. 24-Oct. 1	Present.	
Minnesota—Hennepin County	Sept. 27-Oct. 3	23	
Minnesota—Washington County	Sept. 7-Oct. 3	1	
Missouri—St. Louis	Sept. 24-Oct. 10	20	1
New York—Buffalo	Oct. 1-8	1	
New York—New York	Oct. 1-8		1
Ohio—Cincinnati	Sept. 30-Oct. 7	1	
Ohio—Toledo	Oct. 1-8	1	
Tennessee—Nashville	Oct. 1-8	3	
Texas—San Antonio	Sept. 1-30	1	
Wisconsin—Milwaukee	Oct. 1-8	1	
Smallpox—Insular.			
Philippine Islands—Manila	Aug. 13-20	1	2
Smallpox—Foreign.			
Africa—Cape Town	Aug. 20-27	1	
Belgium—Brussels	Sept. 17-24		1
France—Paris	Sept. 17-24	10	2
Great Britain—Bristol	Sept. 17-24	1	
Great Britain—Glasgow	Sept. 23-30	1	
Great Britain—Leeds	Sept. 10-17	5	
Great Britain—Manchester	Sept. 17-24	2	
Gt. Britain—Newcastle-on-Tyne	Sept. 17-24	7	
Great Britain—Nottingham	Sept. 17-24	4	
India—Bombay	Sept. 6-13		1
India—Karachi	Sept. 4-11		1
Italy—Catania	Sept. 23-29		1
Italy—Palermo	Sept. 17-24	9	2
Mexico—City of Mexico	Sept. 17-24	2	
Russia—Moscow	Sept. 10-17	6	1
Russia—St. Petersburg	Sept. 10-17	9	1
Russia—Warsaw	Oct. 13-20		20
Turkey—Alexandretta	Sept. 17-24	Present.	
Turkey—Beirut	Sept. 17-24	Present.	
Turkey—Constantinople	Sept. 18-24		19
Yellow Fever.			
Mexico—Coatzacoalcos	Sept. 17-24	15	4
Mexico—Merida	Sept. 25-Oct. 10	1	
Mexico—Tehuantepec	Sept. 25-Oct. 10	1	1
Cholera.			
India—Bombay	Sept. 6-13		4
India—Calcutta	Aug. 26-Sept. 10		10
Russia — Trans-Caspian Territory and Central Asia, Askabad	Aug. 19	1	1
Russia—Bairam Ali	Aug. 14-17	8	4
Russia—Kaahka	Aug. 12-19	12	5
Russia—Merv	Aug. 18-19	29	16
Russia—New Bokhara	Aug. 16	1	1
Russia—Tejend	Aug. 12	1	1
Russia—Trans-Caucasia, Baku	Sept. 11	5	
Plague—Insular.			
Philippine Islands—Manila	Aug. 13-20	1	1
Plague—Foreign.			
Egypt—Alexandria	Sept. 3-9	9	8
Egypt—Tukh	Sept. 3-9	6	4
India—Bombay	Sept. 6-13		62
India—Calcutta	Aug. 26-Sept. 3		7
India—Karachi	Sept. 4-11	6	2
Japan—Formosa	Aug. 20-27	7	9

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending October 15, 1904:

Clifford, A. B., Assistant Surgeon. Ordered to the Naval Museum of Hygiene and Medical School, Washington, D. C.

Cole, H. W., Jr., Assistant Surgeon. Appointed an assistant surgeon, with the rank of lieutenant, junior grade, from October 5, 1904.

Cowan, J., Pharmacist. Ordered to the Naval Hospital, Port Royal, S. C., for duty.

Smith, H. W., Assistant Surgeon. Ordered to the Naval Museum of Hygiene and Medical School, Washington, D. C.

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending October 15, 1904:

Craig, C. F., First Lieutenant and Assistant Surgeon. Having reported to the Military Secretary is ordered to return to his proper station in the Presidio of San Francisco, Cal.

De Witt, W., First Lieutenant and Assistant Surgeon. Leave of absence extended fourteen days.

Duval, D. F., Captain and Assistant Surgeon. Granted leave of absence for fifteen days.

Field, Peter C., First Lieutenant and Assistant Surgeon. Leave of absence extended fifteen days.

Hoff, John Van R., Lieutenant-Colonel and Deputy Surgeon-General. Left Fort Leavenworth, Kan., on seven days' leave of absence.

Wakeman, W. J., Major and Surgeon. Granted leave of absence for ten days.

Public Health and Marine Hospital Service:

List of Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the Public Health and Marine Hospital Service for the seven days ending October 12, 1904:

Amesse, J. W., Assistant Surgeon. To proceed to San Francisco, Cal., and report, on October 31, 1904, to the chairman of board convened to determine the fitness of Assistant Surgeon Amesse for promotion to the grade of passed assistant surgeon.

Collins, G. L., Assistant Surgeon. Leave of absence for three days from September 30, 1904, granted Assistant Surgeon Collins under paragraph 191 of the regulations, amended to read one day only.

Foster, M. H., Passed Assistant Surgeon. Relieved from duty at Port Townsend, Washington, and directed to proceed to San Diego, Cal., and assume command of the service at that port, relieving temporary Acting Assistant Surgeon B. V. Franklin. October 10, 1904.

Frick, John, Acting Assistant Surgeon. Relieved from duty at Brownsville, Texas, and directed to proceed to Laredo, Texas, and report to the Medical Officer in Command for duty. October 10, 1904.

Goldberger, Joseph, Passed Assistant Surgeon. Relieved from duty at Monterey, Mexico, and directed to proceed to Tampico, Mexico, for duty, relieving Passed Assistant Surgeon T. B. McClintic. October 10, 1904.

Jackson, J. M., Jr., Acting Assistant Surgeon. Granted leave of absence for thirty days from October 26th.

LaGrange, J. V., Pharmacist. Granted extension of leave of absence for sixteen days from October 3rd.

McClintic, T. B., Passed Assistant Surgeon. Upon being relieved at Tampico, Mexico, by Passed Assistant Surgeon Joseph Goldberger, to proceed to Washington, D. C., and report at the Bureau for further orders. October 10, 1904.

Robinson, D. E., Passed Assisant Surgeon. Relieved from duty at Port Townsend Quarantine, Washington, and directed to proceed to Port Townsend, and assume command of the service at that port, relieving Passed Assistant Surgeon M. H. Foster. October 10, 1904.

Rosenau, M. J., Passed Assistant Surgeon. Detailed to represent Service at meeting of the Committee on Antitoxine and Immunizing Sera of the Laboratory Section of the American Public Health Association at New York, October 7th and 8th.

Sprague, E. K., Passed Assistant Surgeon. Granted leave of absence for seven days from October 11, 1904, under paragraph 191 of the regulations.

Stoner, G. W., Surgeon. Granted leave of absence for eight days from September 19, 1904, under paragraph 189 of the regulations, amended to read seven days only.

Wertenbaker, C. P., Surgeon. Granted leave of absence for one month from date of joining station at Ellis Island, New York, N. Y. October 8, 1904.

Appointment.

John M. Bell, of Minnesota, appointed pharmacist of the third class. October 6, 1904.

Boards Convened.

Board convened to meet at the Purveying Depot, New York, N. Y., October 31, 1904, for the examination of such assistant surgeons as may present themselves to determine their fitness for promotion to the grade of passed assistant surgeon. Detail for the board—Surgeon H. W. Sawtelle, chairman. Surgeon G. W. Stoner. Passed Assistant Surgeon C. H. Lavinder, recorder.

Board convened to meet at the Plague Laboratory, San Francisco, Cal., October 31, 1904, for the examination of Assistant Surgeon J. W. Amesse to determine his fitness for promotion to the grade of passed assistant surgeon. Detail for the board—Passed Assistant Surgeon Rupert Blue, chairman. Passed Assistant Surgeon H. S. Cumming. Passed Assistant Surgeon D. H. Currie, recorder.

Births, Marriages, and Deaths.

Married.

Deadwyler—Gorham.—In Maysville, Georgia, on Thursday, October 6th, Dr. M. P. Deadwyler and Miss Rosa Gorham.

Dustan—Wiss.—In Morristown, New Jersey, on Tuesday, October 11th, Dr. Henry W. Dustan and Miss Adele Wiss.

Hess—Straus.—In Elberon, New Jersey, on Wednesday, October 12th, Dr. Alfred T. Hess and Miss Sara Straus.

Joyce—Knight.—In Baltimore, Maryland, on Tuesday, October 4th, Dr. John Collison Joyce and Miss M. Amy Knight.

Lawrence—Murray.—In Carlisle, Pennsylvania, on Tuesday, October 4th, Dr. Frederick Mortimer Lawrence and Miss Margaret Bosler Murray.

Merz—Rolfes.—In St. Louis, Missouri, on Wednesday, October 4th, Dr. Adolph Merz and Miss Cecelia Rolfes.

Simmons—Osborne.—In Brooklyn, N. Y., on Tuesday, October 11th, Dr. Warren S. Simmons and Miss Evelyn G. Osborne.

Titus—Pond.—In Minneapolis, Minnesota, on Tuesday, October 4th, Dr. William Titus and Miss Frances Eggleston Pond.

West—Bresee.—In Baltimore, Maryland, on Tuesday, October 11th, Dr. Marshall B. West and Miss Anne Evans Bresee.

Died.

Brennan.—In St. Louis, Missouri, on Tuesday, October 4th, Dr. William N. Brennan, in the sixty-eighth year of his age.

Curtiss.—In London, England, on Thursday, September 22nd, Dr. Samuel Ives Curtiss, of Chicago.

Estabrooke.—In Chicago, Illinois, on Monday, October 10th, Dr. William W. Estabrooke, in the seventy-eighth year of his age.

Lytton.—In Wheatland, Indiana, on Sunday, October 2nd, Dr. J. Lytton, in the seventy-second years of his age.

Mallory.—In Colborne, Ontario, on Tuesday, October 4h, Dr. A. E. Mallory.

Morrill.—In Concord, New Hampshire, on Sunday, October 9th, Dr. Shadrach Cate Morrill, in the sixty-sixth year of his age.

Prichard.—In Huntington, West Virginia, on Wednesday, October 5th, Dr. T. J. Prichard, in the fifty-first year of his age.

Reynolds.—In Carlisle, Kentucky, on Monday, October 10th, Dr. B. F. Reynolds, in the sixty-ninth year of his age.

Severance.—In Greenfield, Massachusetts, on Saturday, October 1st, Dr. William L. Severance, in the forty-seventh year of his age.

Smith.—In Detroit, Michigan, on Saturday, October 8th, Dr. Hamilton E. Smith, in the sixty-fifth year of his age.

Stovall.—In Vienna, Georgia, on Monday, October 10th, Dr. Stephen B. Stovall, in the seventy-eighth year of his age.

New York Medical Journal
AND
Philadelphia Medical Journal.

A Weekly Review of Medicine

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Original Communications.

INTRACAPSULAR FRACTURE AT THE HIP JOINT, WITH COMPLETE UNION OF THE FRAGMENTS.

By THOMAS H. MANLEY, Ph. D., M. D.,
NEW YORK,
VISITING SURGEON TO THE HARLEM AND METROPOLITAN HOSPITALS.

The case here illustrated is one presenting several remarkable features.

It demonstrates the occasional possibility of union in intracapsular fracture at the hip, quite regardless of any conventional therapy, though, it will be observed that there has been quite complete resorption of the cervix femoris.

But few well authenticated instances of union after intracapsular fracture are on record.

For many years Sir Astley Cooper denied its possibility, though he was later convinced that it did sometimes occur.

Previous to coming into possession of the specimen here exhibited, I never saw but one other; this was submitted to the surgical section of the International Medical Congress, held in Washington, D. C., by the late Dr. J. B. Kernochan, of New York. Until recently, because of the general failure to secure union, by any known means, in intracapsular femoral fracture, surgeons have been content to treat them on expectant lines and get the patient out of bed as soon as possible, allowing him to use crutches or a cane thereafter.

But of late, some have assiduously tried various modes of adjustment, alleging that these, properly applied, will lead to consolidation in fracture of the cervix femoris as readily as in any other. But very few if any surgeons of large experience in this type of fracture will con-

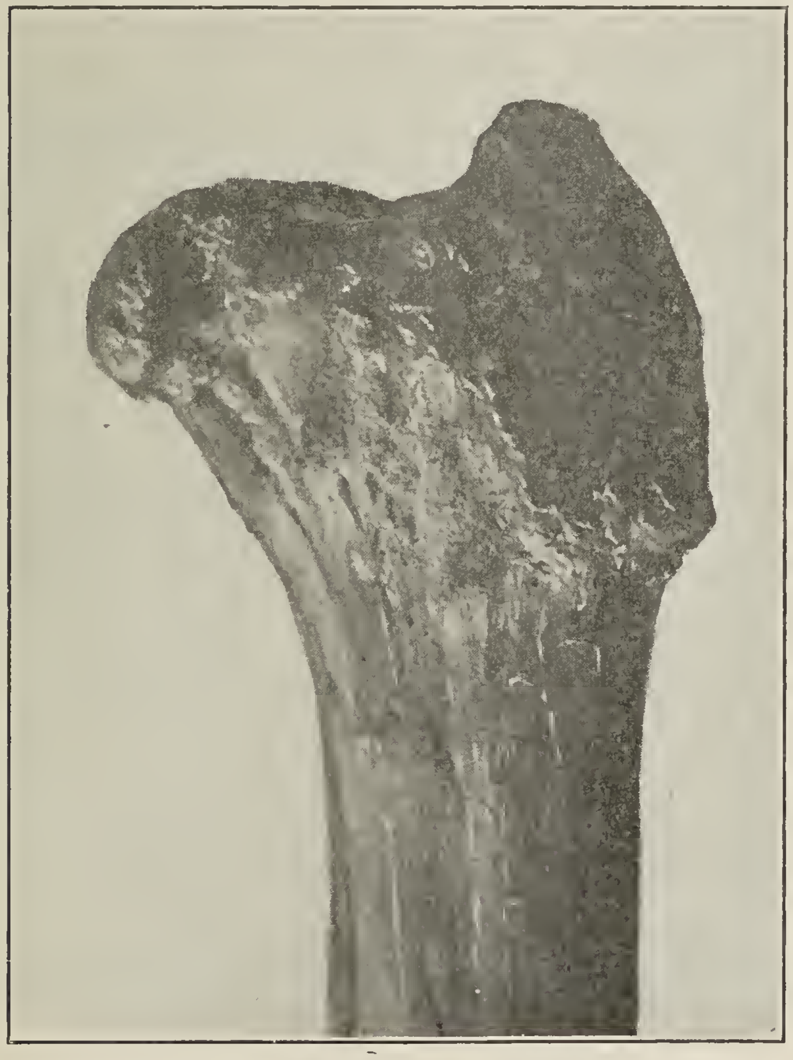

Fig. 1.—Intracapsular fracture of hip joint; front view.

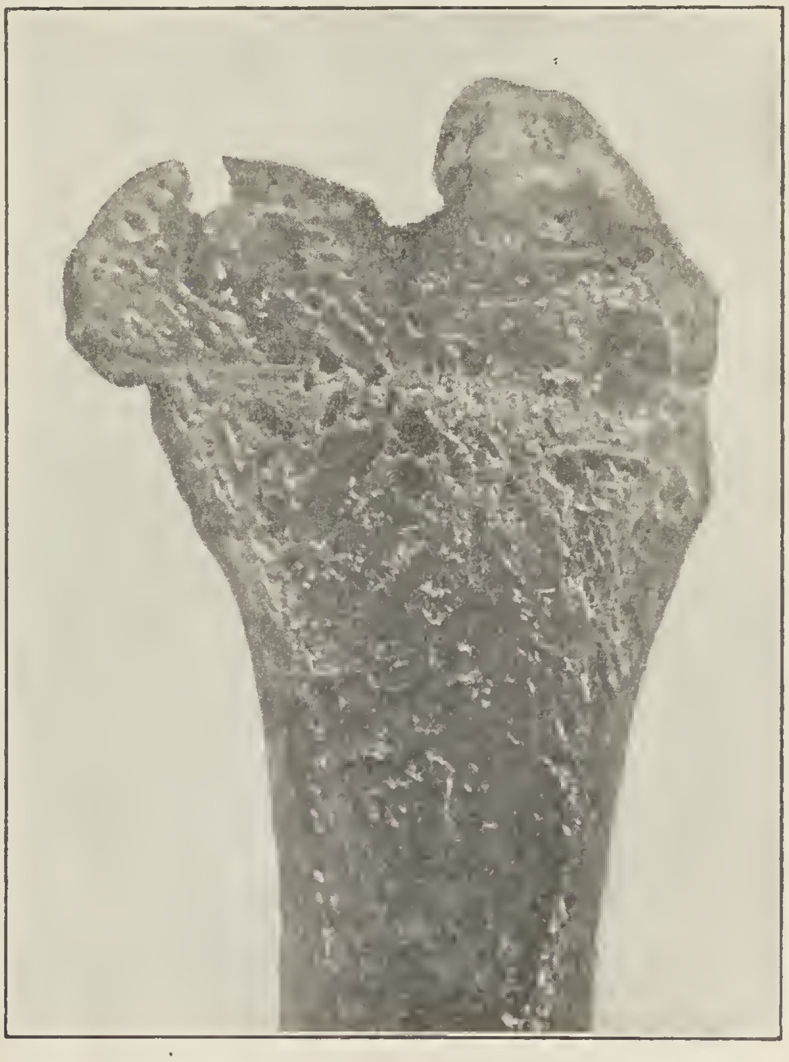

Fig. 2.—Intracapsular fracture of hip joint; rear view.

cur with this view; and this case is published in order to prove that, in spite of any description of splinting or extension, a species of union resulted, though practically with the total sacrifice of the neck of the femur, something which probably occurs in the majority of those wherein union is secured.

Mary B., Irish, 58 years old, widow, of medium build and fair general health, was brought into the Harlem Hospital in June 12, 1899, suffering from an intracapsular fracture of the left hip, sustained the same day she was admitted.

She was placed in bed, two boards being carried under the mattress, in order to prevent sinking in the centre, and a long sand bag was applied on either side of the knee joint and thigh.

A most painstaking examination was made by the house surgeon and myself, and no possible doubt of the character of the fracture remained. Eversion was distinct; there was not quite one half an inch shortening. In any direction the limb might be moved; crepitus could be elicited distinctly. Moreover the limb was powerless, and there was a large fulness in the groin, which pointed to a sanguineous extravasation overlying the acetabulum.

On the third day after admission, her friends came to the hospital and took her home.

In September, 1903, she came under my notice again in the Metropolitan Hospital Dispensary, where she entered, suffering from mammary scirrhus.

She related to me that after she went home she remained in bed for two weeks. She had no medical attendance there. After using crutches about a month, she depended on a cane. Even now, when she came for treatment of her breast, she still carried a cane for walking in the street; but, she said, she dispensed with it in the house.

As she moved about, it was noticed that there was a distinct limp with each step; though she alleged that while the limb was somewhat weak she felt neither pain nor soreness in it. She was then placed on the table and the injured limb examined carefully.

Besides the conspicuous shortening—1⅝ inch—there was extreme inversion of the foot. The patella on the affected side stood far up above its fellow. The prominence of the trochanter major had disappeared from its normal site and appeared to have rolled inward under the large femoral vessels. There was good action at the hip joint, but its rotatory range was restricted. The whole limb was well nourished and its measurements in circumference were quite the same as on the opposite side. From this time on till her demise, eighteen months later, she was under my care.

By the permission of the family I was enabled to secure post mortem the specimen here presented.

The most striking feature of the limb now was the extent of shortening, 1⅝ inch, 1⅛ inch more than was evident immediately after the fracture, a circumference emphasized as not uncommon in this variety of fracture by Birkett, Dupuytren, and several other noted surgeons. They allege that very often there is very little if any shortening after the accident, but that after an interval varying from a fortnight to six weeks it is very conspicuous. This would indicate that, owing to the dense ligamentous capsule and ponderous muscular investment of the neck, there is seldom any primary displacement of the fragments in this fracture, and that it is only when these begin to disintegrate and dissolve that the muscles pull the trochanter major up, and the hiatus left is bridged over by the shrunken disc-like remnant of the head.

When there is no shortening there is probably no displacement. These fractures should unite were it not for various pathological complications which usually render this impossible.

115 WEST FORTY-NINTH STREET.

ACCESSORY THYREOID ON THE POSTERIOR THIRD OF THE TONGUE.

By OLIVER C. SMITH, M. D.,

HARTFORD, CONN.

Mrs. Edna Rosebush, Collinsville, Conn., aged fifty years, housekeeper, French Canadian, with a negative family history, was well until seven years ago, when, for the first time, she noticed a growth on the back portion of the tongue. Two years later the growth was removed. It recurred at the end of another two years, and was removed a second time, the last operation being performed by Dr. George C. Jarvis. One year ago a section was made for diagnostic purposes. Dr. W. R. Steiner reported it to be an accessory thyreoid tumor of the tongue. She did not return to have the growth removed until May 17th, of this year, when it was found to have grown considerably. Her voice was nearly inaudible. She was unable to articulate, swallowed with great difficulty, and was unable to masticate solid food, so that her condition was becoming serious. Upon drawing the tongue forward an ovoid tumor was seen springing from the posterior third of the tongue, obscuring the epiglottis, and rising nearly to the roof of the pharynx. The mass looked to be about five cm. in length, and two thirds as broad. It felt firm, but somewhat elastic to the palpating finger. It was neither tender nor painful. None of the neighboring lymphatics was enlarged, nor was the thyreoid abnormal. The ease with which this tumor could be seen and surrounded by the palpating finger led me to believe that it could be removed through the mouth. Its removal was accomplished under cocaine anæsthesia by the écraseur. The hæmorrhage was insignificant.

In looking into the literature, we find these growths are comparatively rare. Dr. Randolph

Winslow, of Baltimore, reported a case of a girl, aged seventeen years, in *American Medicine*, December, 1902. In relation to the literature he states in his article that in 1885 Butlin, in a work on the diseases of the tongue, reports four cases of tongue adenoma, but he had not personally seen any of the cases.

Dr. Winslow believes that some of these were probably accessory thyreoids. Four years later, Butlin reported two cases, the exact nature of which had been determined by the microscope. From then until the present time, Wolf, of Hamburg; Bernays, of St. Louis; J. Collins Warren, of Boston; McIlraith, of England; Schadle, of St. Paul; Thisen, of Albany; Watson, of Philadelphia; Curtis and Gaudier, of Lille, France; Reintjes, of Holland, and other European physicians have reported altogether thirty cases.

Dr. Winslow concludes that a " moderate sized, rounded, elastic tumor, situated at the base of the tongue, and covered by smooth normal or congested mucous membrane, not painful, with no metastases, growing slowly and occurring usually in young women, is almost certainly a neoplasm consisting of thyreoid tissues. These growths do not usually present any alarming symptoms, but should be removed when they give rise to discomfort, or cause difficulty in deglutition or respiration."

Various methods have been employed for their removal.

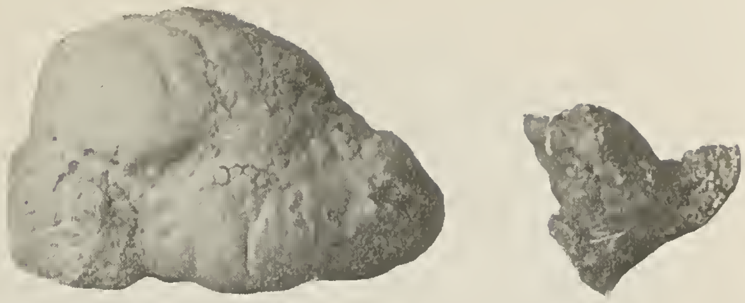

FIG. 2.—The growth after removal; actual size.

Dr. McBurney's method, which Dr. Winslow employed in this case, consists in an incision in the median line from the chin to the hyoid bone. The mylohyoid is cut, and the geniohyoid and the geniohyoglossus muscles of each side are pushed apart by blunt dissection until the base of the tumor is reached. The growth is then pressed down by the assistant's fingers, placed in the mouth, and enucleated to the mucous membrane; the mucous membrane covering the growth being removed with scissors through the wound. The resulting cavity is closed with catgut sutures, as are the separated muscles.

In this operation the head is drawn over the edge of the table to prevent blood gravitating into the larynx.

In the case which I have reported, operation through the mouth was entirely feasible, and much more simple.

Curtis and Gaudier, in an article in *Revue hebdomadaire de Laryngologie, d'otologie et de rhinologie* for April 12, 1902, from which Dr. Winslow has obtained the references which I have quoted, give their method of operating, which is to draw the tongue out as far as possible, and circle the neoplasm with a suture; draw this tight, incise, and then tie the suture. It is claimed for this method

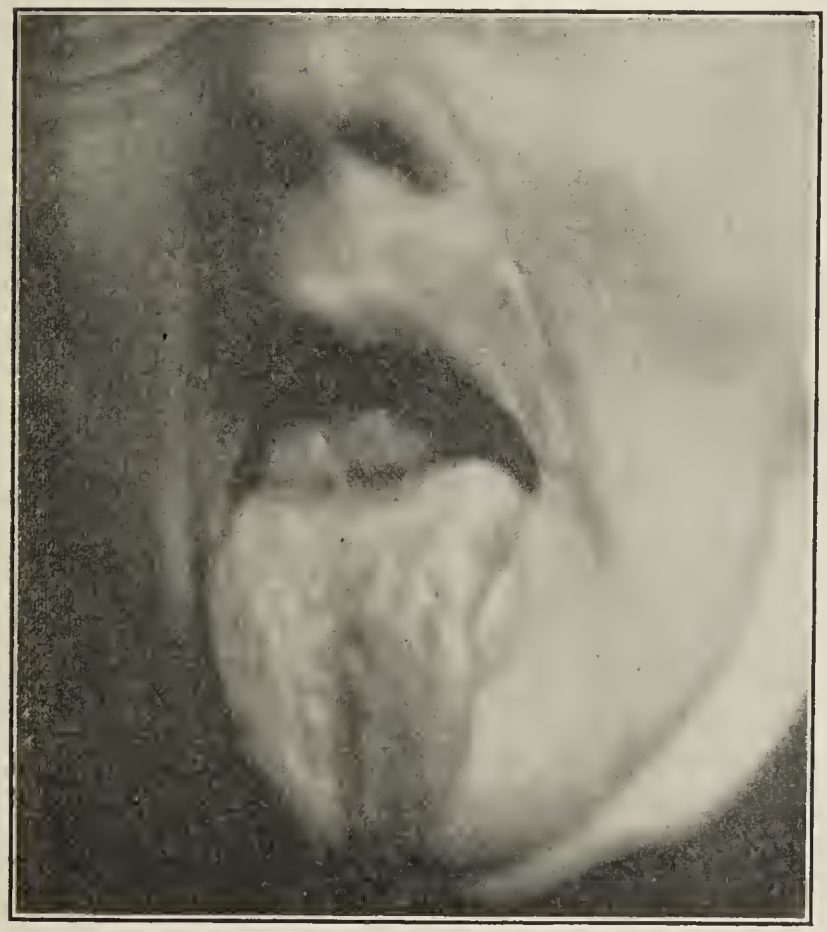

FIG. 1.—The growth in situ.

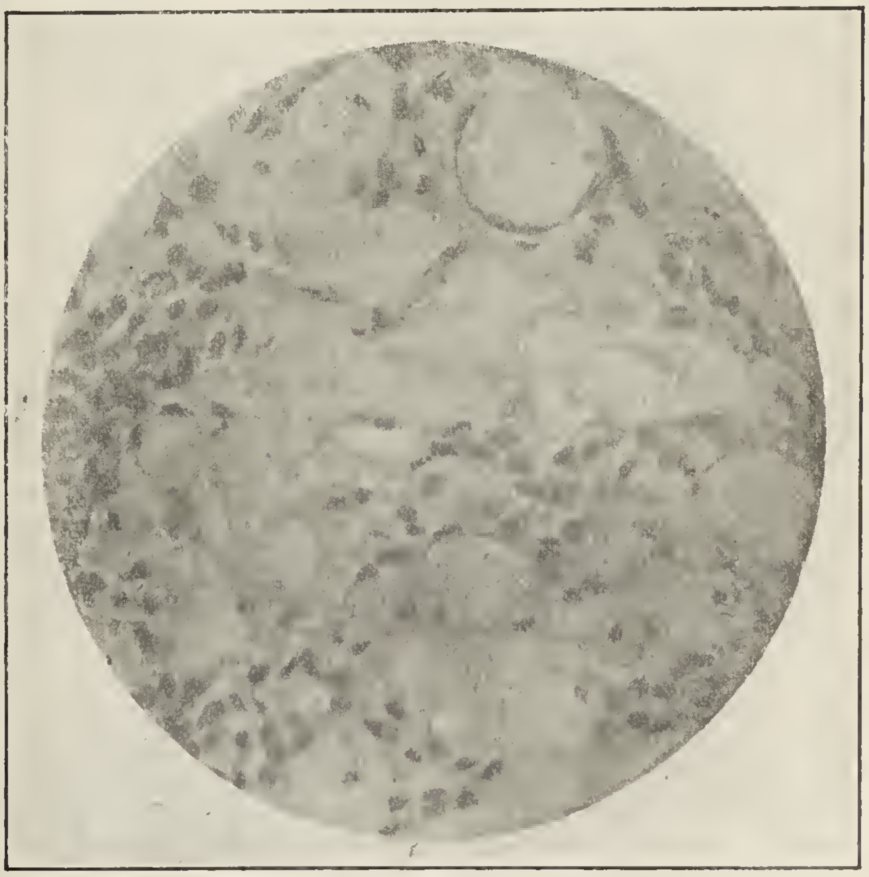

FIG. 3.—Section of accessory thyreoid (a).

Fig. 4.—Section of accessory thyreoid (b).

that there is scarcely any hæmorrhage, but, in my case, the base of the tumor was so broad that it would have been difficult to have ligated securely in this manner, as after enucleation the ligature would probably have slipped.

The extreme rarity of these cases, the importance of diagnosis and possibility of safely operating upon them, have led me to feel that this case is worthy of being reported.

◆◆◆

On Hæmorrhage from the Bowel in Malarial Disease.—Clark, in the *Journal of the Royal Army Medical Corps,* for August, 1904, speaks of this as one of the dangerous complications which are possible in malaria. It is becoming more frequent and noticeable, especially in the service of those public officers who are stationed in the tropics. It occurs as a rule, in those who suffer frequently from malarial fever, and, in many cases, has taken place soon after their admission to the hospital. It often comes without warning, blood in the bed pan with the stool, and more or less complete collapse, intimating that a serious condition is at hand. The temperature may previously have been normal or somewhat elevated. One bleeding may be quickly followed by others, until the patient is almost exsanguinated. If the hæmorrhage is complicated by vomiting and restlessness, the result is apt to be a fatal one.

The treatment should consist in limiting the patient to the dorsal position if possible, applying ice to the abdomen, and administering opium and ergot by the mouth. If the stomach refuses to retain them ergot should be administered hypodermically. Ice water enemata must not be given. The food must be fluid and limited to meat extract and milk. The author insists that this condition is neither dysentery nor typhoid fever. The blood which is passed is bright, does not coagulate, and escapes into the cavity of the bowels from the acutely congested capillaries of the intestinal mucous membrane. There is no tenesmus or straining, and no fever, after the hæmorrhage ceases.

THE DISTURBANCES OF MENSTRUATION AND THEIR SIGNIFICANCE.*

By E. E. MONTGOMERY, M. D.,

PHILADELPHIA,

PROFESSOR OF GYNÆCOLOGY IN THE JEFFERSON MEDICAL COLLEGE; GYNÆCOLOGIST TO JEFFERSON AND ST. JOSEPH'S HOSPITALS.

A proper consideration of this subject demands some knowledge of what is meant by menstruation. This term is employed to designate a periodical discharge of blood from the genital tract of the sexually active female which occurs about every twenty-eight days. The discharge continues from two to eight days, during which from two to six ounces of fluid are lost. The discharge is alkaline, thin, and contains blood corpuscles, mucus, and desquamated epithelium. The admixture of secretion from the glands prevents clotting. When the latter occurs it is due to defective secretion or excessive flow. The occurrence of menstruation, even in the healthy woman, is characterized by preceding exhilaration, increased vascular tension, and Belfield asserts, an increase of weight which may exceed one pound an hour for several hours, the individual gaining seven to nine pounds in twenty-four hours. This increment, he asserts, is due, first to increased absorption of oxygen, and second to decreased elimination. With the advent of the flow she suffers from depression, languor, malaise, disinclination for exertion, either physical or mental, and, according to Belfield, a marked decrease in weight. Many women will exhibit a tendency to the occurrence of gastrointestinal disorder, the formation of toxines resulting in an autointoxication, which will produce migraine, aggravate nervous manifestations, chorea and epilepsy, and produce delusions. Epilepsy and insanity are often so marked as to lead the family and the physician to believe the disorders are the result of diseased conditions of the pelvic organs.

The causes of menstruation are necessarily involved in speculation, and many theories have been advanced. I have so recently discussed this subject (*Therapeutic Gazette,* Vol. XXVII, 1903, page 727), that I will not take the time of the society for the consideration of the various theories, further than to attribute its periodical occurrence to changes which take place in the ovaries. Quite probably the changes in the corpus luteum, and the irritation of the secretion thus engendered will be found to be the fundamental cause. The significance of the gland structure of the corpus luteum has lately been emphasized by Fränkel.

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* Read before the Pennsylvania State Medical Society, at Pittsburgh.

I am constrained to assert that the ovaries are the cause of menstruation, for the following reasons:

1. The ovary furnishes the ovum which it is the function of the uterus to retain and nourish until its product is ready for a separate existence, hence the producer rather than the retainer should dominate the function.

2. The entire removal of ovarian structure invariably results in the cessation of menstruation.

3. The removal of the ovaries is generally followed, a couple of days later, by the occurrence of a vaginal discharge which cannot be distinguished from the ordinary menstruation. The discharge is undoubtedly due to the pressure of the ligature upon the nerves which supply the ovaries.

4. Strassman's experiments of injecting the structure of the ovary with sterilized water were followed, two days later, by a discharge from the uterus which in every way resembled menstruation.

The menstrual discharge is supplied by the entire columnar epithelium lined mucous membrane. My own researches, as well as those of others, are sufficient to demonstrate the part the tubes take in the menstrual flow. Without them, would it not be reasonable to suppose that the presence of bloody fluid in the tube was of value in promoting the nutrition of the fecundated ovum, and that distention facilitated its course toward the uterine cavity?

In making the assertion that the ovaries dominate the function of menstruation, I do not wish to be understood as asserting that ovulation and menstruation are necessarily interdependent, for numerous cases are upon record in which pregnancy has occurred, and hence ovulation, without menstruation. In discussing the disturbances of menstruation I distinctly wish to emphasize that we are dealing with the symptoms of disease rather than the disease itself, and consequently, these symptoms are especially worthy of careful study in order to determine their significance in an individual sufferer. The existence of the symptom, then, does not always indicate a particular condition. As menstruation is one of the important functions of the genital tract, any disturbance of this function must be considered as an indication for careful investigation of the genital organs, when the cause cannot be traced to constitutional conditions.

The disturbances of the menstrual function are: amenorrhœa, dysmenorrhœa, menorrhagia, and metrorrhagia; and, we may add, vicarious menstruation.

Amenorrhœa is a term applied to an almost or complete cessation of bloody flow. Occasionally the vascular tension is insufficient to result in the rupture of vessels and the discharge of blood, but causes increased secretion from the uterine glands which, with the desquamated epithelium, produces a profuse leucorrhœa which supplants the menstrual flow.

Amenorrhœa is congenital when puberty is much prolonged beyond the period of its usual occurrence, and is due to defective development, chlorosis, anæmia, or mechanical obstruction; constitutional, when profound blood changes exist, or diseased conditions are present, which are calculated to reduce vascular tension; mechanical, when an obstruction, congenital or acquired, exists to prevent its exit; due to disease of the ovaries, when these organs have become destroyed or their function has been arrested. Finally, it is a symptom of the existence of pregnancy.

Chlorosis and anæmia, as factors in the production of amenorrhœa, are generally easily recognized by the appearance of the patient. Blood examinations will be of special value, however, to determine the degree of anæmia, and the extent and gravity of the defective development or the degenerative changes in the blood corpuscles.

Chlorosis generally occurs in the young. The patient may present an appearance of full flesh, but is white or greenish white; the lips are pale, and the ears transparent; the pulse is rapid, and she breathes rapidly upon the slightest exertion. The menstrual flow is supplemented by the profuse leucorrhœal discharge already mentioned. Chlorosis and anæmia may frequently be the precursors of tuberculosis, hence the widespread dread of this symptom upon the part of the laity.

Disease of the ovaries, in the form of glandular cystoma of both ovaries, will sometimes result in this symptom. I say sometimes, for it is only when the entire structure of the ovary has become disorganized that it occurs, and menstruation may continue to be regular and pregnancy may occur when both ovaries are the seat of cystomata. Another change in metabolism, due to ovarian disease, the pathology of which has not as yet been fully recognized, results in an early menopause. The woman ceases to menstruate at thirty years or younger. She looks well. She will give a history of rapid gain in flesh, thirty or forty pounds in a year, and of a gradual decrease in, or sudden arrest of, the menstrual flow. She may have had one or two children or never have been pregnant. That the condition is not always associated with destroyed function of the ovaries is evident from the fact that in some of these patients under regulated diet and suitable treatment the menstruation returns and the sterility is overcome.

When amenorrhœa is produced by mechanical causes, it may be primary or acquired, and the obstruction may occur at any part of the genital canal, although when in the tube it may not preclude an external flow, while resulting in a partial retention. Such a patient will present the appearance of good health, will exhibit periodically menstrual molimina, and later an abdominal swelling may become visible. In the primary form, the patient has never had a visible menstrual flow; in the acquired, there usually is a history of a difficult or instrumental labor or some injury to the genital tract, after which there was no visible flow, though efforts to menstruate had recurred. In both classes of cases, the possibility of pregnancy should be considered and may be suspected, but in the primary the patient should be given the benefit of doubt until examination has rendered pregnancy certain.

The diagnosis will be difficult only when the obstruction is at the internal os. Even in such cases the distention of the uterus is likely to be more spherical, and the uterine wall thinner and yet more tense, than when the distention is due to pregnancy. Should the examiner be uncertain, he may postpone the diagnosis for another month.

The amenorrhœa of pregnancy is generally easily recognized by the healthy appearance of the patient and the usual physical signs associated with pregnancy.

Dysmenorrhœa, as a symptom of pelvic disease, is the most frequent disturbance of the menstrual function, and, possibly as a result of the training and manner of life of our women, is becoming more frequent. It indicates painful flow, consequently the expression of intermenstrual dysmenorrhœa is a misnomer. We commonly make the classification into congestive, or inflammatory, obstructive, or mechanical, ovarian, and nervous dysmenorrhœa, but such an arrangement is misleading. I am very doubtful whether obstruction ever is much of a factor in its production. Some of the cases, in which I have found dysmenorrhœa most marked, were in women in whom the uterus was very patulous and a sound could be carried to the fundus without any difficulty. On the other hand, women with uncomplicated anteflexions of marked degree have menstruated without pain.

To fully appreciate the significance of this symptom we must remember that the uterus is an erectile organ, whose walls are subject, as in all other involuntary muscle structure, to rhythmic contractions. Any inflammation of this structure, whether in its mucous membrane, muscle wall, or serous covering, must to a certain degree render the performance of the menstrual function painful. In cases in which the canal is patulous in the intermenstrual intervals, the myometrium is undoubtedly the seat of the inflammation, and the painful spasm resembles the occurrence of chordee in the male. This symptom is provoked or aggravated by faulty or defective development of the uterus, by flexions, chronic metritis, perimetric inflammation, rheumatism, gout, and neurasthenia. Its existence demands careful investigation for its cause, and it should not be forgotten that frequently much more will be accomplished by the treatment of the constitutional condition than by local applications. The experienced physician has recognized that the neurasthenic patient will often perform none of her functions painlessly, and it can be readily appreciated that such a patient will require but little disturbance of the pelvic organs to occasion pain during the course of menstruation. Ovarian dysmenorrhœa is hardly an appropriate term, for the reason that the ovarian pain is usually felt with greatest intensity some days or a week prior to the flow, and should be considered as an indication of chronic inflammation of those organs.

Recently much attention has been directed to the theories of Fleiss and Schiff as to the nervous or reflex dysmenorrhœa attributed to what are denominated the genital spots in the nose. The mere fact that cocaine solution can be applied to the nasal mucous membrane and afford relief is not proof positive that the surface thus touched was the cause of the symptom. Cocaine given internally or hypodermically would be equally effective, but is not a safe remedy for frequent employment.

Membranous dysmenorrhœa is a form of painful menstruation in which a more or less well defined cast of the uterus is discharged. It is usually associated with pain as intense as if the woman were undergoing an abortion. The cast contains the epithelial layer of the endometrium, often showing partial casts of the gland tubules, and also contains a croupous exudate. We need but to recur to the phenomena of menstruation with its desquamated epithelium to appreciate that this condition is the result of a more severe and chronic inflammation.

The condition is recognized by the association with laborlike pains of the discharge of shreds of membrane or an entire cast of the uterine cavity. The false membrane may occur but occasionally or at every period. Its occurrence indicates lowered vitality and a profound neurotic state.

Menorrhagia and metrorrhagia are terms used to indicate, respectively, excessive menstrual flow at the regular periods, and bloody flow without any periodicity. The symptom may begin as menorrhagia and end in metrorrhagia. It may occur at any time between puberty and the menopause, and metrorrhagia may *follow* the latter. The symptom may be the result of constitutional conditions interfering with vascular tension, either locally or generally, as in hepatic, cardiac, or renal disease, causing obstruction in the zymotic fevers, scurvy, and other constitutional conditions. It may be produced by pelvic conditions outside the uterus, as in cystic degeneration of the ovaries, intraligamentary cysts, fibroid growths, ectopic gestation, or periuterine inflammation; from uterine involvement, as in threatened abortion, retained fœtal products after labor or abortion, interstitial inflammation of the uterine mucosa, interstitial or submucous myomata, malignant conditions, such as epithelioma of the cervix, adenocarcinoma of the cervix or body, endothelioma, sarcoma, or chorioepithelioma.

The foregoing enumeration demonstrates the importance of careful investigation of a patient suffering from such a symptom, as, upon the recognition of its cause must depend the result of treatment. The uterus should not be abused because its possessor is the victim of some grave constitutional disorder, nor neglected when it is the direct cause of the symptom. Failure to find a general condition as a sponsor for the symptom should lead to careful local investigation. Should we still be unable to determine the cause, explore the uterine cavity with the finger or curette. The scrapings produced by the latter may often afford the necessary information to secure the accurate diagnosis. This symptom should never be ignored nor treated tentatively. Should the patient be unwilling to submit to the examination necessary to ascertain the cause, it is better not to assume the responsibility of her treatment.

Vicarious menstruation indicates a discharge of blood from some other surface than the uterine endometrium. It may occur from the nose, ears, anus, or nipples, or as petechiæ or purpura beneath the skin. Its occurrence is readily understood when we consider the preparation for the menstrual flow characterized by increased vascular tension. The vessels which are weakest are the first to rupture, and the released tension prevents the rupture of the endometrial vessels, hence the absence of the genital flow. The symptom is recognized by its periodicity and the absence of regular menstruation.

1703 Walnut Street.

VULVOVAGINITIS IN LITTLE GIRLS. A CLINICAL STUDY OF 190 CASES.

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(*Concluded from page 784.*)

Case IX.—Lilly N., ten years old, was sent by me, on account of an obstinate catarrh of the stomach, to ——— Hospital, where she remained a few weeks. On returning home, a purulent genital discharge was noticed. On examination: Considerable œdematous swelling and redness of the labia, which were glued together by thickened pus, was found; erosions of the borders of the lips and around the introitus; there was also a copious purulent discharge from the vagina; buboes, gonococci were demonstrable. A little girl cousin, with whom she slept while visiting the house of an aunt in Brooklyn, was said to have contracted the disease from her.

Case X.—Anna M., two years four months old, came to the dispensary on September 8, 1902. No history of mode of infection. For two days past the child has cried when urinating; micturition was also more frequent; she did not care to walk; the child's linen was stained and sticky. On examination: Slight swelling and redness of the labia; the inflammation seemed to be principally around the orifice of the urethra. Inguinal adenitis; scanty purulent discharge from the vagina; gonococci were found in abundance; the pain in micturition increased in the next few days; the urine was cloudy and afforded a sediment on standing; under the microscope, numerous leucocytes were seen; no casts. The child improved in the course of the next four weeks; the swelling disappeared, while the discharge became scant and thin; the urine also had cleared up; the patient then disappeared from my observation and I did not see the child again until middle of April, 1903. There were no subjective symptoms at this time. On examination the vestibulum was reddened; no swelling of the vulva; inguinal glands were not enlarged; nor was there any disturbance in micturition; the discharge was at that time very scant and thin. Gonococci were not present in cover glass preparations, but could be demonstrated in culture media, decolorized by Gram's method. This case would easily have passed as catarrhal vulvovaginitis.

Case XI.—Marie S., four years and a half old, well developed and rosy cheeked, was brought to my office with the history that she had suffered from a copious vaginal discharge for a year; especially in the last few months, the discharge had been very copious; blood stains were frequently found on her linen; no subjective symptoms, but occasional headache and itching on the genitalia. On inspection the labia appeared very intensely inflamed, with numerous excoriations, the vulva was coated with copious purulent discharge, crusts were scattered over the labia and inner sides of the thighs; gonococci could not be demonstrated. Under the usual treatment the condition improved somewhat. A few weeks later, however, the child was brought to me, as there had been again considerable bleeding from the genitalia. On examination I found the swelling very much diminished; through the rather large orifice of the vagina a dark point presented, and on inserting the points of an anatomical forceps, I succeeded in withdrawing from the vagina a large closed safety pin; from the incrustation on the pin it was evident that it had been in the vagina for some time. Complete cure followed the removal of the foreign body.

Case XII.—Paula M., five years old, had suffered for some time with vaginal discharge and pain in micturition; no history given. On admission vulva looked red and slightly swollen; some mucopurulent discharge; spreads and culture showed a mixed infection; no gonococci.

Case XIII.[1]—Annie H., eight years old, had suffered for the last three weeks with frequent and painful micturition, and genital discharge; no further history could be elicited. On examination the labia appeared red and swollen; mucopurulent discharge from the vagina; an induration of the size of a hazelnut could be felt in the ditaris, which was enormously swollen; on its surface some superficial ulcers were located; the inguinal glands on both sides were considerably enlarged, but painless; no gonococci were found. Diagnosis: Ulcus durum; some few weeks later she presented herself with a roseolar eruption on the body, and multiple glandular enlargements; there were mucous patches on the nymphæ and also in the buccal cavity.

Case XIV.—Ida F., one year old, was always well until three weeks ago, when the right eye became inflamed; there were considerable redness, swelling, and lacrymation; these conditions gradually became worse, so that the eye could not be opened; eight days before I first saw her, redness and swelling of the vulva and right inguinal region were noticed. On examination, swelling of the vulva, especially the right labium majus, was noticed; on the inner side of which was an ulcus, covered with a fibrinous exsudate; the vestibulum was also swelled and reddened; there was also some seropurulent discharge; the glands in the right inguinal region were enormously enlarged; a similar ulcer was situated in the right cruroabdominal fold; some of the exudate of the labial ulcer was scraped off and sent to the board of health for examination, which reported the presence of Klebs-Löffler bacilli. Regarding the mode of infection, it is likely, though a bacteriological examination of the eye secretion was not made, that the affection of the eye was of diphtheritic nature and the virus was conveyed from the eye to the vulva; the child made a complete recovery.

The two following cases were seen after the reading of this paper:

Case XV.—Arthritis gonorrhœica complicating vulvovaginitis gonorrhœica in a girl not quite four years old; the joint effusion containing gonococci.

Sarah L., three years eleven months old, was brought to the dispensary, September 14th, with the following history: She had always been well, with the exception of a slight attack of measles when two years old; no history of rheumatic trouble. About ten days previous to her first visit, the child complained of pain in the right ankle and could not walk; two days later the right wrist became swollen and painful; no other joint was affected; the child was under the care of a medical attendant, who diagnosticated acute articular rheumatism.

Status on Admission: Well developed child; rectal temperature 101.5° F.; viscera of thorax and abdomen normal; she could neither walk nor stand on her right leg; the ankle joint of that side was considerably swollen and very sensitive. There was also very marked swelling over the right wrist joint. The swelling extending downward to the middle of the carpus; the skin was tense and reddened; there was excessive sensitiveness on attempt to move it; while examining the child a profuse, purulent, genital discharge was detected; there was an œdematous swelling of the vulva, and the inguinal glands were enlarged. On questioning, I was told by the mother that the little one had in the last four weeks occasionally complained of pain and burning in the vulva, but no importance had been attributed to it; the child slept with an older sister, a girl of ten years, who had suffered from a genital discharge for the last two months; the discharges of both sisters were examined and showed abundant gonococci, decolorized by Gram's method.

On September 23rd I aspirated the right wrist joint, and a few drops of a serous fluid were evacuated: this was inoculated on two tubes and one plate of ½ per cent. glucose-serum-agar. Inspected after twenty-fours, in thermostat at 36° C., no growth visible; after forty-eight hours both tubes showed growth, one having many, and the other a few, typical colonies of gonococci; spreads showed Gram negative biscuit shaped diplococci in pure culture; plate showed some characteristic colonies. Inoculation on ordinary agar failed to show growth after forty-eight hours in thermostat at 36° C.

Case XVI.—Ophthalmoblennorrhœa complicating vulvovaginitis gonorrhoœica in a girl two years three months old, with hereditary lues.

Sadie S. had been brought to my clinic about one year ago, suffering from mucous patches about the right corner of the mouth and on the hard palate; there were also condylomata lata around the anus; she had had snuffles since birth;

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[1] This case was presented before the Pædiatric Section of the Academy of Medicine on February 13, 1902.

she improved readily under antiluetic treatment. Some five months ago she contracted a purulent genital discharge; her mother, with whom the child was sleeping, suffering for a long time from "leucorrhœa." The discharges of both were examined and found to contain abundant gonococci, which decolorized with Gram; four weeks later blennorrhœa of the left eye; the conjunctival secretion showing gonococci; complete recovery from the ophthalmia.

The bacteriological work of the cases was done during the last year by Dr. E. P. Bernstein, assistant pathologist to the Mount Sinai Hospital.

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Freshness of the Interne.—The *Montreal Medical Journal,* for October, 1904, administers the following gentle rebuke to the house surgeon: House surgeons, we feel sure, will bear with us whilst we instruct them, not in any matter pertaining to medicine or surgery, but in the procedure which they should follow, when in the exercise of their functions they are brought into contact with members of the medical profession other than their own immediate chiefs. It is altogether pardonable that house surgeons should gain the impression that the hospital is the one refuge for the whole population in times of sickness. The records of hospital attendance give color to that view. But there is yet a remnant of the people which employs its own physician—a man of grave aspect it may be, whose capacity has been well tried, who by years of patient labor and fidelity has won a place in the family life which is not invariably accorded to the house surgeon when he makes his first visit upon the ambulance. When the hospital is called upon for an ambulance to remove a patient whose case has been diagnosticated, and the house surgeon accompanies it, his duties are chiefly those of an officer of transportation. If the family physician is present it is not necessary for the house surgeon to make a diagnosis anew, or to discuss in the presence of the porters the diagnosis which has already been made. Because the family physician is of a shy and retiring nature, he may not, and being wise, he will not openly resent the intrusion of the masterful young surgeon. He knows that omniscience in medicine does not imply an intuitive recognition of every member of the medical profession, and that it is hard for a house surgeon to comprehend that a man may be a physician and yet not wear a white coat in the streets. After a young man has attained to all knowledge of medicine and surgery, and has begun to employ it for the benefit of humanity, it yet remains for him to perfect himself in a knowledge of the relations which should exist between himself and those who are similarly engaged. The family physician in reality regards the interne as a raw and inexperienced youth. The house surgeon should think upon these things. Some day he may himself, when he has arrived at a wider knowledge, be called upon to fill the useful if humble rôle of the family physician.

DISEASES OF THE JOINTS AND THEIR TREATMENT BY MASSAGE.

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If we have obtained such satisfactory and rapid results by massage in sprain,[1] it is because we have hastened the absorption of the effused liquid. Traumatism of a joint or its neighborhood does not necessarily produce stretching or laceration. The fibrous capsule and muscular tendons may remain intact. Hueter affirms this and gives an explanation. The tissues present remarkable differences in their elasticity, and the synovial membrane is endowed with less elasticity than the skin.

Let us suppose that external violence forces the latter against the osseous surfaces which are hard, as for instance when somebody going up stairs knocks the knee against the edge of the stairs. Perhaps he receives neither wound nor ecchymosis. Epidermis and the tissues of the derma have resisted, but there is nothing to tell us that those of the synovial membrane have done the same; there is no evidence that a rupture, followed by sanguineous effusion, may not have taken place into the joint. Hæmostasis is not here so easy as in the surrounding connective tissue. Blood may flow for a long time through the artificial orifice produced by the laceration, before a coagulum has formed to stop it. Hæmarthroses are not at all rare after contusions. The blood acts as an irritant; it produces an increase and persistent disturbance in the secretion. Absorption is slow and poor. Forty-eight hours after the accident, the joint is filled with a mixture of coagulum and serous fluid. It is not easy to explain why frictions should be used only in sprains of the foot joint, as they have been practised for a very long time; why nobody, until lately, has thought of extending them to acute inflammations of synovial membranes of other joints of traumatic origin. In France and in Germany, as well as in this country, the absolute necessity of immobilization was formerly admitted in acute articular inflammations. "It is especially by immobilizing and by covering the affected limb with cold applications that the inflammation is successfully stopped," says Duplay.

According to Volkmann, we should, above all, in treating acute arthritis, fix the diseased joint and place the limb in a proper position. Duchenne devotes a whole chapter to the utility of this practice. "Rest is the prime and essential condition of an antiphlogistic treatment in organs submitted to constant movement," says he. Accordingly, immobilization was resorted to in established acute inflammation, in order to prevent the purulent transformation of the exudate. In contusions and luxations, rest and fixation were indispensable, prophylactic means. Surgeons, convinced that this method was not in the least harmful, were such enthusiasts for immobilization that many joints remained immobilized forever. This was, however, an unexpected result. Malgaigne, who distrusted anything new, and who feared all active intervention, was obliged to acknowledge the danger of too long a rest.

When one spoke of movements, it was always meant to counteract existing disorders, whose disappearance one was trying to cause; but those who thought of preventing them, did not for an instant suppose that it would be advantageous to begin massage at the very outset of the acute period.

In December, 1879, a very interesting discussion took place at the surgical society in Paris, on the therapeutics of joint diseases. Professor Léon le Fort laid down the principle that one should never think of movements, as long as inflammatory products existed. M. Armand Desprès, on Boyer's authority, added compression to the fixation; but he, no more than his colleagues, permitted movements as long as pain existed.

In an essay on massage, read a few years before in the Society of Medicine in Helsingfors, Professor Estlander also declared that friction is not indicated during the inflammatory period of arthropathies.[2]

In view of such established ideas, a certain amount of courage was needed to assume the attitude of a reformer; to manipulate a knee, when the inflammatory products were in full activity, to prescribe walking to people, who could scarcely do so, when physicians looked upon this practice as dangerous and expected from it irreparable damage. Metzger, of Amsterdam, possessed this courage, and if he had done no more than this, he would nevertheless be considered as the one who initiated scientific massage. We should, therefore, grant him the highest rank among those who have defended and popularized this method of treatment. His conviction must have been firm. Facts must have been very demonstrative, because his pupils have reproduced his doctrine without any alterations or any of those diplomatic attenuations which are often resorted to in order to secure the adoption of an unusual and a bold idea.

My countryman, Dr. Berghman, has not been satisfied with the summary mention contained in the account he published with the assistance of Dr.

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[1] *Traité théorique et pratique du massage.*

[2] Estlander. *Det therapeutiska värdet af gnidningar, sädana de användas i vär folkmedicin.* Finska Läkaresällkapets handlingar, 1872, No. 23.

Helleday about the matter. He has also published his personal statistics, which are preceded by a statement setting forth the most exact and complete representation of Metzger's doctrine about the subject then known. "Numerous dangers," says he, "threaten the wounded joints. All is not over when the acute inflammations no longer exist. What weapons have we to combat those dangers? None whatever; compressing, ice, local blood letting, derivatives and revulsives are used, and, when all these are of no use, one has recourse to the last means: immobilization. Without it, there is no use and by the aid of it one does not succeed in restoring to the limb its function. It is not a decisive, but rather an indefinite remedy, which we flock to as a last resort." Metzger proved that there did exist another remedy, and that in doing the reverse of what was admitted, one succeeded in curing. His pupils were surprised at seeing him massage joints attacked byacute inflammations, then return to passive movements and allow the patients to attend to their work. Thus we see that massage is a powerful antiphlogistic remedy. It causes the venous stagnation to disappear; it stimulates the absorption of that agent which is productive of the phlegmasia, and thereby reestablishes the normal state of affairs.

Whereas, thus far, surgeons tried to prevent the bed sheets from coming into contact with a joint, on account of fear of pain or still more serious consequences, one now performs effleurage, uses systematic extensions and flexions. When one prescribed absolute rest, we allow our patients to walk. Acute processes, instead of being an obstacle, become an indication for us. At this stage, the problem admits of an easy statement; for immobilization has not the advantages claimed for it, and it is neither necessary nor useful. If, on the other hand, it does possess advantages over the opposite method, the failures ought to surpass the successes.

Besides uncertain cures, one ought to find striking failures; suppurative arthritis in consequence of slight traumatisms, rendering amputation necessary; statistics comparable to those of Baudens. Most of the pupils of the school of Amsterdam were not convinced beforehand that these failures could not happen. It is very probable that at least some of them in the presence of some obvious failures of massage would have put the public on its guard. But such is not the case. Witte trembled when he saw Metzger's boldness, and he does not hesitate to say to his colleagues: "Do the same as he does." It is a peremptory argument.

Acute Arthritis.—The acute inflammation of the joints may be of spontaneous or traumatic origin. Besides *spontaneous* idiopathic arthritis, evidently of diathetic origin, rheumatic, gouty, or hæmorrhagic, there are other affections, less frequent, it is true, in which the general cause is less apparent, as the patients exhibit at no time rheumatic manifestations nor any occasional virulent disease. Traumatic phlegmasias may properly be classed next to sprains and luxations. Spontaneous or traumatic acute arthritis may be attended by (1) serous effusion, or serous effusion tinged with blood; (2) a fibrous exudate having already at the outset a tendency to form more or less firm adhesions about the articular surfaces and false anchylosis; (3) suppuration in the joint. Massage is indicated in the first two cases, but distinctly contraindicated in the third. It is also contraindicated in gouty effusion during the acute period.

Massage yields rapid and positive results. After the first séance, already the pain and tumefaction are often diminished, the absorption is started, and in a very few days a permanent cure is arrived at. A patient gets, for instance, a sprain, followed by inflammation in the articular synovial membrane. He is treated by derivatives or blood letting, while the limb is maintained in strict immobilization. This treatment may at times be successful. After a month or more the patient is able to walk. But does this mean that only the vague thought of a former traumatism remains behind; that there is *restitutio ad integrum?* By no means. This articulation has become the seat of less resistance. If a joint of the leg is affected, and the patient is compelled to assume the erect position for a long time, or has to walk a number of miles, effusion and œdema will be the consequences. Now you begin the same treatment and, it may be, again with success, but you will seldom be able to prevent relapses.

This pathological susceptibility, once developed in consequence of the accident, does not seem to be in accord with the idea of establishing a perfect cure. Probably lesions remain which are imperceptible to the physician and insensible to the patient, and which are compatible with the function of the joint. It is a general pathological law that the longer a disease lasts, the more it alters the organ affected. Massage, as regards sprains, cures sooner than any other method; consequently there is less chance for persistent organic changes and less chance for relapse, when one uses the limb. Even in tardy manifestations it gives excellent results.

Does massage render the joint less susceptible to relapses? Is it better than the old procedures? We are tempted to answer this question affirmatively, knowing that with massage it is possible to bring about, much more quickly, a cure than with any other method and to prevent the occurrence of untoward symptoms by intervening early.

Chronic arthritis. All sluggish joint affections might be called chronic arthritis. The serous effusions termed chronic synovitis or hydrarthrosis have to be ranged in this class. This is the case, too, with rheumatic and gouty arthropathies, as well as with tuberculous affections of the joint.

It seems advantageous to me, taking into consideration my particular standpoint as regards the convenience of application of massage, to distinguish these affections one from the other. Massage cures a certain number of cases of arthritis, whereas it scarcely ameliorates others. In some cases it is decidedly contraindicated, because its influence on the local condition is problematical. And it is in these by no means certain that it does not form a factor in contributing to serious general disturbances. I am referring to tuberculous affections of the joints, which I am about to discuss.

Let us for the present assume that we have to deal with a patient, who has not been affected recently by any acute disease of the joint, who is neither tuberculous, scrofulous, nor rheumatic, or at least one who has not presented any apparent rheumatic manifestations, a patient in whom we do not suspect any microbic infection in the synovial membrane or in the periarticular tissues. This patient is by no means beyond the reach of chronic arthritis. The chronic inflammatory affections of the joint may then be pronounced after typical acute attacks, or else they may progress from the onset quite slowly, insidiously and, so to speak, in a more latent way.

These facts, revealed to us by necroscopical examination of the affected joints, cannot be verified during life. They are derived by a process of induction and analogy. Direct observation proves that chronic arthritis may exist from the start without effusion, but there are cases, and they are the most frequent, in which the cavity of the synovial membrane is more or less filled with a serous fluid. These constitute the synovitis or hydrarthrosis of the classical works.

Among all joints, that of the knee is most frequently the seat of chronic synovitis. And statistics have shown that synovitis in this joint alone is as frequent as in all the others combined.[3] Being, as this articulation is, on account of its superficial seat, easily accessible to traumatism, it is also to the treatment by massage. Energetic and thorough massage presents here no difficulties. The coxofemoral joint is less exposed to traumatic inflammation through the protection afforded to it by its peculiar locality, and this is, on account of this circumstance, a rather rare affection. But if it is less exposed to external violence, it is also more difficult to massage. It can hardly be treated, except in children and very thin persons.

We ought to remember, when dealing with an iliolumbar affection, that we can sometimes have a sacroiliac arthritis. It causes difficulty in walking and a feeling of heaviness in that region. Pain or pressure in the joint is pathognomonic. As this articulation is deep and covered by a thick muscular layer, the pressure in massaging must be firm, in order to reach properly the seat of the disease. This arthritis is almost always mistaken for sciatica and particularly for myositis in the glutæus medius and the lower part of the quadratus lumborum.

There are cases of chronic arthritis, where the effusion is not confined to a single spot, but affects several at the same time. In these joint affections, as they are almost always accompanied by inflammations of the neighboring muscular system or even the viscera, it is rational to conclude that they are but local manifestations of a systemic disease. Under this title we shall study them later on.

Of the different varieties, which I have indicated, arthritis with serous or serofibrinous effusion, is best adapted to massage. There are very few arthropathies in which massage is not indicated. I will here only mention that it sometimes happens that an obscure affection of the leg originates from a circumscribed lesion of the joint, which careful examination might reveal to the touch.

I have had to treat several cases of this kind. This affection to which is given the name of *circumscribed arthritis*, is, as far as I know, entirely unknown in this country, as it was in France, too, before I spoke of it in my work on massage. I never have met with it in any joint, except the knee. It is a limited arthritis sicca, and is very rarely bilateral or symmetrical. The seat of the lesion is generally found near the lateral margins of the patella, less often beneath it. When these spots are palpated with slightly increased pressure, the patient will cry out with pain. There is, however, no effusion—and only a very little thickening of the capsule. The contrast between the objective and subjective symptoms is very striking. The former are almost insignificant; the latter are serious enough to cause difficulty in walking or to render it even impossible. Some of these patients are obliged to stay in bed, and in this case the diagnosis is of course always uncertain. Quite often other diseases, such as rheumatism, affections of the central or peripheral nervous system, etc., are held accountable, and the treatment employed is in conformity with these suppositions, without yielding, as might be expected, any results. I am convinced that sevral conditions described under the name of neuralgias or articular neuroses, are but cases of circumscribed chronic arthritis similar to the cases mentioned above. They are very easy to treat for the practitioner who knows how to recognize them. Rational massage, applied to the seat of the disease as well as on the always atrophied muscles of the thigh, is a sure means of bringing about a cure; it removes pain, functional weakness, and atrophy. The patient is all the more surprised at this result, inasmuch as the diagnosis was always uncertain and the prognosis given rather guardedly.

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[3] This is particularly due to its extensive area, being thus more exposed to traumatic influences as well as to microbic infection.

Distention of the capsule, which has lost a great deal of its elasticity, is very often produced if the effusion lasts a long time. The former does not always retract as the liquid contained in the articular cavity is disappearing. It remains soft and flabby, the lateral mobility being highly increased, and the joint has lost its firmness. As a consequence of this trouble, I have observed in the knee the anomaly named *genou de Polichinelle* (flail leg). An attempt at walking results in mobility of the joint in every direction and inability to stand on it. In order to enable the patient to walk, it becomes absolutely necessary to steady the joint artificially, by means of a solid bandage. It is especially in persons reduced by disease or age that these conditions are met with, but sometimes one sees them in young people. Massage increases the vitality and activity of the tissues. It is also necessary to extend its action to the muscles in the neighborhood. These, and particularly the quadriceps, are always more or less atrophied, and may be to a certain degree accountable for the laxity of the joint. Everything that increases their energy enables them to contribute to maintaining the articular surfaces together.

Not many years ago, in Paris, I had the opportunity to treat an eight year old boy, in whom relaxation of the tibiotarsal capsule had been produced in consequence of a fracture of the lower extremity of the tibia (a fracture which involved probably the articular cavity itself). When this child walked for some time, œdema about the joint was constantly the result. The act of walking was painful, and he continually twisted his foot. His physician was quite opposed to massage, and declared that the only result of such a treatment would be to cause a still greater slackening of the capsule. After treatment, extending over two months, I had the good fortune to see the function of the joint restored, and the boy could now walk as well as before. In cases of rather old relaxations of joints, I have also obtained pretty good results.

People who have been cured of a chronic arthritis are not always able to use their limbs at once. The articulation into which the effusion took place, if there was any at all, frequently remains painful, although nothing abnormal, neither in its shape nor in its consistence, can be detected. The cause of this is that not enough attention has been paid to the atrophy of the quadriceps femoris muscle. It has been supposed, and apparently with a certain amount of truth, that such a condition was only capable of producing fatigue and weakness in the limb, but that it could never be the cause of any real pain; this is a mistake.

In the cases I had to deal with, I have always simultaneously massaged the atrophied muscles. Recovery was complete and I have never seen any persistent pain. If patients, who at the beginning had been treated by others, came to me complaining of this trouble, I always started a treatment exclusively directed to the atrophied muscles. And after these had returned to their normal state, every complaint disappeared. It is easy to explain the cause of these pains. The osseous protuberances of the extremities of the adjoining bones, the capsule, the ligaments, as well as the muscles, contribute to maintain the articular surfaces in their physiological relations. If one of these forces happens to be suppressed or notably diminished, the articulation will become affected on the slightest movement. When atrophy of the muscles, for instance, takes place, the articular surfaces tend to separate and the ligaments are put on a stretch, so that the joint becomes sensitive to pressure and there is, so to speak, a series of slight sprains produced at every movement; the pains starting at one point of the joint radiate in all directions. These facts have to be pointed out, as I have had to treat several patients for this very trouble. The patients complaining of pains in the region of the knee[4] had all undergone a long and useless treatment, as though they had been afflicted with a chronic organic disease of this joint.

So far, we have spoken only of hydrarthrosis as developed under the influence of primary inflammatory irritation, however slight that may have been. True dropsy may, however, be produced by slow and continuous and almost painless effusion of serous fluid into the articular cavity; no reaction of any kind being produced. I have had the opportunity to treat some spontaneous hydrarthroses of the knee of this variety. The effusion had been produced within twelve to twenty-four hours, and the swelling had obtained its maximum intensity in the same length of time. Everything disappeared spontaneously after a week or fortnight. But recurrence soon took place. The attacks sometimes presented a relatively regular periodicity. In four of my cases, both knees were affected alternately; massage did not yield any better results than other medications, especially the sulphate of quinine, mostly administered in similar cases. In ordinary hydrarthrosis I have always succeeded in causing a disappearance of the liquid and nearly always in preventing its reproduction, probably by modifying at the same time the secreting surface. I am thus inclined to believe that in the cases we are speaking of we had to deal with some vasomotor disturbance. Chronic arthritis of this last kind may be produced in all joints. It is, however, most often observed in those of the legs and especially in the knees.

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[4] It is particularly this joint which is the seat of this affection.

Massage in diathetic and secondary affections of the joints; *rheumatic and gouty arthritis.* A patient, under the influence of traumatism, a cold, or any irritation, or without any apparent cause, gets up a phlegmasia in the femorotibial articulation. He is examined, his previous history is carefully investigated—and nothing is found. There is sufficient reason for supposing that the affection is idiopathic and accidental. If, on the other hand, during the examination, facts are revealed which might lead us to suspect rheumatism, gout, or scrofula; if the patient suffers from imperfectly cured gonorrhœa; then the conditions are no longer the same. If even the most careful analysis of the case shows but deformity and local subjective phenomena, a constitutional element exists which must not be neglected. Articular phlegmasia was in the first case the primary affection; it served as an indication for the therapeutical measures to be taken.

In diathetic and secondary arthritis, indication for our treatment is less clear. A general complex state of affairs exists, which is but vaguely understood. It is this uncertain, misty predisposition we have to combat. As long as it impedes the regular cycle of organic transformations, nothing will be accomplished. Massage effects a disappearance of the effusion in the knee and elbow, it restores the integrity of the joint and the functions of the limb, but for how long? Can a definite, or even temporary, result be obtained by it? Can we possibly do any harm with our manipulations? On the answer of these questions do the indications of massage depend. Observation alone will teach us whether rheumatism, gout, scrofula, tuberculosis, or gonorrhœa will not reverse the terms of the problem and render the expected reaction impossible.

Rheumatism affects the joints. The idea of diathesis has always been associated in the minds of nosologists with one of these organs, and so persistently that they attempted to extend it by synthesis and thus create arthritis, a general and more comprehensive disease than rheumatism. We shall devote no time to the study of the acute form; nobody would think of using massage in that, at least not from the start.[5] The chronic forms, however, demand our attention.

We might say, generally speaking, that arthritis of chronic rheumatic origin, whatever its form may be, almost never stands isolated. It is indispensable to take into consideration, on examination of a joint, the state and condition of the opposite joint. Without this mode of comparison, many changes in form and outline would be imperceptible and pass unnoticed. By this means alone we are able to appreciate definitely the variations of the effusion. Arthritis of the large joints attracts too much attention. Very often less important articulations are affected and their lesions are followed by phenomena not always easy to explain. I have in this respect particularly the peroneotibial and acromioclavicular articulations in view.[6]

There often exist cases of arthritis attended simultaneously with effusion into the knee, shoulders, and other big joints, or even into the neighboring synovial bursæ. The same remark may be applied to the phalangeal articulations of the hands and feet; to the metacarpal and metatarsal articulations of the fingers and toes. It would be erroneous to suppose that these last affections are easily cured. On the contrary, they are often very obstinate to treatment. The diagnosis is sometimes difficult, owing particularly to the difficulty of getting at them; and these cases of arthritis often attract attention only when the symptoms are rather pronounced. In order to excite pain, it is sometimes necessary to exercise a firm pressure and try to go deep into the joint. Before beginning to work on the articular effusion, one ought to examine, too, most carefully, the neighboring muscles and tendons, whose sheaths pass the joint. This is the case also with the synovial bursæ in the neighborhood, and particularly those in the fossa poplitea, as well as the one situated beneath the deltoid muscle, this being able to constitute by itself and alone a quite serious disease and one of sufficient importance to merit treatment in a separate article; particularly as it is very little known in this country, and is almost always mistaken for a disease of the joint itself. If the muscles are affected or atrophied, which is rather often the case, they must be massaged most energetically and perseveringly; otherwise the benefit derived from the treatment of the joint is of little value. Massage is only useful in articular rheumatism, where the joint presents definite symptoms and these remain there; it is useless, as in muscular rheumatism, when the pains are vague or erratic. When several joints are affected, the séances get very long and fatiguing to the physician. The patients suffer and complain, and nothing is accomplished for a rather long time. It is often necessary in this case to give two séances a day and treat one part of the affected joints in one sitting and the other in a second. Moreover, we must never forget that rheumatism is a general disease and that the effects of massage are purely local. It is then desirable, in order to secure a more permanent result, to supplement massage—simultaneously or, better, when the massage treatment is over—by a general treatment in shape of thermal baths in one of the springs noted for this purpose in this country or in Europe.

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[5] Only when the acute or subacute effusion shows no tendency to become absorbed or even when we may believe that after administration of salicylate of sodium for some days the toxic quality of the microbes may be at least to a certain degree exhausted, we may try massage. In the beginning we proceed with a great deal of gentleness and feel our way, as it were.

[6] These two joints deserve, in my opinion, special mention. The effusion is in the first one always of rheumatic origin; in the last one it is mostly. The joint is always very painful, owing, as I believe, to the very little development of the capsule in relation to the size of the joint. The extremities of the respective bones are here in immediate apposition, as it were. On account of this circumstance the liquid accumulated in the joint is under high pressure, giving, it seems to me, more rise to pain than it would do if the former (the capsule) were more extensive Owing to the same condition massage is also far from being easy to perform here, and requires a great deal of judgment.

The application of massage in the course of a rheumatic affection is often interrupted by the occurrence of relapses of varying intensity. Sometimes the joints get swollen and become a little sensitive to pressure; that is all. It is useless then to interrupt the treatment. But if one has to deal with real acute or subacute attacks, massage ought to be stopped and salicylate of sodium administered for some days before the massage is taken up again. Sometimes the crisis seems to produce a favorable modification in the way in which the joints react. The cure seems to be more quickly obtained now than before.

Gout.—In gout I use massage only when the attack has subsided and the arthritis, or tenosynovitis, or bursitis with effusion remains and shows only very little tendency to become absorbed. In the toes I have sometimes succeeded in causing the rapid disappearing of the tophi when the latter were neither hard nor old.

Sometimes, and even in comparatively fresh cases, gout does not, as it is generally known, provoke—that is a rule in the chronic one with asthenic character—what I may call a typical attack. It is in uniformity with my long experience to rather abstain here entirely from the application of massage. Any manipulation, sometimes even a very gentle one, is liable to stir up the disease anew, and nothing is gained in the end after all. Only in those cases, when, after thorough examination, you find that the affection is complicated with rheumatism and that the rheumatic principle is the prevalent one, not a very rare occurrence, are you allowed to use massage. Great benefit is often derived from it in such cases.

With some people it is difficult to tell whether we have to do with rheumatism or gout, because the symptoms are so indefinite. It is better in these cases to assume that we have to do with gouty diathesis and act accordingly.[7] Next to articular phlegmasias, which may be connected with rheumatism or gout, I have placed *arthritis deformans*. Are the cases of this class connected with the conditions indicated? This cannot be answered affirmatively. Their course is essentially chronic; massage is of no use in these, except in so far that it diminishes the muscular atrophy, which characterizes the disease. Sometimes, too, massage may be with profit applied in the accompanying effusion of the joints, probably of rheumatic nature, the affection in question—in some cases evidently of rheumatic origin—not being always—of a dry nature—contrary to what is generally maintained.

The manipulations employed in chronic arthritis are generally effleurage and friction. Tapotement is only used when the arthritis assumes a torpid character and when it is necessary to provoke reaction and revive the vitality of the tissues. Mr. Kleen advises thorough friction from the very beginning on that part of the joint which is nearest the centre; in this part the absorption of the products divided through massage is said to be easier and quicker than in others. In order to alleviate the irritation sometimes following frictions, one ought to wind up with effleurage. It is also aided by passive movements.

Hyperplastic Granular Synovitis (White Swelling).—There existed at one time among pathologists a manifest tendency to invoke scrofula as that indeterminate and convenient affection which one appeals to when there remains no other cause for explaining the evolution of the disease. Most phenomena which were formerly thought to be connected with scrofula are due to tuberculosis and the invading and sluggish lesions are of bacterial origin.

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[7] Sometimes I have used massage with a diagnostic view in order to find out whether I had to deal with gout or rheumatism, and have often in this way, from failing reaction or not, been able to decide the question.

I think that non-interference on the part of massage would be the best procedure to adopt here; it could be of no use to favor the absorption of a product containing a specific element, as the latter exhibits only too much tendency to invade the organism.

Gonorrhœal Arthritis.—This class of arthritis has not been studied much as regards the influence of massage. We do not entertain any hopes of success by the aid of massage in this affection, on account of its bacillar origin, as long as the discharge persists. It is a better policy to advise the patient to have recourse to our treatment later on, when the cure of the urethral discharge is complete, and the spontaneous absorption of the liquid is somewhat tedious. We then do not need to fear any further invasion of the gonococcus. In proceeding in this way I have often had quite satisfactory results.

122 EAST THIRTY-FOURTH STREET.

Automatic and Intelligent Activities.—Marshall, in the *Journal of Nervous and Mental Diseases,* for September, 1904, concludes that activities which do not involve distinguishable modifications of instinct action will have psychic correspondents of so unemphatic a form that they will belong mainly to the field of inattention and not to the field of attention. On the other hand, activities which do involve distinguishable modifications of instinct action will have emphatic psychic correspondents which will be in the field of attention, and they will appear as intelligent activities. On the physical side, therefore, we have instinct actions fundamentally of one type, running through all minor and major nervous systems, and producing instinct action of the whole organism. When such actions are normal they are known as typical, but when some minor instinct action becomes emphatic the total instinct action of the organism is modified, and we have the phenomenon of variation. On the psychic side correspondingly we have what may be called instinct feelings fundamentally of one type running through all minor and major psychic systems and producing what may be called instinct feelings within the whole of consciousness. But when some minor instinct feeling becomes emphatic then the total instinct feeling within consciousness is modified, and corresponding with physiological variation we have the phenomenon of intelligence.

NOTES ON SOME UNUSUAL FORMS OF INFECTIOUS DISEASE OF THE CENTRAL NERVOUS SYSTEM.*

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AND

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The first of these cases is an example of an unusual form of disease, characterized clinically by a progressive impairment of sensation and motion, and spinal reflexes, spreading steadily upward, so as to cause death in ten weeks, and, anatomically, by a complete degeneration of the spinal structures, neither inflammatory nor anæmic in origin.

CASE I.[1]—Male patient, aged thirty years; married; a hotel waiter, with a history of good health and habits; not syphilitic, so far as known.

The disease began to show itself about February 1, 1903, the first symptom being numbness of the toes, soon spreading to the feet and ankles, and quickly followed by weakness of the leg muscles. A few days after this, while bathing his feet in hot water, the patient found himself unable to recognize the temperature distinctly. He continued at work for a fortnight, but with increasing difficulty. One day he fell on the street, and two days later he gave up altogether and applied for admission to the hospital.

The examination made there on February 25th, states that his right leg was wholly paralyzed, and the left almost wholly. The muscles were flaccid. The sensibility in all modes was seriously impaired in all parts below the waist, and at the upper level some pain was felt. This impairment was greatest for the sacral nerve areas, especially the lower two, and it extended higher on the right half of the abdomen than on the left.

The knee jerks and Achilles reflexes were obtainable, but only very slightly on the right side. The plantar reflexes were normal, but the cremaster was absent. The bladder was paralyzed and disturbed at the time of entrance to the hospital, and the rectal sphincter also. Above the waist, motion and sensibility were normal. The mind was clear. The thoracic and abdominal viscera were normal, the spleen was not enlarged. The white blood count was 19,000. The urine was of normal color, acid, sp. g. 1,022, free from sugar and bile, but containing the slightest possible traces of albumin; urea 1.7 per cent. The sediment contained a few small round cells and a small amount of pus, free and in clumps, but no blood and no casts. In spite of the absence of a syphilitic history the patient was given iodide of potassium and mercury.

Between this period and April 17th, a little more than ten weeks later, when the patient died, the signs indicated an uninterrupted extension of the disease upward, associated with the irregular fever, usually about three degrees lower in the morning than at night, frequently reaching 103° and occasionally 104°, while the pulse rate varied from 80 to 120 and was also higher at night.

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* Abstract, read at the meeting of the Association of American Physicians.

[1] We are indebted to Dr. W. W. Gannett, in charge of the case, for permission to utilize his records.

By March 7th, that is about two weeks after entrance, the grasp of the hands had become feeble and the impairment of sensibility had reached the area of the eighth cervical nerve, but at that date the arms could still be moved freely at the shoulder.

On April 7th, that is, one month later, he was unable to raise the arms above the head and the anæsthesia was complete from the level of the third rib in front. At this date also the respiration became irregular, and shortly afterwards it was purely abdominal.

On April 11th, the patient became for the first time dull and half-unconscious, and showed some difficulty in swallowing and speaking, but death did not occur until six days later.

The leucocytosis and the cystitis or pyelitis both increased proportionately to the growing intensity of the disease. Thus, on March 4th, it was noted that during the past week, the white blood count varied between 16,000 and 19,000. On March 10th, it was 28,000; on March 12th, 33,000. On this same date the urine showed considerable pus, occasional casts with blood adherent and renal cells, and also small amounts of free blood. The amount of albumin in the urine, however, was still small, but from this time onward it increased. On March 10th the patient began to pass blood with the stools and to suffer from a bed sore on the buttocks, both conditions being due presumably to disordered innervation. The temperature, pulse, and respiration all became more elevated toward the last, and finally, on April 17th, râles appeared in the chest and trachea, and he died unconscious. During the week before his death he had had a number of slight chills.

The post mortem examination was made by Dr. Wright and Dr. Richardson, and with their kind permission we make the following abstract from their notes, covering the condition of the nervous system. As regards the rest of the examination, it may be said that the kidneys showed signs of pyelonephritis and that the mucosa of the colon was, here and there, excoriated. The spleen was normal.

"The pia of lumbar and thoracic regions is opaque and shows all along its course in these regions a slight amount of yellowish white, soft, fibrinous like material. In the cervical region this is not apparent. The vessels of the lumbar and thoracic regions are somewhat injected. Those of the cervical region are not. On section through the thoracic region of the cord, its tissue is soft, opaque, and homogeneous in appearance. Culture on blood serum from the heart and spleen proved sterile. Cover glass, from fibrinous material of cord, pia shows no bacteria and no leucocytes. The brain was hardened in formalin and cut in several sections, but no lesion was discovered. After hardening in formalin, the spinal cord shows the lumbar, and greater portion of dorsal region transformed into mushy material with loss of markings. In the upper thoracic region and lower cervical regions, cavities with softened contents are present in the substance of the cord."

Sections of cord, prepared with Heller's method for myelin, show extensive destruction and disintegration of cord, most marked in the lumbar and thoracic regions. At these levels the cord is extensively or totally transformed into an indefinite mass of disintegrated myelin and detritus. In places there is infiltration, with large epitheloid cells, and these are also present around the nerve roots. There is no infiltration with leucocytes or small round cells.

Further sections were subsequently made by Dr. Waterman, an examination of which justifies the following additional statements:

The lower dorsal and lumbar levels, stained by Weigert macroscopically, show practically no myelin except in some of the posterior nerve roots. The cord here has wholly lost its structure, there being no demarcation between grey and white matter.

Microscopically there is no trace of normal cord structure left, but instead of it a mass of more or less closely packed fat granule cells with newly formed blood vessels. The fat granule cells are round, mononuclear bodies of varying size, some being apparently swelled with drops of absorbed myelin, which at times stains faintly. Occasionally, these cells appear to be proliferating from the capillary endothelium in various stages of cell division. These cells are also seen infiltrating the pia, especially around the nerve roots, causing considerable thickening of the membrane. The anterior roots are wholly degenerated, but some of the posterior roots appear normal and stand out in striking relief. The central canal of the cord is obliterated. The blood vessels are filled with blood, but not abnormally so, and the vessel walls appear normal. No infiltration of leucocytes is seen around the vessels.

The sections from the upper dorsal region, stained by Weigert, show the presence of myelin, though the disintegrated appearance of the cord is apparent macroscopically, and the grey matter is indistinctly made out. Microscopically, the white matter is made up of degenerating fibres in various stages of swelling and disintegration. There is a beginning invasion of fat granule cells of the type found in the lower levels. The anterior horns still show ganglion cells, though many of them are degenerated. A few cells are also left in Clark's column. Many of the nerve roots are degenerated.

The seventh cervical level shows distinct demarcation of the grey and white matter, the areas of degeneration being limited to the posterior and lateral traces. Macroscopically this level resembles the picture of combined sclerosis seen in pernicious anæmia, etc. In the centre of the degenerated area of the posterior columns, there is a round cavity 3 mm. in diameter.

Microscopically, the degeneration is limited to these tracts. The fat granule cells have not made their appearance. The anterior horn cells show no marked degeneration with the stains used.

The central canal is normal. The nerve roots show no degeneration. The pia shows no infiltration with round cells. Higher levels of the cervical cord show only a degeneration of the posterior columns, most marked in the column of Goll (secondary degeneration).

At no level of the cord is there any evidence of an inflammatory condition, nor is there anywhere evidence of impaired circulation.

The process then, is one of degeneration of rather an acute form, and is not due to vascular change. Such a degeneration could be caused only by some toxic substance, but, in its form and history, it represents certainly an unusual type of disease. It is, of course, possible that the toxic material, which caused the spinal degeneration, was formed on the inflamed surface of the urinary tract, but this is unlikely in view of the trifling nature of this inflammation at the outset. While on the other hand, it is easy to explain how the myelitic process should have given rise to the urinary change.

Reference has been made to the fact that the degenerations at the upper level of the diseased process were confined to the posterior and lateral tract areas, and that they resembled the degenerations found in connection with pernicious anæmia and other forms of malnutrition, and occasionally independent of these disorders. It may be added that this resemblance is the greater for the fact that all along the margins of these degenerated areas the familiar perforated card appearances are seen, due to the subacute, lateral extension of the process, and, literally, to the breaking down of nerve processes.

In the *Review of Neurology and Psychiatry*, for June, 1903, a case is reported from a clinical standpoint closely resembling the one here given, but anatomically, it was characterized by striking inflammatory, that is vascular, disease.

Our knowledge of the infectious processes as a whole is so incomplete that we are far from wishing to assert that a fundamental distinction is to be made between the cases where signs of inflammatory changes are present and those where it is lacking. Even clinically, an ascending myelitis of so slow a course as this is rare, but another instance has just come to our notice in a case seen in consultation at the Massachusetts Charitable Eye and Ear Infirmary, and this is the more noteworthy from the fact that the onset of myelitis was preceded by an intense optic neuritis, with unusual swelling of the optic papilla, attended at first by few and only indefinite indications of disease elsewhere.

Although this case is of an unusual sort, yet it is, of course, to be recognized that diffuse spreading myelitis is by no means unknown clinically, and that, as regards the character of the lesion, this sort of degeneration without inflammation, strictly speaking, is clearly treated of by Schmaus in his masterly work on the diseases of the spinal cord, as one of the processes of infectious origin. It is a matter of much doubt, as a matter of fact, whether a known inflammatory lesion of this kind even implies the action of a special agency. It is rather one of the modes in which the nervous system responds, it may be, to many toxines. It is very difficult, in fact, to excite inflammatory reactions in the spinal cords of animals, and nothing is more striking than to see in how many different ways the nervous systems of different individuals respond to morbid influences which are apparently identical.

Case II.—The winter of 1902-3, during which the illness of the patient just spoken of occurred, was marked by the occurrence of a variety of forms of infectious disease of the nervous system of different sorts and in unusual number.

In the same ward with the patient already referred to, there lay a patient who was ill for a number of months with a progressive motor paralysis, without sensory disorders, which spread upward so as to involve deglutition and the motions of the face. The temperature and pulse were elevated and there was a moderate leucocytosis, but the case terminated in recovery at the end of six months. The spleen was not enlarged. No cause for the disease could be made out.

On the opposite side of the same ward, was a third male patient who presented symptoms of motor weakness with tenderness on deep pressure over the calf and arm muscles, which were at first attributed to multiple neuritis of alcoholic origin, although the knee jerks were lively, and a slight ankle clonus was present.

This diagnosis seemed to be strengthened by the fact that some of the muscles of the hands became more and more atrophied and that a peculiar eruption occurred on the skin, associated with sweating. Here also the white blood count was quite high, running eventually to about 30,000.

Presently, the symptoms took on a distinctly cerebral turn and quite distinct signs of meningitis were developed. A lumbar puncture showed a sterile fluid containing, however, many lymphocytes. Finally, the patient developed delusions, although not of a sort usually seen in alcoholic poisoning, and eventually had to be sent to a lunatic hospital, where he has remained ever since, free from acute disease, but demented. The temperature was elevated throughout the acute portion of the illness, reaching 103° and 104°.

There seems to be no doubt that one and the same toxic influence may cause various forms of nervous disease, but it is not common to see the different segments of the nervous system successively attacked. For this reason I desire to put on record the case of a man, thirty-two years of age, characterized by the occurrence of a well marked multiple neuritis of rapid onset, occurring after exposure to a severe wetting and followed, during convalescence, by headache, temporary hemiparæsthesia, and convulsions, with double vision and high temperature. This seems without question attributable to an encephalitis, and the diagnosis was borne out by the fact that the eventual history of the case showed complete recovery, though the double vision was very slow to pass away.

Finally, I desire to record briefly three cases, apparently of poliomyelitis, in which the onset was remarkably slow, and the distribution of motor palsy rather unusual.

The subject of the first of these cases was a child of nine years. The first symptom was weakness of the arms, and this was complained of for a day before anything else developed. Then she began to fall down in walking and, on the third day, she was unable to go up stairs, and on the fourth day, she was unable to walk. The subsequent history was that of a case of poliomyelitis with lesions in multiple form.

The next case was that of a child of eleven years. Here there was a progressive onset of motor symptoms, preceded by high temperature (105°) of several days' duration, and since the child had seemed tired and half sick for two or three weeks beforehand, it seemed quite possible that this period constituted a prodromal stage. The progressive involvement, first of the legs and then of the arms, seemed to indicate an infection of the Landry type, and yet its occurrence during August and the eventual recovery of the arms seemed to imply a diagnosis of poliomyelitis.

The third case was that of an unmarried woman of thirty-two years, who had a progressive impairment of the motion of the legs for a month and who, during the two following months, lost all power in the arms, hands, and face, and had severe headache and vomiting, although she was at one time unable to move the lips, yet she had no disturbance of micturition nor of sensibility.

The further history of the case recalls Case II of this series, but although she improved in many respects, yet, in an examination made fifteen years later, she was found to have a complete toe drop, a waddling gait, and, what is most remarkable, a typical Argyll Robertson pupil on both sides. The knee jerk was absent on the left side, but preserved on the right. No other signs of tabes were present.

New President of Trinity College, Hartford.—Dr. Flavel S. Luther was formally inaugurated president of Trinity College on October 26th. He was elected last April and formally assumed his new duties at the beginning of the college year, last month.

PARASITICAL ASSOCIATIONS.

By F. H. SAWERS, M. B.,

ROCHESTER, N. Y.

The very unanimous way the Monroe County Medical Society supported a resolution, introduced at its recent annual meeting, for the correction of abuses existing in the profession relative to lodges, accident assurance companies, and establishments created to canvass and placard manufacturing plants, gives me encouragement to enlarge somewhat on what was said at the meeting with the hope that it may be an added stimulus to an already fast advancing movement for "cleaning house," as was so well said by Chief Justice Peter B. McLennan, of the Appellate Division of the Supreme Court of New York State, in a speech at a dinner following the meeting, and the remark made by Henry W. Conklin in response to the toast, The Bar Association. "There is an element in the learned professions not to be exchanged for dollars and cents" might also be quoted.

It is well known that there are thousands of people in Rochester, which has a population of about one hundred and seventy-five thousand, ten thousand is not putting it too high, who obtain their medical services for one year for a dollar. Is this not escaping one's obligation to society? Why should there be such discrimination shown to the knowing ones who join these associations and pay nothing more than a conscience satisfier when often the poorer paid workman, who is not a member, pays to his medical attendant the usual fee? Is this the way to work for the elevation of man towards good citizenship?

There is no warrant for associations banding themselves together and incorporating for such a purpose. Few of their members are unable to pay. And is such a purpose to be fostered by men belonging to the medical profession? Those who lower the standard of their profession are undoubtedly actuated by the dollars and cents it brings into their coffers, from the quick acquaintance obtained, and the opportunity that opens for gaining other members of the associate's family as patients, whom they can charge the usual fee. This is expected to offset partly the services rendered the member.

If it is right for one member of the family, all the members should be included in the scheme. It is certainly not philanthropic—and of all the professions none excels that of medicine in its devotion to mankind—and no person has ever yet been refused succor by the profession, or ever will.

Think of accident assurance companies, with a quarter million dollar deposit with the insurance department, soliciting contracts to treat accident cases occurring at the plants of their policy holders for a price so small that they feel obliged to say that the smallness of the fee schedule will be compensated for by the amount of business they will be able to send you. A few of the prices are as follows: fracture of femur, reducing, dressing, and after-treatment, fifteen dollars; amputation at knee, with after-treatment, eighteen dollars; anæsthesia, one to three dollars; and passing catheter, fifty cents.

It seems hard to believe that any one could be found to sign such a contract. Surely no one who felt himself competent to treat such injuries named would ever be induced to affix his signature thereto.

As for the establishments giving sick or wounded persons treatment for one year, for a dollar, it goes without saying that they have reached the limit and one almost feels like crying to the gods, and asking, Is it so? Well, yes, it is down in plain figures.

But the question, can these abuses be eradicated, is asked. Certainly they can. Most of the men doing this work will, if the matter is placed plainly before them by the medical societies, stop the practice and be glad to have a helping hand to get out of a business they are ashamed of, and which they never would have gone into, except for the fact that they knew others were doing likewise, and they considered it foolish to let go what they thought was their opportunity; not realizing that opportunities obtained at such a sacrifice are too costly for consideration.

The profession should work beyond the topics here spoken of towards a concerted effort to obtain legislation that would give the licensing body power to revoke a license for cause. This would purge the profession of its dishonorable licensees and destroy the strength of the institutions of prey now scattered everywhere.

The Nu Sigma Nu Fraternity.—Dr. William Walter, council secretary of the Nu Sigma Nu Fraternity, assisted by Dr. Robertson, of the University of Pennsylvania, installed Alpha Beta chapter of this fraternity in the University of Maryland on October 10th. The installation took place in the private parlors of the Belvedere Hotel. Among the charter members are several of the professors of the university. This fraternity numbers among its members some of the most prominent medical men of the world. It has affiliated clubs in a number of the educational centres of Europe, the latter having been installed by Dr. Walter on his recent trip.

Our Subscribers' Discussions.

A SERIES OF PRIZE ESSAYS.

Questions for discussion in this department are announced at regular intervals. So far as they have been decided upon, the further questions are as follows:

XXXIII.—How do you treat varicose veins of the leg? (Under adjudication.)

XXXIV.—How do you treat internal hæmorrhoids without an operation? (Answers due not later than December 1st.)

XXXV.—What is your experience in the therapeutical use of yeast? (Answers due not later than January 16, 1905.)

Whoever among our subscribers (with the limitations mentioned below) answers one of these questions in the manner most satisfactory to the editor and his advisers will receive a prize of $25. No importance whatever will be attached to literary style, but the award will be based solely on the value of the substance of the answer. It is requested (but NOT REQUIRED*) that the answers be short, if practicable no one answer to contain more than six hundred words.*

Only subscribers to the NEW YORK MEDICAL JOURNAL AND PHILADELPHIA MEDICAL JOURNAL *(including regular and volunteer officers of the Medical Corps of the United States Army, Navy, and Marine Hospital Service, commissioned or under contract) will be entitled to compete, and all persons known to be engaged in medical journalism are disqualified. This prize will not be awarded to any one person more than once within one year. Every answer must be accompanied by the writer's full name and address, both of which we must be at liberty to publish.*

The prize of $25 for the best essay submitted in answer to question XXXII has been awarded to Dr. William A. Groat, of Syracuse, N. Y., whose article appears below.

PRIZE QUESTION NO. XXXII.

THE TREATMENT OF INSOMNIA.

By WILLIAM A. GROAT, M. D.,
SYRACUSE, N. Y.

We cannot properly speak of the diseases of sleep, for sleep is a function, subject to disorders like other functions. Insomnia may be absolute or partial, and in the latter case sleep is usually fitful and troubled, in no way satisfactory, and does not meet physiological requirements. Sleep is a nervous phenomenon, the higher nerve centres obeying the general rule of living cells in that there is a rhythmic rise and fall of irritability. Possibly there is a sleep centre; or the sense of drowsiness may be due to the numbing influence of waste products in the blood on the cortical cells. There is a slight cerebral anæmia, but it is a result rather than a cause of sleep. Other functions are at rest, the muscular system is relaxed, but nutritional and reconstructive processes continue.

The amount of sleep necessary to an adult cannot be definitely stated. Women usually require more than men, as well as all whose work is mainly physical. There are many men who seem to require five or six hours' sleep, while others demand twice these amounts. Habit, age, and environment cause wide variations in the same individual during adult life.

The length of time a human being can live without sleep has been placed at three weeks. Many patients will insist that they have not slept for weeks, and yet appear to be in good physical condition. In these cases there are at least periods of a drowsy, somnolent nature which are in a way equivalent to sleep.

In writing of insomnia it is not my purpose to cover the wakefulness of organic brain lesions or that caused by pain. In fact, it will not be possible to enumerate all the host of causes, immediate and remote, of disordered sleep. However, we may group them as follows:

1. Neurasthenic and hysterical.
2. Vascular, including the anæmias.
3. Toxic.
4. Autotoxic.

Under this last class comes the wakefulness due to uræmia, gouty conditions, and acute febrile processes.

The toxæmias of malaria, syphilis, lead poisoning, etc., make up class three.

Vascular changes and organic heart lesions, giving rise to tense arteries and cerebral congestion, cause insomnia. Anæmia and chlorosis often cause insomnia at night and a somnolent condition in the daytime.

The treatment of these classes is primarily that of the fundamental cause, and aside from an occasional hypnotic in selected cases this is all that should be done, except in the hopeless chronics whose last days should be made comfortable. It is the first class, however, that makes up the great majority of cases and to them we shall give greatest attention. In these neurasthenics there is the usual cause of overwork or worry, or both. We find what is a complex of symptoms, of deranged functions, insomnia being one of a group. In these cases there is usually troubled, fitful sleep of a few hours at the best. There is often drowsiness during the day, but when night comes the mind is full of activity, and there is a rapid train of tumultuous thought. These thoughts are often bizarre and deranged, much like the dreams the patient is tortured with when he does sleep. This type is, of course, found principally among brain workers, for the honest toiler of the soil sleeps sound and long. Then there is a class who have insomnia from bad habits. Perhaps they were inclined to a period of wakefulness after going to bed and took to reading in bed. Now they must read for hours before sleep comes. Overeating or eating indigestible food at night causes anypnosis, though more often parypnosis.

The treatment of these cases should be cautious. More than the simple sedatives should be used only when other measures fail. These patients, abusing themselves by overwork and improper diet, and taking no care of themselves in general, wish "something to make them sleep," but are not willing to regulate their lives in any way or do one single thing but take their hypnotic. Put chloral into such a patient's hands and he acquires the habit, for the cause of his insomnia is not removed. The causes are to be searched for and removed or mitigated. A change of scene, with the dropping of business or the cares of home, is often imperative. These patients should be sent to a lower altitude, and in summer to a cooler atmosphere.

A majority of them are women, and the home should be left in charge of some one in whom the woman has confidence. With men, business should be adjusted and closed as far as possible. These patients should be put on a regular and systematic regimen. After a cold shower in the morning and a good breakfast the exercise of the day, as far as possible in the open air, should come. This exercise should be finished in the forenoon and should be light. It is wrong to add physical fatigue to brain fag. The principal meal should come at noon, and the afternoon be spent in light and simple recreation, and a light supper eaten. The diet as a whole should be simple and digestible and fairly general in character. The patient should be in bed by 10 p. m., after a hot foot bath, or a tepid full bath and a cold sponge to the spine. A cup of hot milk or broth should be sipped in bed. These patients usually sleep best alone. Nothing is less conducive to sweet repose than a bedfellow who promptly falls asleep and perhaps snores. At least you fear he will and are angry and jealous. The room should be cool and well ventilated and the bed made exactly to the patient's liking. Massage and the various rubs are often very helpful.

If drugs are needed, the simple sedatives often suffice. Hyoscyamus was used for promoting sleep by the Arabs long ago. In all the old Arabic tales the beautiful maidens are aroused from their long sleep with great difficulty, and promptly spit out the tablet of henbane that caused all the trouble. It does not work as well nowadays. Its alkaloid, hyoscine, in minute doses, is useful to a certain extent, principally in the insane. It may be combined with the bromides, which are really useful. The bromides are not true hypnotics, but induce the somnolent state by lowering the nervous irritability, and for this reason should be given in fair sized doses after each meal and at bedtime. The aromatic spirit of ammonia I have found very helpful, especially with hysterical women. It may be combined with the bromides with benefit. It has no hypnotic action, but aids by its steadying effort. In many cases there is a lack of tone in the unstriped muscular fibres, and then ergot hypodermically, as advised by Dr. Alfred T. Livingstone, is decidedly helpful. He notes several cases in a recent paper, and he uses fairly large doses, with dry cupping to the spine, and explains the hypnotic effect as not due to any true hypnotic action, but to a beneficial effect on the cerebral circulation. When there is extreme exhaustion strychnine works beautifully, giving just enough stimulation to those too tired to eat or sleep.

These simple drugs, with a good suggestive atmosphere following relief from the pace that kills, will take care of many cases.

But there are many cases that will not yield to such simple measures. Sleep must be induced. Some true hypnotic must be used. Then I believe in giving enough—no tantalizing. The patient is to sleep, and sleep all night. Afterward we may not need to give another dose or we may have to diminish the dose gradually, but primarily the object is to beget sleep and at once. Chloral hydrate is the most reliable hypnotic we possess. It produces sleep in a short time and its effect is lasting. It is depressing, and its habitual use is a dangerous possibility. There are other drugs of the same class which are less objectionable, but either they are too slow in action or the effect is transitory, as compared with that of chloral. A combination of two or three of these works better than any one, however, and for this reason I so combine them. My usual method is to give a bromide with aromatic spirit of ammonia during the day, and at night a mixture of trional, two parts; sulphonal, two parts; and chloral hydrate, one part, well diluted. Usually this is to be taken in three parts, at intervals of thirty minutes if the patient is awake. The first third is taken just before beginning to disrobe. The dose depends entirely on the patient, and can be measured only by experience. I usually begin with fifteen grains of the mixture in each third of the entire amount, and the second dose usually brings sleep. But I insist that, within reason, the dose should be large enough to do the work. If chloral has been taken previously, much larger doses are needed. In the insomnia of acute alcoholism large doses are needed. Apomorphine is useful in these cases of alcoholic insomnia, and sparteine should be used to guard the heart whenever chloral is administered. Paraldehyde is a useful drug when a little help is needed. Its action is brief.

In conclusion, I repeat that insomnia is a functional disturbance, and the underlying cause must be found. Every hygienic feature must be cared for, and recourse had to the true hypnotics only after the cause has been mitigated or removed. When the true hypnotics are given, they should be administered in doses sufficient to produce sleep, for if we are to have their deleterious effects we should make sure we receive the benefits.

Opiates are never indicated, save as anodynes.

505 South Warren Street.

(To be continued.)

Therapeutical Notes.

Immobilizing the Intestine.—In discussing a case of typhoid fever, in *Nord médical*, for September 15, 1904, Lemoine states that he arrested hæmorrhage by immobilizing the intestine with the following powder:

℞ Powdered opium........1 centigramme (3/20 grain);
Powdered sugar......25 centigrammes (3¼ grains);
M. For one capsule; give three daily.

Acne in Children.—Acne in children, according to *Journal des praticiens*, for August 6, 1904, requires the same alimentary rules as the disease in adults; no coffee, pork, fish, pastry, cheese, spices, or wine should be permitted, and but little sugar. The following may be given:

℞ Sodium bicarbonate.....20 centigrammes (3 grains);
Calcined magnesia }
Powdered cascara sagrada } of each..10 centigrammes (1½ grains).
M. For one capsule; one to be taken before each meal.

The face should be washed in very hot water in which have been boiled three drachms of bran and a tablespoonful of borax. Every evening the pimples should be washed with naphtha soap. The following ointment may then be applied:

℞ B naphthol }
Green soap } of each..30 centigrammes (4½ grains);
Prepared chalk }
Flowers of sulphur } of each.......50 centigrammes (7½ grains);
Petrolatum ....20 grammes (2/3 ounce).
M. For an ointment.

Next morning, after washing the face, the following should be used as a lotion:

℞ Borax ....10 grammes (1/3 ounce);
Sulphuric ether...........40 grammes (1 1/3 ounce);
Rose water.............100 grammes (3 1/3 ounces);
Distilled water............150 grammes (5 ounces).
M. For a lotion.

Radiotherapy in Inoperable Uterine Fibromata.—Deutsch, of Munich, says *Semaine médicale*, for September 21, 1904, tried radiotherapy 128 times in succession during two years in a case of uterine fibroma in a patient who declined a radical operation. The neoplasm became noticeably smaller and the uterus much more movable; other symptoms disappeared entirely. Deutsch reported three other cases with similar results and advocates the use of the x rays in all such cases.

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THE GENESIS OF TEMPERAMENT.

The authorities of St. Luke's Hospital, South Bethlehem, Pennsylvania—a model institution of its kind, by the way—hold annually on the 18th of October, that being St. Luke's Day, a meeting at which the year's work is reviewed and a class of nursing pupils receive their diplomas. It is customary for some medical man to deliver an address on the occasion. This year Dr. Claude Lamont Wheeler, of the editorial staff of this journal, gave the address, on the subject of temperament. He gave his attention to the psychical rather than the physical aspect of temperament, and, indeed, that is the view that in recent years we have been growing more and more accustomed to take.

It is well for us that diversities of temperament exist. As Dr. Wheeler puts it: "In the spurs and angles of individual temperaments we have a factor in the solidarity of the race. We are not fitted together socially like a pile of bricks, but more like a child's puzzle, where the irregular outlines of the component blocks are found, after a little friction, to fit into a cohesive whole of some strength, without the necessity of cement of any kind. Our defects bring us more closely together than if we were all perfect circles."

Dr. Wheeler does not doubt that temperament is a product of evolution. "The individual primitive man," he says, "must have differed but slightly from his neighbors. As a hunter, he must have been swift of foot, strong of arm, and keen of vision." But when agriculture came to be followed, man had a little leisure while his crops were ripening, and it was then that the differentiation began. Some individuals took to dreaming in this leisure, and thus drifted into poetry. Finding companions of similar susceptibility to the beauty and grandeur of nature, they joined them in founding the first priesthood, "born to tell of a life beyond, in which, if struggle and pain were not eliminated, they were invariably followed by triumphant success."

The peculiarities of bent that sprang up as leisure and refinement grew were continually reenforced by heredity and intensified by environment. As regards the comparative influence of the two elements, Dr. Wheeler, while admitting that it is a "never ending subject of controversy," inclines to regard heredity as the more potent in perpetuating temperament, albeit with occasional lapses, sometimes enduring for generations, while environment initiates the differentiation, and thus really lays the foundation of heredity.

THE SELF-TREATMENT OF THE SLEEPLESS.

That installment of Our Subscribers' Discussions which we publish in this issue deals with a morbid condition that is widely prevalent and of great importance—sleeplessness. We regret that we have not the space at our disposal in which to print the rest of the essays submitted, for almost all of them are of more than ordinary value. In those that appear this week proper prominence is given to the sufferer's own treatment of his condition, but it may not be amiss to supplement what the writers say with a few remarks that are called to mind by it.

As to counting imaginary sheep jumping over a stone wall in order to compose one's self to sleep, we believe it to be generally wearisome and ineffectual. It is too mechanical. But there are variations of the expedient that often suffice to accomplish the object, and they are of a nature to be so modified night after night as to preserve sufficient interest and novelty to afford the mind a pleasant but not taxing occupation, one eminently conducive to sleep. For example, let the victim of insomnia select some naturally related series of names, such as those of quadrupeds. Let him try to think of the name of a four-footed animal beginning with a, then one beginning with b, and so on through the alphabet. Having succeeded in thinking of all the names in such a series—or nearly all of them, "giving up" if need be those that call for the unusual letters as their initials—let him, if he is still wakeful, pass to names of trees, flowers, cities, rivers, men of renown, precious stones, and various other series that will readily suggest themselves. This is far more efficacious than mere counting, besides being really agreeable.

For him who finds difficulty in falling asleep, a very important thing, we think, is to repudiate the idea that he must go to sleep. Diverting himself with some such enumeration as we have suggested, let him rather resolve to remain awake long enough to complete it. As a rule he will not succeed, but he will achieve his object, that of obtaining sleep. Doubtless there are other forms of mild mental occupation that will answer quite as well as what we have mentioned. At all events the intelligent sufferer from insomnia has at his command resources that in most instances will suffice to procure sleep.

THE WORK OF THE NEW YORK STATE COMMISSION IN LUNACY.

The recent work of the commission certainly needs no defense, but does perhaps need to be proclaimed, and, indeed, a circular lately issued by three well known physicians, Dr. George B. Fowler, Dr. Edward D. Fisher, and Dr. Carlos G. MacDonald, rather recounts the commission's praiseworthy achievements than defends it against criticism. These achievements are summarized as follows: The reorganization of the Pathological Institute, with the establishment of a new laboratory on Ward's Island, to which a majority of the physicians of the fourteen State hospitals have been led to resort for the purpose of improving their knowledge of scientific psychiatry; the promotion of clinical teaching in the hospitals, with more complete and accurate observations than before of the mental condition and physical peculiarities of the patients; the endowment of the hospitals with greater facilities in the way of laboratories, operating rooms, and instruments of precision; and the establishment of regular staff meetings, held once or twice a week in each hospital, for discussing the condition of patients and new data pertaining to the care of the insane.

Other points more briefly mentioned are these: An increase of the capacity of the hospitals by 5,147 beds, segregation of the tuberculous insane, improved isolation of the subjects of infectious disease in general, provision for an emergency commitment in dangerous cases of insanity, the reduction of mechanical restraint and solitary confinement by requiring the reasons for such treatment to be recorded in each instance, an increased deportation of the alien insane, the adoption of an improved diet, more continuous supervision of the private asylums, the appointment of boards of consulting neurologists, psychiatrists, and other specialists in several of the hospitals that are situated near enough to large cities to admit of that feature, the establishment of a summer colony for the convalescent and curable, and provision for a psychopathic hospital in New York.

Such work is most creditable to the commission, and we may be sure that the three physicians mentioned would not represent it to have been accomplished unless they were abundantly warranted in so doing by a careful examination of all the facts bearing upon the matter. We believe that the commission has the very general support of the medical profession of the State, and that it deserves such support.

TATTOOING AMONG CRIMINALS.

The practice of tattooing is very prevalent among criminals of the habitual variety. It is especially frequent among European criminals. So far as my own observation enables me to form an opinion, criminals who submit to tattooing are actuated by various and complex motives. The psychology of habitual criminals is, in general, very primitive, being akin in many respects to that of the child or savage. Novelties attract them, and the suggestion of the bizarre offered by tattooing has a very powerful influence upon them. There is also the element of an aristocratic tendency among criminals, which, in effect, is not very different from that shown by respectable men and women who wear distinctive emblems of one kind and another.

There is an inherent mysticism in a large proportion of the human race. This has come to be well recognized among criminologists. The distinctive tattoo marks found especially among European criminals are indicative of an esprit de corps that is psychically the same as that which actuates the wearer of a Grand Army or Masonic emblem. So far as the pride of exhibition is concerned, the criminal, with his emblematic tattoo mark, is on a par with the respectable man who displays the mysterious cross or double eagle of the higher orders of Free Masonry.

The intense ego of the criminal and his primitive ideas of personal adornment have much to do with his custom of tattooing. The various emblems with which he adorns his skin stamp him as of the criminal aristocracy, and give him inflated ideas of his own importance, which ideas are with little difficulty imparted to his criminal brethren. The ideas of personal adornment prevalent among criminals are distinctly atavistic in character, and, so far as tattooing is concerned, place them on a common plane with the American Indian or the South Sea Islander.

A point worthy of attention is the fact that the resources of the criminal for amusement are very limited while in prison, and moderately so outside of it. Tattooing affords an opportunity for diversion to both artist and subject, and gratification of the egotism of both, and especially of the former. The custom of tattooing his own initials or name upon his skin is rarely actuated by a desire for identification in any individual, least of all in the criminal. It is inspired by egotism, pure and simple, and is based upon the same principle as the cutting of their initials in all sorts of places by otherwise respectable individuals. From the standpoint of egotism, the sailor who tattoos his own initials upon his breast is on a par with the criminal who adorns himself in a similar manner. In the case of the criminal, only overpowering egotism could so far overcome his abhorrence of establishing a permanent means of identification as to cause him to deliberately submit to the tattooing of his own initials upon his person. The tattooing by male criminals of female figures and names on their bodies is, in many instances, mere sexual symbolism, and is rarely actuated by a refined quality of sentiment. The same holds true of non-criminal individuals who decorate themselves in like manner. Not infrequently it is a manifestation of true perversion.

In a certain sense, the same primitiveness of psychology is responsible for the tattooing prevalent among criminals and is explanatory of their penchant for writing vulgar and obscene inscriptions upon the walls of their cells and on the margins of books. This has been quoted as being characteristic of the criminal class. It is, however, the correlative of the same sort of inscriptions and the vulgar and obscene pictures that are to be found in various places of sanitary convenience and physiological necessity, which are not supposed to be frequented by criminals alone. The latter class of inscriptions are largely, but not altogether, the work of juveniles. The analogy between the immature minds of boys, which lean toward depravity of expression in the manner described, and those of criminals at once suggests itself. The class of drawings and inscriptions alluded to are evidence of perverted or suppressed sexuality.

Ellis noted the writing of inscriptions, verses, sentiments, etc., on the walls of cells and in other places by criminals as an expression of their desire to assert their individuality, and to relieve loneliness by self-communion that should present some objective evidence of their existence. Lombroso has laid special stress upon tattooing as an evidence of atavism in the criminal. Ellis says that tattooing is an evidence of the sensory obtundity of the criminal. While the relative insensibility of the criminal to pain is admitted, I doubt whether it is responsible for tattooing. The desire for decoration of the skin with tattooing existing, the trifling amount of pain produced by the process would not be likely to be taken into consideration. The relative insensibility of the criminal to pain is a point where atavism and degeneracy are so closely blended that their distinction would savor of splitting hairs. I believe, moreover, that the relative insensibility of the savage to pain, which is the foundation of the atavistic theory of the relative insensibility of the criminal, has been somewhat exaggerated. In the case of our American Indian, particularly, the stoicism exhibited under torture is largely a matter of cultivation. The Indian, from babyhood up, is subjected to various sources of physical torment, to which he becomes eventually inured, largely through that familiarity which breeds contempt and a species of autosuggestion. If the savage knew aught of the theories of degeneracy, he doubtless would classify as degenerates those whose stoicism gave way under physical pain.

Relative anæsthesia is normal in the female, even among civilized women. Neurodegeneracy, in general, is shown by certain hysterics and hysteroids who are extremely sensitive to pain. Hysterical anæsthesia has its counterpart in hysterical hyperæsthesia. Admitting, as we perforce must, the relative insensibility of the savage, we are by no means justified in assigning a lack of sensibility to degeneracy. On the contrary, I believe that the savage standard is normal; that of civilized man the artificial. An approximation of civilized man to the savage as regards relative insensibility to pain should logically be termed atavistic, rather than degenerative, unless neuropathic disorder can be shown.

G. Frank Lydston.

A DESERVED CONCESSION TO THE OLD PRACTITIONER.

The Illinois State Board of Health, one of our most progressive sanitary bodies, has lately adopted a resolution that will materially aid the established practitioner, rusty though he may be as to his elementaries, to pass its examination for the license to practise. By the terms of the resolution, on and after January 1, 1905, the board will accept as an equivalent of a part of the examination required "satisfactory evidence of five or more years of reputable practice of medicine and surgery since graduation, and will allow a credit of five per cent. upon the required average of seventy-five per cent. for each period of five years of such practice on the part of a candidate for a certificate." We hope that this move in the direction of justice will be followed by other State examining bodies.

THE MARAGLIANO INSTITUTE.

We are glad to see that Professor Maragliano's labors in the field of the ætiology of infectious diseases have met with recognition in the establishment in Genoa of the Istituto Maragliano per lo Studio e la Cura della Tubercolosi e di Altre Malattie Infettive. The institute issues a publication, the *Annali*, which we find very interesting and valuable.

A DECEPTIVE CRUMB FOR THE EVOLUTIONISTS.

Dr. H. F. Eichacker, of Brooklyn, writes to us that he recently delivered a Jewish woman of two boys, both of whom were "born circumcised;" also that he has lately observed the birth of a litter of five puppies, three of which had long tails, and two short ones. "By and by," he adds, "there will be two new species of man and dog kind, one born circumcised in front and the other behind." If the birth of an apella is still such a rarity as to excite remark, evolution has not advanced much since the days of Horace.

WOOD ALCOHOL AS A BEVERAGE.

Recent revelations lead to the unavoidable conclusion that the great amount of factitious whiskey forced upon the market by conscienceless cupidity has of late been rendered more than usually injurious by the extensive use of wood alcohol in its concoction. Now that the facts have been made public, it is to be hoped that stringent measures will be taken to put a stop to such wholesale poisoning, and to punish the guilty persons.

THE UNION OF OLD GERMAN STUDENTS IN AMERICA.

We have received the first number, dated October, of the *Vereinigung alter deutscher Studenten in Amerika*, which is to appear monthly hereafter. The title is preceded by the appropriate motto *gaudeamus igitur*. The number is mainly devoted to an inspiriting account of the Commers held in New York on October 8th in honor of several distinguished visitors from Germany.

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Dr. Byron Cook Pennington, one of Atlantic City's best known physicians, was signally honored on October 17th, when his brothers in medicine presented him with a handsome silver loving cup at his residence, 1212 Pacific Avenue. Dr. Pennington accepted the cup with a few well chosen remarks. He is one of the oldest, in point of service, and best known physicians in Atlantic City. He is one of the vice-presidents of the American Medical Association and is ex-president of the Atlantic County Medical Society and the Atlantic City Academy of Medicine. He is also a surgeon at the Atlantic City Hospital. In company with his son, George Pennington, he sailed on October 22nd for Bermuda, where he will spend the entire winter. The loving cup is a beautiful piece of workmanship. It stands fully twelve inches in height and is lined with gold. The following is inscribed across the front: Presented to Byron Cook Pennington, M. D., as a tribute of esteem and appreciation from the Atlantic City Medical Profession.

News Items.

Society Meetings for the Coming Week:

TUESDAY, *November 1st.*—New York Neurological Society; Buffalo Academy of Medicine (Section in Surgery); Philadelphia Academy of Natural Sciences; Elmira, N. Y., Academy of Medicine; Ogdensburgh, N. Y., Medical Association; Syracuse, N. Y., Academy of Medicine; Hudson, N. J., County Medical Society (Jersey City); Androscoggin, Me., County Medical Association (Lewiston); Baltimore Academy of Medicine; Medical Society of the University of Maryland (Baltimore).

WEDNESDAY, *November 2nd.*—New York Academy of Medicine (Section in Public Health); Society of Alumni of Bellevue Hospital (New York); Harlem Medical Association of the City of New York; New York Genitourinary Society; Medical Microscopical Society of Brooklyn; Medical Society of the County of Richmond, N. Y. (New Brighton); Philadelphia College of Physicians; Penobscot, Me., County Medical Society (Bangor); Bridgeport, Conn., Medical Association.

THURSDAY, *November 3rd.*—New York Academy of Medicine; Brooklyn Surgical Society; Philadelphia Obstetrical Society; Society of Physicians of the Village of Canandaigua, N. Y.; Boston Medicopsychological Association; United States Naval Medical Society (Washington); Medical Society of City Hospital Alumni, St. Louis; Atlanta Society of Medicine.

FRIDAY, *November 4th.*—Practitioners' Society of New York (private); Clinical Society of the New York Post Graduate Medical School and Hospital; Baltimore Clinical Society; the Manhattan Clinical Society.

SATURDAY, *November 5th.*—Manhattan Medical and Surgical Society, New York (private); Miller's River, Mass., Medical Society.

Changes of Address.—Dr. F. Conger Smith, to 362 West Fifty-seventh Street, New York; Dr. John W. Gordon, to 1433 Walnut Street, Philadelphia; Dr. Clarence P. Franklin, to 121 South Sixteenth Street, Philadelphia.

NEW YORK.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending October 22, 1904:

	October 22.		October 15.	
	Cases.	Deaths.	Cases.	Deaths.
Measles	57	3	52	6
Diphtheria and croup	317	30	275	26
Scarlet fever	123	7	109	8
Smallpox	..	..	1	..
Chickenpox	41	..	26	..
Tuberculosis	237	143	320	137
Typhoid fever	125	17	140	26
Cerebrospinal meningitis	..	18	..	13
Totals	1,000	218	923	236

The Bronx Needs a Larger Morgue.—Coroner O'Gorman, of the Bronx, is reported to have stated that the present morgue of that borough is inadequate. A city hearse for the borough is also demanded, there being none available nearer than One Hundred and Twenty-second Street.

Associated Physicians of Long Island.—The twentieth regular meeting of this organization was held on October 22nd, in the Court House at Mineola, with the following programme: Cardiac Disturbances in Digestive Diseases, by Jacob Fuhs, M. D., of Brooklyn; A Plea for the Practical in Obstetrics, by John H. Harry, M. D., of Long Island City; The Diagnosis and Treatment of Intestinal Perforation in Typhoid Fever, by A. T. Bristow, M. D., of Brooklyn; Keratitis, by W. G. Reynolds, M. D., of Brooklyn. Following the scientific session at the Court House there was a session at Jahren's Hotel, where dinner was served.

The Genitourinary Section of the Eastern Medical Society will meet on Tuesday evening, November 1st, at Clinton Hall, 151 and 153 Clinton Street (near Grand). Programme: Symposium on Prostatic Hypertrophy, Ætiology and Pathology of Prostatic Hypertrophy, by Harlow Brooks, M. D.; Perineal Prostatectomy, by a Special Method, by Parker Syms, M. D.; Complete Suprapubic Prostatectomy Without Ether or Chloroform (with specimens of prostates removed), by Joseph Wiener, Jr., M. D.; The Present Attitude Towards Prostatectomy, by Martin W. Ware, M. D. Discussion by Dr. Charles H. Chetwood, Dr. Willy Meyer, Dr. Albert A. Berg, and Dr. Henry Roth. A. L. Wolbarst, M. D., chairman of section.

Right of the Schools to Exclude Unvaccinated Pupils.—The right of public schools in this State to exclude from attendance pupils who refuse to be vaccinated has been affirmed by the Court of Appeals. The appeal in this case was brought by Edward C. Viermeister, of Brooklyn, who declined to comply with the directions of the New York City Board of Education and vaccinate his 10-year-old son, a pupil of School No. 12, in Brooklyn. The Court of Appeals upholds the constitutionality of Section 200, Chapter 661, of the laws of 1893, and sides with the lower courts, which decided that this statute was a legitimate exercise of police power. The appellant argued that vaccination did not prevent smallpox and that the operation practically amounted to assault.

The Deanship of the College of Physicians and Surgeons of Columbia University, which has been filled by Dr. John G. Curtis as Acting Dean since the resignation of Dr. McLane, in June, 1903, has been filled by the election, for the statutory term, of Dr. Samuel W. Lambert, professor of applied therapeutics. Dr. Lambert is the son of the late Dr. Edward W. Lambert; he graduated from Yale with the degree of A. B. in 1880, and with that of Ph. B. in 1882, and from the College of Physicians and Surgeons of Columbia University in 1885. Since 1896 he has been one of the visiting physicians at the New York Hospital. Dr. Lambert becomes ex officio a member of the Columbia University Council, of the Board of Trustees of the Roosevelt Hospital, and of the boards of managers of the Sloane Maternity Hospital and of the Vanderbilt Clinic.

The Pneumonia Commission met on October 18th in the offices of the board of health to consider means of preventing the spread of pulmonary diseases. The commission is composed of Dr. Edward G. Janeway, Dr. Emmet Holt, Dr. Herman Biggs, and Health Commissioner Darlington, of this city; Professor William Osler and Dr. W. H. Welch, of Baltimore; Dr. Theobald Smith, of Harvard; Dr. John H. Musser, of Philadelphia; Dr. T. Mitchell Prudden, of the College of Physicians and Surgeons; and Dr.

Frank Billings, of Chicago. At the request of Dr. Darlington the city appropriated $10,000 several months ago for the investigation, and it is expected that the deliberations of the commission will extend for at least a year. The object of this commission was thus set forth by Dr. Darlington in his address to the meeting:

> For some years the problem presented by the large and constantly increasing death rate from the acute respiratory diseases has been the cause of serious anxiety to the board of health. This problem has long been recognized as one of the first sanitary importance, and efforts have frequently been made to find some method for its solution. Succinctly stated, the situation is this: During the last twenty years the general death rate in New York city has fallen 25 per cent. and the death rates from all the principal causes of deaths have fallen from 10 to 40 per cent., excepting in four groups of diseases, in which there has been an increase. These are: 1, the acute respiratory diseases; 2, cancer; 3, the diseases of the heart; 4, disease of the kidneys. The increases in these groups have been from 10 to 25 or 40 per cent.; in the acute respiratory diseases being about 15 per cent. In the present year there has been an extraordinary increase in the first half, the deaths from the acute respiratory diseases forming no less than 23 per cent. of the total death rate, or 18,000, of which 8,630 were from pneumonia. There can now be no question that the exciting cause in each one of the diseases of this group is a microorganism which requires such conditions for its growth and multiplication as are found in the living body. These organisms, practically, do not multiply at all outside of the tissues or cavities of the body under natural conditions. The infection, therefore, must practically always be the result of communication, directly or indirectly, from one human being to another. The conclusion, then, seems justifiable that these diseases are essentially communicable, and however great the inherent difficulties of the problem may be, theoretically at least, they should be to a greater or less extent preventable.

The subjects discussed by the commission on the 18th were frequency and variation of occurrence, evidence of communicability, mouth infection, seasonal relations, collection of statistics, and geographical relations. Dr. Janeway was chosen chairman of the commission, which was subdivided into a clinical committee and a bacteriological committee. The former is composed of Dr. Janeway, Dr. Osler, Dr. Musser, Dr. Billings, and Dr. Holt; the latter of Dr. Welch, Dr. Prudden, and Dr. Smith. Dr. Biggs will serve on both committees.

PHILADELPHIA.

The Health of the City.—The following contagious diseases have been reported for the week ending October 15th:

	Cases.	Deaths.
Malarial fever	4	0
Typhoid fever	78	11
Scarlet fever	46	2
Smallpox	1	0
Chickenpox	21	0
Diphtheria	86	9
Cerebrospinal fever	1	0
Measles	5	1
Whooping cough	4	1
Tuberculosis of the lungs	54	45
Pneumonia	17	21
Erysipelas	4	1
Tetanus	1	0

The total death rate for the week was 414 in an estimated population of 1,408,154, corresponding to an annual death rate of 15.29 per 1,000 population. There have been the following deaths from other contagious diseases: Tuberculosis, other than tuberculosis of the lungs, 12; diarrhœa and enteritis, under two years, 22. The weather bureau reported an unusually high maximum temperature on October 9th, 10th, and 11th. The maximum temperature on the 9th was 73°; on the 10th, 83°, and on the 11th, 84°. On the 12th there was 1.62 inch of rainfall, the thermometer registered 61° as a maximum and the humidity varied from 100 at 8 a. m. to 79 at 8 p. m. This unusual heat may have had some influence on the increased death rate.

Lectures to School Teachers.—Dr. Jay F. Schamberg is to give a series of lectures to the teachers of the public schools on the detection of contagious diseases.

Charitable Bequests.—In adjudicating the estate of John E. Garrett, who died July 30, 1903, Judge Penrose awarded the following charitable bequests: Philadelphia Home for Incurables, $5,000; St. Agnes's, St. Mary's, and Methodist Hospitals, each $100.

Sudden Death of Dr. George Purviance.—Dr. George Purviance, assistant surgeon-general of the Public Health and Marine Hospital Service, has been under the treatment at the Orthopædic Hospital for neurasthenia for the past month. In the evening of October 20th, in a fit of temporary excitement, Dr. Purviance left his room and, in spite of the efforts of his nurse to prevent him, jumped from a balcony just outside his window to the pavement. The drop of four stories resulted in instant death. No blame can be attached to the hospital management in the matter.

Philadelphia Neurological Society.—The following was the programme of the meeting of this society, held October 25th: Dr. L. C. Peter, A Case of Hysteria; Dr. J. H. W. Rhein, A Case of Trauma of the Cervical Spine Exhibiting Syringomyelic Symptoms; Dr. Alfred Gordon, A New Reflex, Paradoxical Flexor Reflex; Dr. Charles K. Mills, A Case of Myokimia with Remarks Upon the Different Forms of Tonic and Clonic Myospasm; Dr. S. D. Ludlum, Neurofibrillar Changes; Dr. Charles K. Mills and Dr. T. H. Weisenburg, A Case of Mixed Aphasia with Hypoæsthesia and Partial Hemianopsia in a Left Hemiplegic.

Medical Society Programmes.—The following was the programme of the meeting of the Philadelphia County Medical Society, held October 26th: Dr. M. Behrend: A Case of Typhoid Fever Complicated by Appendicitis; Operation; Recovery; Followed by Pleurisy with Effusion and Pneumothorax; Ultimate Recovery; Dr. M. C. Thrush: The Trend of Modern Prescription Writing; Dr. S. W. Newmayer: The Relation of the Physician to the Bureau of Health. Discussion opened by Dr. Edward Martin and Dr. John H. Musser.

The following was the programme of the meeting of the section on Gynæcology of the College of Physicians, held October 20th: Dr. Brooke M. Anspach reported A Case of Complicated Inversion of the Uterus; Dr. Barton C. Hirst read a paper entitled A Clinical Study of Seventy-five Cases of Ectopic Pregnancy; Dr. John G. Clark, Recent Theories Concerning the Origin of Glandular Ovarian Cysts; Dr. John H.

Girvin, A Case of Carcinoma of the Vulva; Dr. Henry D. Beyea, The Technics of the Operation of Ventrosuspension.

The following was the programme of the Pathological Society's meeting, October 27th: Dr. Guthrie McConnell, A Frog Showing Dipygus Parasiticus; Dr. George P. Muller, Sarcoma of Undescended Testis; Dr. Joseph McFarland, The Absorption of Fibrin; Dr. W. M. L. Coplin, A Chamber for the Study of the Disinfection of Gases, and for Teaching Methods of Disinfection; Dr. Joseph McFarland will present as card specimens, The Trypanosoma of African Lethargy, of Dourine, and the Trypanosoma Theileri.

The Activity of the Pure Food Commission; the Case of Sodium Sulphite.—From time to time we have noted in these items the results of the efforts of the State Department of Agriculture to prevent the sale of adulterated food products and of food products preserved with injurious chemicals. We think this subject of considerable importance, so that extended notice of the progress of the attempts is warranted. At present the important development in the activity of the department is the trial of Charles W. Spencer, of the Kansas City Beef Company, accused of selling Hamburg steak adulterated by the use of sodium sulphite as a preservative. The plaintiff, the commonwealth of Pennsylvania, offered as evidence the expert opinion of Edward M. Chase, of the Federal Department of Agriculture, and of C. G. Cochran, State chemist, as to the injurious influence of sodium sulphite on the economy and its action when in contact with the hydrochloric acid of the gastric juice. Dr. James C. Wilson, professor of the theory and practice of medicine in Jefferson Medical College, Philadelphia; Dr. Victor C. Vaughan, professor of hygiene in the University of Michigan; Dr. Adolph Koenig, of Pittsburgh; and Dr. H. R. Smith, of Altoona, gave expert evidence concerning the harmful influence of sodium sulphite on the human organism. In his defense Mr. Spencer admitted using a preservative on his meats; but stated that he bought it as a borax compound. He said that he kept his meat in a refrigerator until it was exposed for sale, when his employees were instructed to sprinkle it with the preservative compound in the proportion of one quarter ounce to the pound, never more than one half ounce to the pound. He asserted that he had eaten the meats from his own market, which had been preserved with this compound. Professor Oscar Liebreich, of Berlin, Germany, testified in behalf of the defense, that sodium sulphite in the proportions used as a food preservative is harmless, and that in ten years' experience with food preservatives he had never seen a case of poisoning following its use among human beings. He admitted that his opinion was contrary to that of the German government, which legally forbids the use of sodium sulphite as a food preservative. Dr. T. L. Coley, of Philadelphia, testified that in Brazil, along the banks of the Amazon River, he had seen sixty grains of sodium sulphite given every three hours as a medicine with beneficial results in cases of malaria with profound anæmia and hematuria. Dr. Hobart A. Hare, professor of therapeutics and materia in the Jefferson Medical College; Dr. Robert G. Eccles, of Brooklyn; and Dr. Robert N. Willson, of Philadelphia, testified that sodium sulphite is harmless. The preservative in question is known to the trade as X X X preservative, and is composed of 88 per cent. of sodium sulphite, 10 per cent. of boracic acid, and 2 per cent. of sodium bicarbonate. After one half hour's deliberation the jury returned a verdict of guilty. Sentence was deferred, pending a motion for a new trial.

Dr. Marshall's Discovery Concerning Starch in Manufactured Chocolate: In June, 1904, three grocers in Blair county, Pa., were arrested for selling Croft and Allen's premium chocolate, which, after an examination made by Dr. Aschman, of Pittsburgh, was said to be adulterated with wheat starch. Thereupon this product was listed in the official bulletin of the State Department of Agriculture as an adulterated product. Croft and Allen stated that wheat starch was not intentionally added to their premium chocolate, and that they doubted if it had been accidentally added during the process of manufacture. Dr. John Marshall, professor of chemistry in the medical department of the University of Pennsylvania, was engaged by Croft and Allen to determine, if possible, the manner in which the foreign starch could have been added. Upon examining the product microscopically Dr. Marshall believed that wheat starch had been added; but upon the positive statement of Mr. Croft that no adulterant had been used, he carefully reviewed the process of manufacture. It is known that the cocoa bean contains small granules of starch and that in one of the early processes in the manufacture of chocolate from the cocoa bean, the bean is roasted. By making sections of the raw bean and subjecting them to varying degrees of heat, Dr. Marshall demonstrated that many of these small granules swell until they assume the size and appearance of the granules of wheat starch, and that the roasted beans used in the process actually contain these large granules, which had hitherto been unknown. At the trial, which occurred at Hollidaysburg, counsel for the commonwealth said that if the defense had anything new to offer and their experts could satisfy the experts of the pure food commission, the case would be dismissed. The facts were demonstrated to the satisfaction of the experts for the commonwealth, and subsequently Dr. Marshall explained his discovery to the jury. The firm was exonerated and given permission to use the address which the judge made to the jury, as extensively as the statement of adulteration had formerly been made public. The official bulletin of the Department of Agriculture will publish the facts.

The Discussion of Food Adulteration at the Medical Jurisprudence Society: The meeting of the medical jurisprudence society of Philadelphia, held on October 17th, was devoted to a discussion of food adulteration. Dr.

Thomas L. Coley read a paper on The Influence of Certain Food Preservatives on Digestion: Based on Experiments, and Dr. Henry Leffmann gave Some Suggestions for Food Laws. Dr. Coley's paper was concerned with the use of benzoic acid and sodium benzoate as preservatives. He concluded that these substances were harmless in the proportions used for preserving food. In the discussion the opinion seemed to hold that it is the proportion of preservative used rather than the mere fact of its presence that is of importance.

The Significance of the Agitation: It has been claimed that the agitation of the subject recently started by the State Department of Agriculture is merely the exploitation of a new method of graft. We believe this is not a just statement of the case. While graft may not be absent from the official side of the prosecutions, nothing but good can result from the widespread, thorough scientific discussion of the subject in all its bearings. What medical men want is to learn the truth, and when the truth is demonstrated, it will prevail.

Pay Patient Building for the Germantown Hospital.—On September 12th and 13th the president and board of managers of the Germantown Dispensary and Hospital received the friends of the hospital and the members of the medical profession for an informal inspection of the new, three story, fireproof, brick building for pay patients. The building is modern in every respect of construction and equipment. There are twenty-five private bedrooms, five suites, and five sitting rooms. There are two operating rooms, one intended for minor operations and the other for major operations, complete in all details. There is a main diet kitchen, presided over by a graduate of Mrs. Rorer's school, as well as smaller diet kitchens on each floor. The system of electric bells from the private rooms is quite new in its details. The building will be ready to receive patients about September 20th.

GENERAL

Dr. William Watt Kerr, of San Francisco, was seriously injured recently in an automobile collision, and is in a precarious condition at his home in that city.

Children's Home, of Cincinnati.—Dr. William H. Taylor has been elected president of the Children's Home, of Cincinnati, to succeed the late John L. Stettinius.

Ohio Medical College's New Secretary.—Dr. Albert V. Phelps, of Cincinnati, has succeeded the late Dr. James C. Hyndham as secretary of this institution.

Colorado State Board of Medical Examiners.—Governor Peabody has appointed Dr. LeRoy C. Hedges, of Grand Junction, Colo., a member of the State board of medical examiners, to fill the vacancy caused by the resignation of Dr. C. F. Stough.

Dr. E. J. Davis, of Mankato, Minn., has been elected surgeon of the Soldiers' Home, of Minneapolis, to succeed Dr. C. H. Norred.

Assistant Surgeon of Wisconsin National Guard.—Dr. J. W. Frew, of Milwaukee, has received the appointment from Governor La Follette as assistant surgeon of the Wisconsin National Guard, with the rank of first lieutenant. He succeeds the late Dr. Ralph Chandler.

Wisconsin Training School for Nurses, Milwaukee.—Mabel Cone, Mabel Conchrane, Gertrude Anderson, Lillian Knaak, Matilda Ovian, and Jesse Peterson received nurses' diplomas on October 20th at the commencement exercises of the Wisconsin Training School for Nurses.

Jubilee of Two Up State Physicians.—The Ontario Medical Society held a jubilee meeting in Canandaigua, N. Y., on October 11th, in honor of Dr. W. Scott Hicks, of Bristol, and Dr. J. Richmond Pratt, of Manchester, who have been members fifty years. Over 50 physicians were present.

Proposed Postgraduate School for Detroit.—A number of physicans are considering plans for a new Detroit postgraduate school of medicine and a hospital. No definite plans have been made, but a committee, composed of Dr. L. E. Maire, Dr. F. D. Summers, and Dr. Leo Breisacher, has been appointed to formulate some line of organization.

The American Society of Clinical Surgery.—The third meeting of the society was held in Buffalo and Cleveland on October 28th and 29th, the members taking the evening train for the latter city on the 28th. Clinics were held at the medical school and general hospital in Buffalo, and at the Lakeside Hospital and Western Reserve Medical Building in Cleveland.

Gold Medal for the Craig Colony.—The Craig Colony for Epileptics at Sonyea, in Livingston County, N. Y., has been awarded a gold medal for its exhibit at the St. Louis Exposition. The exhibit consisted of models, in groups, of thirty-eight of the sixty-six buildings that comprise this institution at the present time.

Medical Examining Board of Connecticut.—The next examination of the Medical Examining Board of Connecticut will be held at the City Hall, in New Haven, on Wednesday and Thursday, November 9 and 10, 1904. Attention is called to a slight change in dates from that previously announced. Charles A. Tuttle, M. D., secretary.

Michigan College of Medicine and Surgery.—Dr. Morgan Parker, of Detroit, candidate for nomination for coroner on the Republican ticket, has been appointed assistant to the professor of nervous diseases by the faculty of the Michigan College of Medicine and Surgery. In connection with the appointment, Dr. Parker received a testimonial from a number of his professional friends.

Physician at Devil's Lake, Wis.—Dr. George Hughes, of Milwaukee, has accepted the appointment of government physician at the Devil's Lake Indian Reservation. He will be succeeded at the Emergency Hospital by Dr. Adolph Sonntag.

New Building for Albany Medical College.—The board of trustees of the Albany Medical College have voted to appropriate $5,000 for a new building for the college. The Honorable Simon W. Rosendale was elected president and the Honorable Alden Chester vice-president of the board. Luther H. Tucker was elected a trustee.

Asbury Hospital, Minneapolis.—Asbury Hospital is to be completed as soon as possible. The foundation for the new building was laid two years ago at Ninth Street and Ninth Avenue S., Minneapolis. The hospital will be completed at a cost of $60,000. The site is an admirable one, being almost directly across from Elliot Park, and being too far removed from a car line to give the patients any annoyance. The building will extend from Ninth Street nearly to Tenth Street.

A Physician's Golden Wedding.—Dr. and Mrs. L. B. Miles, of No. 54 Portland Street, Cleveland, Ohio, celebrated their golden wedding on October 11th, at their home with a reception from 8 to 12. The doctor is one of the oldest physicians in that city, being now over eighty years of age. Mrs. Miles is his junior by twelve years. The memories which Dr. Miles recalls date back to Cleveland's earliest medical college, which he attended, later practising in that city till he went to Cincinnati, and to the dental college, where he graduated. He then practised his new art in Georgetown for thirty years, until his health failed, then went to Cleveland.

Michael Reese Hospital, Chicago.—Plans have been adopted for the new Michael Reese Hospital. It will be erected on the site of the present hospital at the foot of Twenty-seventh Street, Chicago, fronting Groveland Avenue, and will be of fireproof construction. It probably will be six stories high, and will cost $400 000. Construction will be commenced this winter or next spring. Subscriptions to the fund for the construction of the building are in the hands of Leon Mandel, chairman; W. W. Eisendrath, Julius Rosenwald, M. Born, Harry Hart, Benjamin Rosenberg, and M. E. Greenebaum.

A New Tri-State Medical Organization.—The Tri-State Medical Association, composed of physicians from Louisiana, Arkansas, and Texas, was organized at Shreveport, La., on October 14th. The following officers were elected: Dr. J. R. Dale, of Texarkana, Ark., president; Dr. Vaughan, of Waskom, Texas, vice-president for Texas; Dr. T. E. Schumpert, vice-president for Louisiana; Dr. L. Abramson, secretary. A committee composed of Dr. Dowling, Dr. Schumpert, and Dr. Boaz was appointed on constitution and by laws. The association will meet on November 16th to receive the committee's report and enroll new members.

Dr. Charles L. Bonifield, of Cincinnati, was severely injured on October 19th, in endeavoring to catch his runaway horse. He is confined to the house.

The Englewood Union Hospital, having outgrown its present quarters at 840 West Sixty-fourth Street, Chicago, is to erect a new home on a site 150 by 240 feet between Sixty-third Place and Sixty-fourth Street, extending from Emerald Avenue to Union Avenue. Funds for the project are to be raised by the sale of $80,000 of 4 per cent. bonds of various denominations, some of them as low as $25. In the last year the hospital had gross receipts of $24,972, and did charity work to the amount of $5,361.

Medical Society of Virginia.—The thirty-fifth annual meeting of this society closed in Richmond on October 21st with the election of the following officers: President, Dr. William S. Christian, of Urbanna; first vice-president, Dr. Lewis C. Bosher, of Richmond; second vice-president, Dr. H. L. Myers, of Norfolk; third vice-president, Dr. John D. Butler, of Caroline county; corresponding secretary, Dr. John F. Winn; secretary, Dr. Landon B. Edwards; treasurer, Dr. R. M. Slaughter. Norfolk was chosen as the next meeting place.

Officers of Senior Medical Class, Georgetown University.—The senior class of Georgetown University, medical department, at a meeting held on October 21st in the medical school elected the following officers for the ensuing year: President, William J. French, of Minnesota; vice-president, Herschel E. Baldwin, of Illinois; secretary, Glenn I. Jones, of Virginia; treasurer, George W. Stiles, of Oklahoma; executive board, Marcus H. Watters, of Vermont; Charles C. Ammerman, of New York; Edward L. Osborne, of Georgia; and Daniel P. Bush, of Nebraska.

Dr. C. Maria Nordstrom, seventy years old, a well known physician of Malden, Mass., for many years a member of the school committee of that city, met with an accident recently, and when she was removed to the Malden Hospital the physicians found her to be suffering from internal injuries which on account of her age may result fatally. While alone in the house, she opened a door which she supposed led into a closet, and fell headlong into the cellar, a distance of about fifteen feet. She remained almost unconscious for over half an hour until discovered by neighbors.

New England Alumni Association of the Albany Medical College.—The annual meeting of this body was held October 20th at Springfield, Mass. At the business meeting of the association addresses were made by Dr. T. D. Crothers, of Hartford, Conn., and Dr. Albert Vander Veer, of Albany, N. Y. Dr. Vander Veer discussed the advances that have been made in surgery during the past two decades. In the evening a banquet was served at the Hotel Wortley, Dr. A. E. Abrams acting as toastmaster. All the graduates of the college residing in New England were earnestly urged to attend this meeting, and the officers and members of the association were glad to welcome delegations from other branches of the alumni.

Vital Statistics of Manila, P. I., for June.—The principal causes of death in the city of Manila and the number of children who died before completing their first year are set forth in the following table:

Cause.	Total deaths.	Deaths under 1 year of age.
Convulsions of children	275	250
Tuberculosis of lungs	90	..
Meningitis, simple	47	20
Other diseases of the nervous system	5	4
Diarrhœa and enteritis, chronic	44	17
Acute bronchitis	36	26
Chronic bronchitis	36	22
Congenital debility, icterus, and sclerema	33	31
Dysentery	31	1
Eclampsia, non-puerperal	21	16
Beri-beri	17	..
Diarrhœa and enteritis, under 2 years	17	8
Diarrhœa and enteritis, 2 years and over	5	..
Other diseases of early infancy	5	3
Typhoid fever	14	..
Intermittent fever and malarial cachexia	16	..
Senile debility	11	..
Pneumonia	11	..
Cerebral congestion and hæmorrhage	10	1
Tetanus	9	7
Organic disease of the heart	9	..
Bright's disease	9	..
Tuberculosis of larynx	7	..
Chronic rheumatism	7	..
Leprosy	5	..
Angina pectoris	5	..
Acute nephritis	5	..
Variola	4	..

The New Harvard Medical School Buildings.—One of the most interesting features of the Harvard exhibit at the St. Louis Exposition is the model of the new buildings of the medical school, which are now being erected at a cost of upward of $2,000,000. Work upon these buildings was begun in September, 1903, but it is not expected that they will be completed until toward the close of 1905, which will preclude their being occupied until the fall term of 1906. The design of the buildings, which are of marble, is distinctly Grecian, and when completed they will form a noteworthy group merely from the architectural point of view. It is of interest to note that much of the funds that have been contributed to enable the Harvard Medical School to make this forward leap comes from New York. J. P. Morgan gave the three buildings at the back of the group, and Mrs. Collis P. Huntington and David Sears gave the buildings in the foreground. According to the treasurer's report and other accounts, Mr. Morgan gave $1,135,000; Mrs. Huntington, $250,000; Mr. Sears, $250,000, and to these sums must be added $1,000,000 from John D. Rockefeller, nearly $371,000 from Henry L. Pierce (1898), and about $500,000 from other sources. The new children's hospital has a location on the west of the medical school buildings, and the Thomas Morgan Rotch Infants' Hospital will build on their school grounds. Nearby is the new building of the Samaritan Hospital, which was commenced last May; and within easy reach by cars is the Free Hospital for Women. The affiliation of the Harvard Medical School with these institutions will give it hospital connections equal to those, perhaps, of any medical school in America.

The Fourth Pan-American Medical Congress, which will convene in Panama the first week in January next, bids fair to be a most delightful midwinter trip. The delegates will leave this country by the Atlantic, Pacific, and Gulf Coasts the last week in December. They will return by the same routes, or will make round trips. The Public Health Association meeting will take place on the following week in Havana, and those desirous of attending both meetings, can arrange to do so. There are two routes for the physicians to take from Panama to Havana. The first is by way of Jamaica to Santiago de Cuba by boat and overland by rail to Havana. The second is by water from Colon to Vera Cruz and thence to Havana. The former will probably be the most pleasant trip. From Havana, the return trip can be made directly north to New York by water or via Miami or Tampa, Florida, or New Orleans. The connections and dates of sailing are now being arranged. The Panamanian Government has appropriated $25,000 for the scientific session and the entertainment. The congress will be held from the second to the sixth of January. The afternoons will be devoted to the scientific sessions and the mornings and evenings to trips and social functions. So far as can be learned, the programme in Panama will be a reception on the first day, by President Amador, of the Panama Republic, and the formal opening session of the congress the same evening. On the second day, an excursion to the canal in the morning, meeting of the various sections in the afternoon, and a banquet in the evening; on the third day, an excursion down the bay to Taboga Island, where a Panama breakfast will be served, scientific sessions in the afternoon and a ball in the evening. On the fourth day, an excursion to the U. S. Army barracks in the morning, section meetings in the afternoon, and the formal closing session in the evening. On the fifth day, an excursion to the plantation of the United Fruit Company; and on the afternoon of this day those of the congresistas who intend going to Cuba to attend the meeting of the Public Health Association, will sail for Jamaica, while those who intend going by way of Vera Cruz, or returning home by way of New Orleans or New York, will remain until the following Tuesday. The secretaries of the sections of the congress for the United States are: Dr. A. H. Doty, of New York, Hygiene and Quarantine; Dr. Judson Daland, of Philadelphia, Medicine; Dr. R. Matas, of New Orleans, General Surgery; Dr. Bert Ellis, of Los Angeles, Diseases of the Eye; Dr. Hudson Makuen, of Philadelphia, Diseases of the Throat; Dr. Frederick Jack, of Boston, Diseases of the Ear; Dr. C. H. Hughes, of St. Louis, Nervous Diseases; Dr. George Goodfellow, of San Francisco, Military Surgery; Dr. John Ridlon, of Chicago, Orthopædic Surgery; Dr. A. W. Montgomery, of San Francisco, Dermatology; Dr. C. G. Kerley, of New York, Pædiatrics; Dr. Noble P. Barnes, of Washington, Therapeutics; Dr. Walter Chase, of Boston, Pathology. Communications from physicians in the United States, interested in these branches, can be sent directly to these different secretaries. Delegates intending to attend the congress, desirous of obtaining information concerning it, should communicate with the secretary of the International Executive Committee in the United States, Ramon Guiteras, M. D., 75 West Fifty-fifth Street, New York.

Fulton County, N. Y., Medical Society.—Official notice: At a regular meeting of the Fulton County Medical Society, held in the supervisors' office at Johnstown, N. Y., on Thursday evening, October 13, 1904, the following amendment to the by laws of the aforesaid society was unanimously adopted:

> On and after the first day of January, 1905, no member of this society shall accept the position of club, society, or organization physician, or agree, or continue to do any medical or surgical work for any club, society, or organization at a less rate than the regular or customary charges for like services rendered by other physicians for patients not members of such club, society, or organization. Also that in no case shall any physician agree to attend the families of the members of such club, society, or organization at half price or a less price than the regular rate. Nothing in this section shall be construed as preventing any member from attending the worthy poor at a less rate or to give free service to those who are too poor to pay anything, or acting as city, county, or town physician, health officer, or under any political appointments. Any violation of this by law shall be considered unprofessional conduct and render the member guilty thereof liable to suspension or expulsion from this society, as the society may determine. Charles E. Pannaci, M. D., secretary.

Statement of Mortality in Chicago, Ill., for the Week Ending October 22, 1904, compared with the preceding week and with the corresponding week of 1903. Death rates computed on United States Census Bureau's estimated midyear populations of 1,932,315 for 1904 and of 1,873,880 for 1903:

	Oct. 22, 1904.	Oct. 15, 1904.	Oct. 24, 1903.
Total deaths, all causes	462	424	442
Annual death rate per 1,000	12.50	11.46	12.29
By sexes—			
Males	261	231	260
Females	201	193	182
By ages—			
Under 1 year	75	105	64
Between 1 and 5 years	32	35	45
Over 60 years	108	85	73
Important causes of death—			
Acute intestinal diseases	48	47	25
Apoplexy	13	16	11
Bright's disease	43	34	38
Bronchitis	13	17	8
Consumption	54	62	51
Cancer	28	15	22
Convulsions	5	10	6
Diphtheria	13	4	18
Heart diseases	38	27	32
Influenza	2	1	9
Nervous diseases	17	12	20
Pneumonia	31	35	49
Scarlet fever	2	1	3
Suicide	8	5	12
Smallpox	2	0	0
Typhoid fever	5	7	11
Violence (other than suicide)	34	18	28
Whooping-cough	2	6	1
All other causes	104	107	106

The increase of 38 more deaths from all causes reported during the week is due to 9 more from Bright's disease, 13 from cancer, 9 from diphtheria, 11 from heart diseases, 5 from nervous diseases, and 16 more from violence other than suicide. The influenza death reported the previous week was the first since April 26th ult.; 2 more were reported this week, and the laboratory examinations show a great increase both of the influenza and the diphtheria germs. The department's repeated warnings are again seasonable: Don't trifle with a "cold" at this time of year, especially when the influenza bacillus is abroad in the land; an attack of influenza, or the "grip," frequently leads to pneumonia. As to diphtheria—antitoxine has been proved a specific. No child need die of diphtheria if properly treated with antitoxine. But don't expose the child to any catching disease. The older the child when attacked the milder the course and the better the chance of recovery. The following among the important causes of death show the decreases indicated: Apoplexy, 3; bronchitis, 4; consumption, 8; convulsions, 5; pneumonia, 4; suicide, 3; typhoid fever, 2; whooping cough, 4. The hospital population shows a slight increase of the total, but a decrease of pneumonia and typhoid patients.

Pith of Current Literature.

PRESSE MEDICALE.

October 5, 1904.

1. Unilateral Radicular Sciatica, By Lortat-Jacob and Sabaréanu.
2. The Neurofibrilli After the Method of Ramon y Cajal, By Azoulay.
3. Lesions of the Liver, Kidneys, and of the Organism in General in the Ætiology of Eclampsia, By Theuveny.
4. Urinary Elimination During the Uncontrollable Vomiting of Pregnancy, By Schwab.

1. **Sciatica.**—Lortat-Jacob and Sabaréanu state that the phenomena of objective sensation in sciatica have not been very accurately noted, the occurrence of hyperæsthesia, hypoæsthesia, or anæsthesia, and their distribution in the affected limb, having been somewhat loosely described. The writers cite a case and give a diagram showing the exact areas of anæsthesia and hypoæsthesia, which extend from the buttock to the sole of the foot of the affected limb, involving over one half of its surface. Hysteria was carefully excluded. The phenomena seem to prove that the lesion was radicular and not in the nerve trunk proper. There was a well marked history of syphilis in the patient.

LYON MEDICAL.

September 25, 1904.

1. Treatment by Methodical (Swedish) Movements, By Grollier.
2. Genital Tuberculosis in Women (*Concluded*), By Jamin and Violet.

1. **Swedish Movements.**—Grollier states that mecanotherapy is a comparative novelty in France and has been misinterpreted to mean violent gymnastics, suitable only to the perfectly healthy. The important elements of the Swedish method are its adaptability of the exercise of a single muscle at a time and the possibility of its regulation or dosage. The principles on which the apparatus is based are described.

2. **Genital Tuberculosis in Women. (Concluded.)**—Jamin and Violet continue their article by stating that genital tuberculosis may be primary or secondary. The secondary follows principally pulmonary infection; the tube may become infected from the peritonæum. In the direct form, the bacillus may be introduced by a sound, a pessary, or the finger, by the pus of an anal fistula, possibly in semen during intercourse, or from a tuberculous ureteritis in the male. The occurrence of the primitive form is doubted by many investigators. Infection of the tubes is the most common form of genital

tuberculosis and may occur as a perisalpingitis, an interstitial form, or as an endosalpingitis, but all forms may coexist. A hyperplasia may develop, leading to suspicion of a malignant growth. Menstrual irregularity is the commonest symptom of tuberculous invasion, with pain, rectal disturbances, and ascites as sequelæ; a purulent leucorrhœa is not uncommon. Pain, aggravated at the menstrual period, at each new development of the disease, and during coitus, is very common. Emaciation, sterility, ectopic gestation may also occur. The authors recommend extirpation of the annexa, but have had recoveries where the uterus was allowed to remain; they prefer the abdominal route.

SEMAINE MEDICALE.

September 28, 1904.

Lateral Auditory Orientation; Its Function and Mechanism, By Bard.

Lateral Auditory Orientation.—Bard's article is a scientific discussion from the physical and physiological standpoint of the ability of an animal to tell whence a given sound proceeds. He presupposes a chiasm similar to the optic, for the ears, and believes that all sound waves not arriving from a point directly perpendicular to the tympanic membrane are transmitted to, and interpreted by, the opposite cerebral hemisphere.

RIFORMA MEDICA.

September 6, 1904.

1. On the Inoculability of Malignant Tumors, By Francesco Sanfelice.
2. On Collapse of the Veins with Reference to the Pressure in the Right Auricle (*To be concluded*), By Alfonso Abbruzzetti.
3. Angeioma of the Mammary Gland, By Domenico Taddei.
4. Bioplastin in Modern Therapeutics, By F. Sicuriani.

1. **Inoculability of Malignant Tumors.**—Sanfelice found a tumor of the size of a large chestnut in the vagina of a dog. Sections of this tumor, or scrapings from its surface, brought to light the presence of saccharomyces cultivable in agar and on potatoes. He was sure that this saccharomyces was not an accidental product. The cultures contained parasites, differing slightly from those found in the tumor proper; for in the latter the parasites showed a refractile membrane surrounded by a hyaline wall, which was especially brought out on the addition of a drop of acetic acid under the cover glass. Saccharomycetes which were derived from the air were not provided with this capsule. The tumor itself proved to be a sarcoma. Four dogs were inoculated with portions of the growth after the first dog had been killed. In one of these dogs a tumor similar to the primary growth developed, also in the mucosa of the vagina, and in the secondary growth the same blastomycetes were found as in the first. Inoculations were made, furthermore, with cultures of the parasite, into rabbits and guinea pigs, cats, and dogs. In the rabbits which died as the result, there appeared swellings at the site of the puncture, consisting of giant cells and white blood cells, and containing the blastomycetes described. The parasite was also found in the enlarged glands in the vicinity of the tumors. In the guinea pigs there developed tumors of the size of a large nut, and these, as well as the enlarged lymphnodes and the various organs of the body contained the parasite in considerable numbers. While in these animals the tumors were composed largely of the parasites proper, in the cats and dogs the growths were constituted chiefly by tissue cells of mesodermal origin, and the parasites were comparatively scarce. The parasites found in these inoculations were styled *Saccharomyces canis* by the author, and were identical with the *Saccharomyces neoformans* of Plimmer and the *Saccharomyces hominis* of Busse. Parasites of the cultivable type were found only in one of the inoculated cats and dogs—in the dog with the sarcoma of the vagina. In the other cats and dogs, seven in number, there were only a few fuchsinophile corpuscles.

3. **Angeioma of the Breast.**—Taddei, in speaking of the treatment of these tumors, recommends the complete removal of the mammary gland when the growth is intramammary, as was the case in the patient whose history he reports. The course of these angeiomas is known to be always more or less rapidly progressive, and there is danger of hæmorrhage through an ulcerated spot of skin affected by the angeiomatous changes. The gland itself is surely doomed to progressive atrophy. Conservative methods are impossible also, on account of the manner in which the tumor is diffused through the mammary tissue.

September 13, 1904.

1. Acute Poisoning with Mercuric Chloride (*To be continued*), By Alfredo Rossi.
2. Tuberculous Infection Through the Vagina (*To be continued*), By Calogero Galbo.
3. Collapse of the Veins in Its Relation to the Pressure in the Right Auricle (*To be continued*), By Alfonso Abbruzzetti.

GAZZETTA DEGLI OSPEDALI E DELLE CLINICHE.

September 11, 1904.

1. The Pyloric Swelling. The Functional Plurality of the Normal Human Stomach. (*To be continued*), By Stefano Mircoli.
2. Abdominal Hysterectomy with Longitudinal Division of the Uterus, By Giuseppe dal Fabbro.
3. Contribution to the Operative Treatment of Large Hæmorrhoidal Tumors, By Giuseppe de Franchi.
4. Studies on Intravenous Injections of Corrosive Sublimate in the Treatment of Internal Infections of the Eye, By Pietro Tumminia.
5. The Cold Bath in Neurasthenia, By Urbano Alessi.

2. **New Methods of Hysterectomy.**—Dal Fabbro strongly favors the method of Faure of Paris in performing abdominal hysterectomy in cases in which the annexa are very adherent to the surrounding structures. The method of Faure consists in grasping the fundus of the uterus by means of two strong forceps, and, having drawn the organ

forward, dividing it longitudinally. The mucosa which is thus exposed is immediately cauterized with the Paquelin cautery, and there is but little hæmorrhage, provided the Falloppian tubes are not injured. Each half of the uterus and the corresponding annexa are then removed in turn, beginning below and working upward and outward. The scissors cut successively the cervix of the uterus, the broad ligament, the round ligament, and the infundibulum. The adhesions are slowly severed and the arteries tied as they are encountered. The objection to this method is the possibility of infection following the opening of the uterine cavity, but this objection is not important in view of the brilliant results obtained with this procedure by Faure and others.

A second method of hysterectomy, introduced by Faure, is applicable in total hysterectomies, especially in cases in which the uterus is enlarged or the seat of malignant disease, etc. It consists in what is termed decollation, or detaching the uterus from its attachments first, and then removing the annexa. The present author employed this method in three cases with very good results and regards it as an improvement on our present technics of hysterectomy. The operator begins by severing the cervix of the uterus, from in front or from behind, as the adhesions may allow. The uterus is then raised as high as possible, and the right hand is introduced into the opening made by severing its neck, passes behind and beneath the broad ligament, and grasps the annexa. The latter are then easily found and isolated, and are divided from below upward. The whole mass of uterus and annexa is next sharply bent upward over to the opposite side, thus exposing the opposite annexa which are clamped and cut.

3. **Treatment of Large Hæmorrhoidal Tumors.**—De Franchi recommends cauterization with the Paquelin in the treatment of hæmorrhoidal tumors of large size. By this method he was able to secure permanent cures and to avoid the loss of blood and the other dangers of the more complicated methods of operative treatment. He recommends this method especially when the hæmorrhoids are ulcerated, when there is little hope of obtaining primary union, and when the patients are weak and anæmic. After the usual preparations and the dilatation of the rectum to show the tumors in their full extent, the cautery is applied in the usual manner, the eschars are dressed with iodoform gauze, and a rectal cannula is inserted.

4. **Corrosive Sublimate Intravenously in Infections of the Eye.**—Tumminia found that intravenous injections of corrosive sublimate do benefit intraocular infections, but that owing to the dangers accompanying the use of this treatment, on account of the toxic properties of the drug in question, it is advisable to resort to this method only in desperate cases in which every other means has failed.

5. **Cold Baths in Neurasthenia.**—Alessi praises the effects of cold baths in neurasthenic patients. He attributes the good results obtained with this treatment to the fact that in most cases neurasthenia depends on the presence of the uric acid diathesis, or of rheumatism or gout, and that the increased metabolism produced by these baths is of great benefit. There is also a certain amount of psychical effect which is very beneficial in these patients, and after a time they are able to resume their ordinary occupations with more energy, and suffer less from their nervous condition.

ROUSSKY VRATCH.

September 18, 1904.

1. A Case of Cavernous Angeioma of the Cheek, By V. A. Oppel.
2. On the Bacteriotoxic and Cytotoxic Theories of Sympathetic Ophthalmia, By J. V. Zelenkovsky.
3. On the Action of Various Poisons Upon the Isolated Heart of Warm Blooded Animals (*Continued*), By N. I. Botcharoff.
4. The Value of Kernig's Sign in the Diagnosis of Meningitis, By A. M. Levin.
5. A Case of Early Syphilis of the Cerebellum, By V. U. Yawein.
6. On Disease Among Students in Higher Educational Institutions, By N. P. Nikolsky.

4. **Kernig's Sign in Meningitis.**—Levin believes that Kernig's sign is of great value in the diagnosis of meningitis. Of twenty-nine cases of this disease which he observed during a period of five years, twenty-one had Kernig's sign, and of these seventeen were cases of cerebrospinal meningitis, three had tuberculous meningitis, and one an inflammation of the meninges complicating pneumonia and influenza. The eight cases in which Kernig's sign was absent were as follows: Three cases of tuberculous meningitis in children, three cases of meningitis of otitic origin, one of meningitis occurring before death in typhoid, and one of meningeal inflammation complicating scarlatina, together with nephritis, purulent otitis, and pneumonia. Kernig's sign, therefore, occurred in 72 per cent. of all cases of meningitis, and was most constantly found in the cerebrospinal type, while only fifty per cent. of the tuberculous cases showed this sign.

Levin agrees with Kernig and Netter that the physical sign in question appears very early in meningitis, especially in the cerebrospinal form, usually on the first or second day of the disease. Its early occurrence makes possible the diagnosis of meningitis in some cases, in spite of the fact that the other clinical evidences do not develop till later. Examinations of a number of healthy persons and of patients suffering from different diseases showed that a slight suspicion of Kernig's sign may occur in health, but no true contraction on flexing the thigh occurs in healthy persons. The sign is useful in the diagnosis of meningitis complicating other diseases. Its mechanism is as yet not known.

5. **Syphilis of Cerebellum Developing During Secondary Stage.**—Yawein's case is interesting because the patient developed the clinical symptoms of a gumma of the cerebellum within six months after the appearance of the primary sore. The usual antisyphilitic treatment had been pursued vigorously, in the form of inunctions and injections.

almost from the start. The affection was located in the cerebellum because there were marked disturbances in equilibrium, with persistent and severe vertigo, accompanied at first by vomiting. There were also severe headaches which with difficulty yielded to specific medication. Nystagmus and diplopia also were present, showing that the branches of the oculomotor were affected.

September 25, 1904.

1. The Therapeutic Clinic, and What it Must Include, By A. P. FAVITSKI.
2. The Entrance of a Natural Mixture of Pancreatic and Gastric Juices, and of Bile Into the Stomach. The Conditions for, and the Significance of this Phenomenon (*To be concluded*), By V. N. BOLDYRIEFF.
3. On the Action of Various Poisons on the Isolated Heart of Warm Blooded Animals (*Concluded*), By N. I. BOTCHAROFF.
4. The Interdependence Between the Nervous Symptoms and the Mental Manifestations of Hysteria, By E. P. RADIN.

4. **Hysteria and Its Mental Symptoms.**—Radin concludes from a study of this subject that the nervous manifestations of hysteria gradually merge into the mental symptoms, thus completing the development of a psychosis in the true sense. Some authors regard hysterical degeneration merely as a good soil for the development of a psychosis. In those cases in which hysteria as a neurosis imperceptibly merges into a psychosis, there comes to the rescue the theory of another set of authorities (Pierre Janet, Breuer, Freund) who regard hysteria as a psychosis. As a matter of fact the boundary which has been drawn between the somatic and the psychical manifestations of hysteria is quite artificial, and the two groups of phenomena imperceptibly merge into each other. The psychic manifestations are, in fact, dependent upon the somatic, and are in many instances equivalents thereof. The author cites a number of cases in support of his theory.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

October 22, 1904.

1. Laminectomy. A Further Contribution, By JOHN C. MUNRO.
2. Rupture of Mesenteric Glands During Typhoid Fever Simulating Intestinal Perforation. Report of a Case with Operation and Recovery, By ROBERT G. LE CONTE.
3. A Case of Retroperitoneal Fibrolipoma, By GEORGE BEN JOHNSTON.
4. The Family Physician as a Factor in the Solution of the Tuberculosis Problem, By S. A. KNOPF.
5. Problems for the Tuberculous Convalescent, By A. MANSFIELD HOLMES.
6. The Differential Leuçocyte Count as an Aid to the Diagnosis of Fevers, By WILLIAM KRAUSS.
7. Physiological Optics. New Experiments for Demonstration and New Apparatus, By WINFIELD S. HALL.
8. Poisoning by Wood Alcohol. Cases of Death and Blindness from Columbian Spirits and Other Methylated Preparations (*Continued*), By FRANK BULLER, and CASEY A. WOOD.
9. Reflex Apnœa and Cardiac Inhibition in Operations on the Respiratory Tract, By WILLIAM HARMAR GOOD, and W. G. B. HARLAND.
10. The Radical Treatment of Non-Strangulated Inguinal Hernia from the Standpoint of the Modern Surgeon, By J. M. BANISTER.
11. Acidosis. Experimental Evidence That Its Nervous Symptoms Are Not Wholly Due to Lack of Alkali, By RAY LYMAN WILBUR.
12. A New Method of Lateral Anastomosis. Preliminary Report, By AXEL WERELIUS.

1. See this *Journal*, Vol. LXXX, page 84.
2. See this *Journal*, Vol. LXXIX, page 1219.
4. See this *Journal*, Vol. LXXX, page 44.
5. See this *Journal*, Vol. LXXX, page 88.
6. See this *Journal*, Vol. LXXX, page 43.

9. **Reflex Apnœa.**—Harland and Good conclude that any part of the air tract, when irritated, is apt to produce reflex apnœa, cardiac inhibition, and even death. Usually this can be prevented by the administration of atropine, by having the patient completely anæsthetized before operating, when general anæsthesia is used, and by the use of cocaine locally. If severe inhibition does not occur we have in moderately forcible inflation of the lungs a most valuable means for relieving this dangerous condition.

10. **Hernia.**—Banister asserts: (1) By the methods of Bassini and Halsted, the modern surgeon has at his command two absolutely reliable operations for the radical cure of hernia. (2) With our modern strict aseptic technics, the operation is as safe as any in surgery, and the risk of a fatal termination in an operable case is so insignificant as not to be worthy of consideration. (3) The danger of relapse is so remote as to be of no moment in forming a decision with reference to the advisability of an operation in any given case. (4) If the above propositions are true, every operable case of hernia in patients between the ages of 4 and 50 years and without disease of vital organs, should be subject to the radical operation, as is the custom of our military service.

BOSTON MEDICAL AND SURGICAL JOURNAL.

October 20, 1904.

1. The Modern Conceptions and Methods of Medical Science, By W. T. COUNCILMAN.
2. Heart Complications in Diphtheria. A Clinical Study of 946 Cases, By FRANKLIN W. WHITE, and HOWARD H. SMITH.
3. The Assouan Cure, By F. GORDON MORRILL.

1. See this *Journal*, Vol. LXXX, page 667.

2. **Diphtheria.**—White and Smith base their paper on the study of nearly one thousand cases of diphtheria treated at the Boston City Hospital during one year. They present general statistics of all the cases, consider the cardiac signs and symptoms that were common to a large number of the patients, and devote the bulk of their paper to the special consideration of a small group of cases

in which the heart symptoms were unusually prominent and important. The following points are emphasized: (1) The great frequency of heart murmurs and of irregularity of the pulse. The prognosis does not depend on the mere presence of these signs, but upon the severity of the infection, the length of time without treatment, the rate and degree of irregularity of the pulse, and the presence of the graver signs of cardiac disturbance. (2) Moderate disturbance of the heart is very common; severe complications are infrequent. (3) Frequent examinations of the heart are necessary to really determine its condition, because of the marked changes in rhythm from one hour to the next. (4) Gallop rhythm, late vomiting, and epigastric pain and tenderness are important as danger signals of severe heart complications. The association of late vomiting with gallop rhythm renders the outlook almost hopeless. (5) Antitoxine does not affect the heart unfavorably, but, on the other hand, its early use prevents the appearance of grave heart complications. (6) Frequent examination of the heart and pulse in the second and third week of the illness are necessary, that being the time when severe heart complications most frequently occur. (7) Bronchopneumonia is a more frequent fatal complication of diphtheria than heart disease; sudden death from heart disease is very rare when patients are kept in bed for a proper period. (8) Prolonged rest in bed is necessary in all severe cases; it is not necessary to keep all patients in bed who have cardiac murmurs and a pulse which is somewhat irregular and increased in rate. One should be governed by the stage of the illness and the patient's general condition. If no serious heart trouble has developed within four weeks the patients are usually safe from this complication. (9) Heart murmurs and irregularity are of long duration in many cases, and make it necessary to watch the condition of the heart long after convalescence in all severe cases.

MEDICAL NEWS.

October 22, 1904.

1. The Surgical Physiology of the Lymphatic System, By C. H. Mayo.
2. A Contribution to the Study of Infections of the Prostate from the Urethra, By Frederic Bierhoff.
3. The Use of Absorbent Paper in the Service of Practical Hæmatology, By T. W. Tallqvist.
4. The Climate and Waters of Hot Springs, Virginia, By Guy Hinsdale.
5. Three Cases of Probable Psittacosis, By Herman F. Vickery, and Oscar Richardson.
6. The District Nurse in Her Relation to Cases of Pulmonary Disease, By Arthur Willard Fairbanks.

1. **The Lymphatic System.**—Mayo reviews the lymphatic system from the point of view of the surgeon. Certain practical conclusions are reached both with regard to varieties of drains and drainage adjuncts and with regard to the kind of wounds that require drainage and those that do not. We quote that portion of the author's advice which is of most general application. "Aseptic operations in regions rich in lymphatics, where the lymph circulation is but little disturbed, will not require drainage—as ligation of vessels in the neck, Alexander's operation, and hernias in the inguinal region. Aseptic operations in these regions in which the lymph system is removed require capillary drainage from four to six days, as self drainage is temporarily abolished and early removal results in serous accumulations without increase of temperature usually discovered when the cases should be dismissed from care; as in removal of cervical glands, cancer of the breast and auxiliary glands, and malignant disease of testicle and inguinal glands. Free drainage of the stump should be employed in amputation for malignant disease where the glands are removed from axillary or inguinal regions. In regions rich in lymphatics, where operations, for septic conditions must be made, we open fresh area for absorption of toxines and our endeavor should be to use upon the incised surface strong antiseptics, such as carbolic acid followed by alcohol, chloride of lime as a caustic, or in mild cases glycerin, to prevent or inhibit the action of absorbents, and maintain the disease as a local infection. This is markedly shown in operations for the removal of bone necrosis. For the same reason the cautery is used to incise abscesses in certain regions, and also to make puncture drains in cellular streptococcus poisoning.

2. **Prostatitis.**—Bierhoff, while reviewing the different forms of prostatitis and their ætiology and treatment, makes a special point of his observation that the prostatic secretion is, as a rule, decidedly alkaline in reaction. It is for this reason that gonorrhœal prostatitis is usually a mild infection since the gonococcus does not thrive in an alkaline medium.

3. **The Tallqvist Test.**—Tallqvist calls attention to his device for estimating the percentage of hæmoglobin. His method is as accurate as and more rapid than Gower's. In addition to the percentage of hæmoglobin two other things are shown by his test: (1) A moist ring will appear around the blood spot when the number of red cells falls below fifty per cent. of the normal. (2) In leucæmia the drop of blood requires an appreciable time for its absorption and the resulting color will not correspond to any of the shades of the scale.

AMERICAN MEDICINE.

October 22, 1904.

1. Some Problems in the Life History of Pathogenic Microorganisms, By Theobald Smith.
2. The Modern Conceptions and Methods of Medical Science, By W. T. Councilman.
3. The Early Diagnosis of Pulmonary Tuberculosis, By William Fitch Cheney.
4. Dilatation and Curettement of the Uterus, By John M. Fisher.
5. "Shorten the Time from the Cow to the Baby," By Arthur R. Reynolds.
6. The Doctor and the Community, By Richard C. Cabot.

1. **The Life History of Pathogenic Microorganisms.**—Smith's paper is extremely suggestive and presents a number of hypotheses, some new and some old, by which he attempts to explain such questions as immunity, the varying virulence of the same race of microorganisms, the factors which

render a certain outbreak of disease endemic or epidemic, and similar phenomena. In order to do this he discusses in a general way the parasitism of bacteria and attempts to outline, on broad lines, the probable results of any attempts of medical and sanitary science to modify this parasitism.

2. See this *Journal,* Vol. LXXX, page 667.

3. **Pulmonary Tuberculosis.**—Cheney asserts that after all is said and done the diagnosis of early pulmonary tuberculosis must be made by a study of the clinical history and of the physical examination of the patient. Of the newer methods, sputum examination does not give information early enough; tuberculin may give a reaction when no active tuberculosis is present, and may fail to give a reaction when active tuberculosis is really present; the Röntgen ray confirms for us what physical examination has already discovered, but does not tell us anything that cannot be found out in other ways. Mistakes in diagnosis are due to three causes: (1) To preconceived ideas; a physician is apt to find what he is looking for. (2) To inattention to details. (3) To want of repeated examinations; no man can expect to reach a correct conclusion after a single investigation.

4. **Dilatation and Curettement of the Uterus.**—Fisher considers in detail the indications and contraindications of dilatation and curettement of the uterus. He dwells at length on the dangers of these surgical procedures and holds that no one but a specialist should undertake them. He concludes by describing in detail his own technics.

5. **Fresh Milk.**—Reynolds pleads that it is necessary to educate the public up to the point at which they will insist on obtaining milk not more than twelve hours old. Commercially it is possible to deliver milk only twelve hours old provided the public is willing to pay a slightly greater price than it does at present for much older milk.

MEDICAL RECORD.

October 22, 1904.

1. The Gynæcological Importance of Prolapsed Kidney, By AUGUSTINE H. GOELET.
2. The Pathogenesis and Treatment of Œdema, By WILLIAM J. DOUGHERTY.
3. The History of Tuberculosis, By JOHN B. HUBER.
4. My Experience with Light Therapy, By JULIUS ROSENBERG.
5. Ainhum. Report of a Case, By HENRY N. BLUM.
6. Report of Two Fatal Cases. 1. Hypertrophic Cirrhosis of the Liver; Talma's Operation. 2. Cancer of the Head of the Pancreas; Cholecystenterostomy, By IRVING S. HAYNES.
7. Aural Reflex Phenomena, By J. J. RICHARDSON.
8. A Case Illustrative of the Unclassified Troubles of Women, By EUGENE COLEMAN SAVIDGE.

1. **Prolapsed Kidney.**—Goelet asserts that the gynæcological importance of prolapsed kidney is due to two chief reasons: (1) A prolapsed kidney overlies the ovarian vein as it ascends along the spine and compresses this vein, when the waist is constricted by clothing, thus producing congestion in the pelvis. (2) The ureter lies behind the ovarian vein where they cross. Hence when the kidney prolapses the ureter becomes bent and the vein is compressed. Congestion of the pelvis follows. The author cites a number of cases in order to show how little the importance of prolapsed kidney is appreciated. Operation should be advised in all suitable cases since it is practically without mortality.

2. **Œdema.**—Dougherty inclines to the view held by Archard that organic changes in the viscera are not in themselves the cause of œdema. However that may be, the quantity of sodium chloride ingested has a marked influence on the production of the symptom œdema. Two cases are reported, from the service of Marie Bicêtre Hospital, of œdema of the legs in which the legs returned to normal on removing as far as possible all salt from the diet. In both cases there was return of the œdema on several occasions upon return to an ordinary diet.

4. **Light Therapy.**—Rosenberg reports twenty-seven cases treated by light therapy. From his experience he concludes "(1) The ultraviolet light rays obtained from an iron-carbon arc of high amperage are a specific remedy in acute muscular pain, such as lumbago, torticollis, and pleurodynia. (2) In cases of acute and chronic neuritis these rays will always relieve pain, and in most cases, especially acute forms, effect recovery. (3) The bactericidal powers of the chemical light rays are easily demonstrated in inflammatory conditions of the skin of parasitic origin. In acne and furunculosis the curative effect is both prompt and certain. (4) My results in rheumatic arthritis have not been encouraging, thus differing from those reported by German authors. This may in part be due to the limited number of treatments permitted. (5) In acute and chronic pleurisy and bronchitis the application of the ultraviolet rays is undoubtedly beneficial. (6) Results in gonorrhœal peritonitis and catarrhal inflammation of the deep urethra and adjacent structures are encouraging, and justify further trials. (7) I believe that the ultraviolet light rays will be of benefit in gonorrhœal and tuberculous infections of the joints; also that the pains accompanying locomotor ataxia may be relieved and controlled."

LANCET.

October 8, 1904.

1. The Function of the Cæcum and Appendix. (The Huxley Address), By SIR W. MACEWEN.
2. The Future Relation of King's College to Its Medical School, By T. BUZZARD.
3. On the Evolution of the Medical Curriculum, By A. MACALISTER.
4. On the Exclusion of the Intestine, By B. G. A. MOYNIHAN.
5. Six Cases of Splenic Anæmia in One Famliy, By J. W. SPRINGTHORPE, and R. A. STIRLING.
6. A Case of Pneumococcic Pyæmia with Recovery, By A. T. DAVIES, and W. L. BROWN.
7. Notes on a Case of Quadruplets, By A. C. GOWDRY.
8. Some Cases from Professor Gaucher's Clinic at the Hôpital St.-Louis, Paris, By J. L. BUNCH.

1. **Appendix and Cæcum.**—Macewen, in his

Huxley address on the function of the appendix and cæcum, states that in carnivora where digestion takes place in the stomach and small intestine, the cæcum is rudimentary or absent. In herbivora, on the other hand, the cæcum is enormously developed. Man, being both carnivorous and herbivorous, has not only a stomach, but also a cæcum. But, as his vegetable food is tender, his cæcum is of moderate size. The arrest of the function of the cæcum results in disturbed digestion manifested in diarrhœa and in lowering of the general strength. At the ileocæcal valve there is a controlling reflex agency regulating the flow of partially digested food into the cæcum. It regulates the flow of material at a rate which enables the cæcum and its juices to deal with it. When this is interfered with cæcal indigestion occurs, leading to diarrhœa, or to the gathering of masses of matter gathering in the cæcum and causing constipation with subsequent fermentative action of a kind apt to result in irritation of the mucous membrane and appendix. The succus entericus of the cæcum and appendix plays an important part in digestion. Another powerful factor is furnished by the microorganisms which find in the cæcum and appendix abundance of alkaline medium in which they can grow and pabulum in the chyme for their development. Further, when a purgative action has cleared out most of the germs from the cæcum and colon, those in the appendix will still maintain a fresh culture for renewed action. The chyme from the ileocæcal valve is directed towards the orifice of the appendix and receives there its portion of succus entericus and germs fitting it for the completion of digestion. Though the causes of appendicitis are varied the majority are intimately associated with the digestive process and the factors controlling it. If from inhibition of the appendicular or cæcal movement or the want of exudation of the succus entericus or if the cæcum receives material which the succus entericus cannot digest, a stasis occurs in the contents of the cæcum and the constipation which is so often a feature of appendicitis ensues. At a later stage fermentative disintegration of the fæcal contents with absorption of toxines and damage to the wall of the parts is apt to ensue. The appendicular inflammation once started may progress after the cæcum has recovered.

4. **Exclusion of the Intestine.**—Moynihan states by "exclusion of the intestine" is meant the rendering inactive of any part of the intestinal canal by surgical means. The following forms of intestinal exclusion are recognized: 1. Enteroanastomosis, or short circuiting. 2. Enteroanastomosis with constriction, by suture of the part distal to the upper opening. 3. Unilateral exclusion, when the gut is divided completely across, and the proximal end implanted into the side of the distal. The distal end may be closed or open. 4. Bilateral exclusion, when the bowel is divided at two places and the intestinal channel is restored, leaving a segment of the bowel detached. The operation of exclusion of the intestine is chiefly necessary in cases of chronic inflammatory disease, probably tuberculous, involving the bowel and leading to external fistulæ; in cases of inoperable carcinoma of any part of the large intestine, especially of the cæcum and ascending colon; and in rebellious cases of mucomembranous colitis. Unilateral exclusion, except in cases involving the lower end of the ileum, offers no advantages over lateral anastomosis, and bilateral exclusion affords the best means of dealing with tuberculous and malignant diseases of the cæcum and colon, and with fistulæ between the small intestine and the bladder or vagina.

5. **Splenic Anæmia.**—Springthorpe and Stirling report a series of six cases of splenic anæmia. In this condition the anæmia is profound, and attended with hæmorrhages, gastrointestinal disturbances, icterus, and fever. The splenic enlargement is uniform, marked, and painful. The blood picture in advanced cases is a leucopenia with an anæmia of the pernicious type, and a relative lymphocytosis. All of the patients were in one family: three sisters, and one brother with his son and niece. In two of the cases splenectomy was performed, with marked beneficial effects upon the blood and general condition. The possible indications for removal of the spleen are: 1. Malarial spleen. 2. Splenic anæmia, or splenic pseudoleucæmia. 3. Splenic leucæmia. 4. Banti's disease (many look on this as only an advanced stage of splenic anæmia). 5. Wandering spleen. 6. Abscess of the spleen. 7. Rupture of the spleen. 8. Sarcoma of the spleen. 9. Hydatid.

6. **Pneumococcic Pyæmia.** — Davies and Brown report the case of a girl, aged eight years, who, when first seen, was suffering from lobar pneumonia. Later there developed inflammation of the right knee joint, and empyema, the pus containing diplococci. After a few days, symptoms of peritonitis appeared and on performing laparotomy about three pints of pus were let out. This pus was microscopically sterile. From this time on the child improved steadily and eventually recovered. No blood cultures were made. In conclusion the authors have tabulated thirty-nine fatal cases of multiple pneumococcal infection, bacteriologically proved to be due to that organism alone. It is often very difficult to decide which is the initial primary lesion.

BRITISH MEDICAL JOURNAL.

October 8, 1904.

1. Introductory Addresses at the Opening of the Medical Schools.

(Seventy-second Annual Meeting of the British Medical Association.)

Section of Medicine.

2. Discussion on the Treatment of Chronic Renal Disease, By W. H. White, Professor van Noorden, Sir J. W. Moore, and Others.
3. Discussion on the Present State of Serum Therapeutics, By E. W. Goodall, C. J. Martin, and F. F. Caiger.
4. On a Disseminated Form of Croupous Pneumonia in Children, or Primary Bronchopneumonia, By S. West.
5. Functional Albuminuria, By H. G. Armstrong.
6. Human and Bovine Tuberculosis, By N. Raw.
7. The Clinical Features of Splenic Anæmia, By W. M. Stevens.
8. Graphic Tracings of the Faradaic and Other Interrupted Currents, By H. L. Jones.

9. Bradycardia, By G. A. GIBSON.
10. Ateleiosis and Progeria: Continuous Youth and Premature Old Age, By H. GILFORD.
11. The Maternal Heart in Pregnancy, and the Management of Pregnancy Complicated by Heart Disease, By J. MACKENZIE, and H. OLIPHANT-NICHOLSON.

2. **Chronic Nephritis.**—White, in opening the discussion on the treatment of chronic renal disease, states that there are two objects in view: (1) To withhold substances which irritate the kidneys and are difficult to excrete; and (2) to deal with the poison which causes uræmia. Such medicines as mercury, lead, and digitalis must never be given for long periods; cantharides, turpentine, and carbolic acid should never be given. Opium is often of service in uræmia, but otherwise is harmful, as are sulphonal and trional. Moderate quantities of alcohol are harmless, unless the pulse tension is high. While the diet must be chosen with care, it must be plentiful: many patients are starved and their disease aggravated thereby. Plain, well cooked, digestible meals, with a proper proportion of proteids, fats, carbohydrates, and salts, are indicated. Condiments and sauces should not be allowed. Further restrictions are unnecessary and harmful. Too much water should not be given. Uræmia is the result of a poison which must be gotten rid of. Therefore the bowels and skin should be kept acting freely: chilling of the skin should be sedulously avoided. Turkish baths are usually harmful because of the effect on the circulation. The severe headache is often relieved by the nitrites or a hot bath. Chloralamid is the best hypnotic.

Van Noorden emphasizes three points. First, no preference need be given to white meat over dark. Second, it is unnecessary to give increased quantities of water to flush out the system. Third, while all fatiguing exertion must be forbidden, it is certainly not good for the patient to forbid all muscular exercise. When obesity complicates Bright's disease, it should be removed. But the greatest caution is required. Milk diet should not be recommended in such cases.

Moore says that the treatment of chronic kidney disease should proceed along the following lines: 1. Dietetic, to avoid extra strain on the kidneys. He recommends milk and the farinaceous foods, and the plentiful use of soft water. Alcohol should not be taken. 2. Eliminative, to rid the system of the poisonous products of tissue waste. Increased functional activity of the skin, bowels, and kidneys is indicated. The lungs, too, must be active, which is promoted by a warm climate and fresh air. Benzoate of sodium and urotropin are valuable eliminants. 3. Cardiac, to relieve the heart of the strain caused by the long continued high arterial tension. In urgent cardiac failure the ordinary stimulants are indicated. Saline laxatives relieve the pressure on the right ventricle. High arterial tension must be gradually reduced by nitrites, iodides, and laxatives. The author has had no good results with the treatment of chronic renal disease by the administration of macerated pig kidneys as recommended by Renaut.

Broadbent reduces high pulse tension by the use of mild mercurial aperients. Saundby states that the discovery that all renal albuminuria does not necessarily mean Bright's disease is only second to the fact that Bright's disease may be cured, or subside, or persist and be compatible with life for twenty or thirty years. Newman discusses the effects of renal incision or decapsulation, and concludes that: 1. It relieves the renal pain of Bright's disease. 2. It often cures in cases of unilateral hæmorrhage. 3. In movable kidney with urinary symptoms, renal incision and fixation often cause the symptoms to disappear. 4. While anuria may be temporarily relieved, a cure is not to be looked for by surgical means in chronic non-infective nephritis. 5. In the uræmia of chronic infective nephritis, free incision of the capsule and cortex relieves the tension and congestion of the parenchyma and enables the kidney to resume its function.

3. **Serum Therapy.**—Goodall reviews the present state of serum therapeutics, and states that in diphtheria it has won great triumphs. In tetanus and snake bite more is to be hoped for in the way of prophylaxis than of cure. In hay fever the outlook is promising; and in plague, dysentery, streptococcal infection and typhoid fever, the results are sufficiently favorable to stimulate to further endeavors. Martin states that the therapeutic value of antitoxic serums is often greatly enhanced by intravenous administration. In diphtheria the improvement is often almost immediate.

4. **Primary Bronchopneumonia.**—West describes a disseminated form of croupous pneumonia in children, and draws these conclusions: 1. That primary and secondary bronchopneumonia have a different bacteriology. 2. That primary bronchopneumonia is of pneumococcal origin. 3. That pneumococcal inflammation is almost as common in children as in adults. 4. That it takes a different form in each—massive consolidation in the adult, disseminated patches in the child.

6. **Tuberculosis.**—Raw again advances his view, based on clinical and pathological evidence, that human and bovine tuberculosis are separate and distinct varieties of disease as shown by Koch; but that the human body is susceptible to both, and especially to bovine tuberculosis in the early periods of life. The two diseases occur so rarely together in man that it is possible they are antagonistic, and that bovine tuberculosis may possibly confer an immunity against human tuberculosis.

7. **Splenic Anæmia.**—Stevens summarizes the clinical features of a series of cases of splenic anæmia. In none were there any evidences of the recognized causes of splenic enlargement. In most cases the disease is chronic and may last for years. Anæmia is always present, but bears no direct relation to the size of the spleen. The splenic enlargement is always marked, and may be enormous. In only one case was ascites present (Banti's disease). The average number of red corpuscles was 3,150,000, the lowest being 1,168,000. The hæmoglobin index was diminished in all cases. Leucocytosis was absent, and the differential counts gave normal results. Many cases are curable by splenectomy. The author thinks we are justified in considering the condition as a distinct clinical entity.

Proceedings of Societies.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Meeting of Wednesday, October 13, 1904.

The president, Dr. ROLAND G. CURTIN, in the chair.

Report of a Case of Subphrenic Abscess, with Illustrative Skiagraphs.—Dr. GEORGE E. PFAHLER, in the report of this case, referred to the difficulty in diagnosis of subphrenic abscess and pointed out the duty of using every known method of investigation. The principal object of the report was to call attention to the aid furnished by careful x ray examination. The patient gave a vague history of an attack of appendicular inflammation beginning ten days before his admission to the hospital. On admission he had a temperature of 101° F.; pulse, 108; respiration, 32. There was slight tenderness in the right iliac region, with increased dulness in the right lumbar region and an immovable area of dulness above the liver. He had a leucocytosis of 322,000. A diagnosis of subphrenic abscess was given and a confirmatory x ray examination was made. This showed the right side of the diaphragm displaced upward. It was immobile, and there was a rise in the outer portion of its curve. The lung was clear above. The patient was operated upon, and a pint and a half of pus was removed. A careful consideration of these points Dr. Pfahler believed would show the valuable additional information given by the x ray.

Dr. JOHN B. SHOBER emphasized the value of the x ray as a confirmatory means of diagnosis and as an adjuvant in therapeutic work in combination with other methods of treatment.

Dr. WILLIAM L. RODMAN felt that Dr. Pfahler had placed the profession under obligations to him in bringing to their aid another means of distinct value in the diagnosis of subphrenic abscess. A point of special interest, he thought, was the history of appendicular inflammation, inasmuch as subphrenic abscess was generally supposed to be the result of gastric ulcer. The fact that the line of dulness was irregular in outline enabled one to distinguish between subphrenic abscess and empyema, which was apt to be the most confusing condition.

The Therapeutic Use of X Rays.—Dr. S. MASON MCCOLLIN referred to the diagnostic aid of the x ray and to the difference in opinion regarding the results obtained by its use. Cases were cited; one patient had suffered with epithelioma of the lips, so extensive that several surgeons declined to operate on it. Dr. McCollin had begun the use of the x ray on it about the middle of July, with daily treatments for the first two weeks; since then every third day. At present the lips were healed, and there was only one large gland under the jaw, which was of not more than half its original size. This patient was exhibited to the society.

One patient with a malignant growth of the breast, which had been twice operated upon, with an ulcerated surface of six by eight inches, was relieved of all pain, skin formed over the ulcer, and life was prolonged nearly a year.

A case of non-malignant warty and painful tumors on the sole of the foot was entirely cured by a few applications of the x ray. Dr. McCollin had also found the x ray valuable in promoting the absorption of enlarged tuberculous glands. The glands should be removed by the knife and the x ray treatment instituted. Special attention was directed to the advisability of applying the x ray after all surgical operations for malignant growths.

Dr. JOHN L. SHOBER spoke upon radium, and cited a number of instances in which he had employed it with distinct benefit.

Dr. CHARLES LESTER LEONARD made a plea that the x ray might have more chance in treatment. He regarded Dr. McCollin's case as a beautiful demonstration of the possibilities of this treatment. The present difficulty was, he said, that the x ray was being asked to cure practically dead patients. What was wanted was the cooperation of the medical men and the surgeons in the use of an agent which had been shown to have such power. The best means known for the treatment of malignancy, Dr. Leonard stated, was an early radical operation, and if to early radical treatment there was added the supplementary treatment by the Röntgen ray, there was a combination of the two methods which scientific medicine had shown most effective in treating this scourge of the human race. He particularly emphasized the fact that it was the duty of the physician to have malignant disease operated on as early as possible, if an operation was possible, and to supplement that operation by the Röntgen treatment.

Dr. PFAHLER congratulated Dr. McCollin upon the remarkable results obtained in his patient. He spoke of four cases of mediastinal growth at present under his treatment, one referred to him five months ago by Dr. Charles P. Noble, after the removal of a mass in the axilla. To-day the patient to all appearances was in perfect health. The three other cases were of too recent record to speak of the result. Two patients with "inoperable" carcinoma of the uterus had apparently recovered. Improvement had also been noted in another case of carcinoma of the uterus with involvment of the rectum.

Dr. JOHN B. ROBERTS asked the opinion of the x ray men of the difference between the action of the x ray and that of radium upon sarcoma and carcinoma, whether scirrhus or epithelioma, and whether they had arrived at any distinct "dosage."

Dr. W. S. NEWCOMET said he believed that the x ray more readily affected the chronic—if such term might be used—form of malignant growths. The question, he thought, was not so much one of "dosage" as of a selection of cases.

Dr. LEONARD, in answer to Dr. Roberts, said that a "dosage" in x ray was practically the same as with any drug or other remedy; it depended upon the individual and the case. The treatment for epithelioma, for carcinoma, and for sarcoma was widely different. The difference of the tube, the position of the patient, etc., were to be taken into account. The treatment of sarcoma had been shown to be more effective when it had been divorced completely from operation. In a case of a mass of the tonsil filling the pharynx the growth had disappeared under treatment by the x ray, and the man had been at work for over a year. The case had been referred to him as "inoperable" by Dr. John B. Deaver. Hard growths were more amenable to x ray treatment than soft, and the less rapid growths than the rapid growths.

Dr. McCollin said he thought the difficulty was that physicians did not realize that the object was to get the effect, and this was to be got only by experience. In many cases the ray must be used almost to the burning point, when the effect was very rapid. When there was a resultant dermatitis, an encouraging effect was secured.

The Value of Stereoscopic Skiagraphy.—Dr. M. K. Kassabian, in a paper thus entitled, reviewed the history of stereoscopy and described the methods, principles, and technique and the application to the art of skiagraphy. He showed a special table and an adjustable plate changer or holder which he had devised and by which he had overcome many difficulties. He exhibited x ray negatives and prints made by means of Wheatstone's reflecting stereoscope; also reduced prints and transparencies made from large negatives, by means of the ordinary (refracting) Brewster's hand stereoscope. The value of this method Dr. Kassabian pointed out to be as follows: In anatomy, in studying the structure of the osseous system, trabeculæ, sinuses, grooves, projections, the exact relations of the articulating surfaces of the joints, blood vessels, bronchi, and other secretory and excretory canals; in surgery, in cases of fractures, the amount of deformity, the separation being as plainly visible as if the real skeleton were being observed. In dislocations the method would show the exact existing condition, as an ordinary skiagram could not distinguish the backward dislocation from the forward one, because the shadows would be the same. In examination for foreign bodies the surgeon would see the foreign body by this method imbedded in the tissue in the relation to other organs. He urged that the method be employed in hospitals and in colleges in teaching anatomy and in private practice.

Dr. John L. Borsch congratulated Dr. Kassabian on his paper and on the exhibition of his method, which he thought would be of inestimable value to surgeons, and especially to ophthalmologists in locating foreign bodies in the eye. A great deal of interest was shown in Dr. Kassabian's ingenious method by the members present.

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An American Hospital for Owoonya, Persia.—Mrs. Simon Reed, donor of the Reed Memorial Library and chapel at Lake Forest University, Illinois, has donated $7,000 to the Presbyterian board of missions to be used for the erection of a hospital at Owoonya, Persia. The new hospital will be conducted in connection with a large Presbyterian mission already established there.

New Inventions.

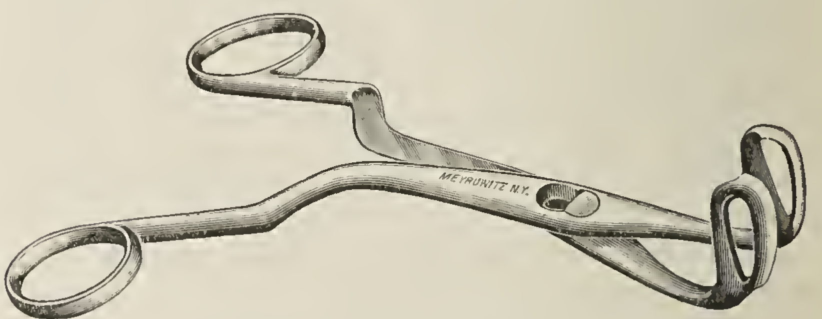
IMPROVED FORCEPS FOR THE REMOVAL OF ADENOID GROWTHS.*

By THOMAS R. FRENCH, M. D.,

BROOKLYN.

The value of an instrument can only be proved by its use. This one has been in use since November last, and has been tested in two hundred or more operations; a sufficient number perhaps upon which to form an opinion of its merits. I exhibited a forceps for the removal of adenoid growths before this body in 1899. The cutting edges of that instrument are somewhat blunt and, therefore, quite a number of seizures are required for the removal of the entire mass. Experience has proved that instrument to be lacking in power, because of too great delicacy in construction.

The new model is an improvement upon the former instrument in that the cutting edges are as sharp as scissors and the upper curve of the cutting edges is considerably prolonged toward the handles. The instrument is much heavier and therefore stronger, grips firmly, and has a good balance. Although I have not had an experience to prove it, I am inclined to believe that the bite of the forceps is large enough to make it possible to seize and injure the vomer if the handles should be depressed and the cutting end drawn forward. As injury to the vomer is apt to be followed immediately by free bleeding, and as it increases the chances of secondary hæmorrhage, it is highly desirable that that structure shall not be wounded. Forceps as large and powerful as this one ought not to be used by inexpert operators.



French's improved adenoid forceps.

If, after the forceps is passed up behind the velum, the cutting blades are widely expanded and pressed firmly upward and backward, and held as high up and as far back as possible, while the cutting edges are being brought together, almost every growth of moderate size can be completely extirpated in one cut, and not more than three or four cuts are necessary in any case to thoroughly eradicate every vestige of the growth. I am now testing a still larger forceps, which is even more rapid in its action than the one here presented. The model is the same as this one except that it has a longer cutting edge. I think it wise, however, to subject it to a more extended trial than it has thus far had before permitting it to be placed in the catalogue of the instrument maker.

Now that I am writing on one phase of the subject of adenoid growths, I hope it will not seem strained to you if, in this connection, I give expression to a thought bearing upon the diagnosis of this affection in children.

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* Exhibited before the American Laryngological Association at its twenty-sixth congress, June 2, 1904.

In a paper on Adenoid Growths with Special Reference to Adult Conditions, read by Dr. James E. Logan, before this association, a year ago, the statement was made that "a careful examination of many hundreds of cases reveals the fact that, with very few exceptions, where we found enlarged faucial tonsils there existed the same condition in the vault. Our records show but few exceptions, so few indeed that we are forced to accept it as the rule." This statement referred to children. My experience with this disease leads me to advance a step further and say that in *all* cases of well marked hypertrophy of the faucial tonsils a mass of adenoid tissue will be found in the vault of the pharynx, of sufficient size to require removal. It is true that the mass is not always large or in proportion to the size of the tonsils, but my statement is that the growth is in every case large enough to produce symptoms, or to be a menace to the health of the patient.

Adenoid growths are not always accompanied by hypertrophied faucial tonsils, but, basing the belief on the fact that I have never yet seen a case, not previously operated upon, of enlarged faucial tonsils without an accompanying adenoid growth, I think it perfectly safe to say that hypertrophied tonsils in children are always a proof of the existence of an adenoid growth in the pharyngeal vault. The diagnosis by means of the rhinoscopic mirror cannot often be made in children even by expert rhinoscopists. The passage of the forefinger is always a disagreeable if not painful procedure. If on depressing the tongue a diagnosis of an adenoid growth can be made, as I believe that it always can, by finding the faucial tonsils considerably enlarged, the ease of arriving at a knowledge of the existence of a growth will result in bringing relief to a much larger number of the subjects of this affection.

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Miscellany

The Diet in Gallstone Disease.—Clemm, in *Fortschritte der Medizin,* for September 10, 1904, reasoning from the standpoint of the followers of Naunyn, observes that only when there is stasis of the bile can the causes of this disease locate themselves in the bile passages and result in the formation of stones and severe inflammations. Consequently prophylaxis as well as treatment must depend upon the maintenance of a normal bile current, and this end will be best attained by a suitable mode of life and a carefully regulated diet. Since the fats and meat have the most significant influence in the secretion of the bile, he believes that these substances should form a very important portion of the diet. Substances which he endeavors to prove are of the greatest importance from the point of view from which he is reasoning, are milk, cream, butter, yolk of eggs, meat gravy, smoked ham and bacon, and the various edible oils. Cakes and pastry should be omitted. An exclusive milk diet is not desirable. Fresh vegetables, well baked bread, fruits, a moderate quantity of alcohol in a mild form, and plenty of pure water complete the dietary.

A Study of Intestinal Perforation and Peritonitis in Typhoid Fever, with a Report of Three Successful Operations and a Statistical Investigation of 295 Operative Cases.—Haggard, in the *American Journal of Obstetrics,* for September, 1904, thinks one of the greatest of the modern surgical achievements consists in relieving one who suffers from intestinal perforation in typhoid fever. The first operation was done by Mikulicz in 1884. Since then, 295 cases have been published, and probably as many more have not been reported. It is estimated that 25,000 persons die annually from this cause and probably a third of these could be saved by timely operation. It is admitted that the difficulties which surround the situation are great. The physician is reluctant to call the surgeon, death may come in spite of an operation, and the diagnosis may be obscure and uncertain. Ordinarily the accident would occur in the third week of the fever, which may have been following a mild course, pain suddenly coming in the right lower quadrant of the abdomen, with collapse, subnormal temperature, rapid pulse followed in a few hours by rise of temperature, pain, tenderness, and rapidly increasing leucocytosis. These symptoms indicate an abdominal section and as quickly as possible.

The following sentences summarize the facts in regard to intestinal perforation, so far as they are known at present: 1. 80.9 per cent. occur in men, 19.1 per cent. in women. It is rare in children. 2. It occurs in 2.5 per cent. of all cases of typhoid fever. 3. 3.31 per cent. occur in the first week, 20.19 in the second, 38.94 in the third, 14.40 in the fourth, 9.13 in the fifth, 5.75 in the sixth, 7.21 from the seventh to the eleventh, and it has occurred as late as the hundredth day. 4. It occurs more frequently in severe attacks, but may occur in mild attacks, and may be the first marked symptom of walking typhoid. 5. It occurs in the ileum in 95.5 per cent. usually within 18 inches of the cæcum, always within three feet. It occurs in the large intestine in 12.9 per cent. of cases, and is most often situated in the ascending, transverse, and descending colon, the sigmoid flexure, and rectum, in the order mentioned. It may also occur in the appendix, Meckel's diverticulum, and the jejunum. 6. The perforation is single in 84 per cent. of cases. There may be two or more. In one case in which an autopsy was made there were twenty-five cases with diarrhœa, and tympanites may be said to be predisposed to the accident. Six cases out of thirty were attended with hæmorrhage. 7. According to Murchison, the death rate is 90 to 95 per cent. Osler does not recall a case in his experience which recovered.

Of course, it is possible to make an incision and find no perforation. The incision should be in the right iliac region unless there is general peritonitis, when a central incision is to be preferred. If an ulcer is found it may be trimmed, excised, or inverted. A mattress suture is preferable, and it may be transverse or longitudinal. The vessels near the mesentery must be spared as far as possible. Search should be made for other perforations, and resection practised if there is much destruction of tissue, but an artificial anus is preferable in debilitated cases.

During the twenty years since the operation was first performed, 27 per cent. of the operations have resulted in the cure of the patients.

Study of the Albuminuria of Pregnancy.—Little, in the *American Journal of Obstetrics*, for September, 1904, has deduced from tables which he has prepared, the following conclusions:

1. Albumin is noted in the catheterized specimens of urine from about one half of all pregnant women, being equally frequent in primiparæ and multiparæ. On the other hand albumin is found more frequently in voided specimens from multiparæ. 2. Casts apparently occur with greater frequency in multiparæ. 3. At the time of labor there is a marked increase in the incidence of albumin alone, and of albumin associated with casts, the increase in each case being especially marked in primiparæ. This may be due to the muscular work and increase of blood pressure during labor 4. It is not unusual during pregnancy, labor, and the puerperium, to find casts present without albumin. The quantity of albumin may, however, be too small for ready recognition. 5. Albumin and casts are frequently found in the puerperium, but less often than in pregnancy. In the author's tables, there was no case in which albumin was present during pregnancy and absent at the time of labor, while there were but three cases which showed casts during pregnancy and not at labor. On the other hand, two thirds of the cases showing casts at the time of labor presented albuminuria during pregnancy.

The following general facts were noted: 1. In 9 cases of threatened eclampsia, and 25 others with definite eclampsia, albumin was invariably present. Casts were present in 22 of the above 25. 2. A case of hyperemesis gravidarum showed much albumin and many casts. This and other similar cases show its toxæmic character. 3. Albumin and casts during the puerperium were most frequent in cases in which they were observed during pregnancy. 4. Albuminuria was noted in 4 cases of abortion, 2 of which were due to syphilis, and 1 each to typhoid fever and chronic nephritis. In no case was abortion associated with uncomplicated albuminuria. 5. Nausea and vomiting were noted in 20 per cent. of the primiparæ and $33^1/_3$ per cent. of the multiparæ. Albuminuria was present in these cases at a later period, and in one third of them there was œdema. 6. In 75 per cent. the clinical history was followed during the last eight weeks of pregnancy. Puerperal infection, or intercurrent disease in the puerperium seemed to prolong the duration of the albuminuria. The shape of the pelvis had no bearing on the incidence of albuminuria. The weight of the children and the relative average age of the mothers had no bearing on the condition of the kidneys. A true nephritis, in connection with the albuminuria of pregnancy, was believed to be a rare condition. Should it occur, the symptoms would be much more definite than in simple albuminuria.

There are two general theories as to the cause of the condition; one being mechanical pressure, and the other quantitative or qualitative alteration of the blood. The former has been abandoned to a great degree, though there are cases in which the evidence that it applies is convincing. As to the latter, there is little doubt that the presence of a living fœtus is accountable for certain products in the circulation which cause headache, nausea, vomiting, and changes in many of the abdominal organs. The train of symptoms bears an analogy to those induced by other toxines, especially those of scarlet fever.

Rules Concerning the Medical Schools of Kentucky.—After conferring with the deans of the four medical colleges in Louisville and securing their approval of certain changes in the manner of educating medical students, the State board of health met on September 6th and passed a long resolution looking toward the securing of a higher grade of scholarship. It has been stated that the new rules were opposed by the deans of the medical colleges, but exactly the contrary is true, as they were indorsed by all of these officials before being submitted to the board of health.

One rule provides that hereafter there shall be only one school term during the year. Heretofore there have been two terms, but the medical schools had about decided to go back to one.

It was also decided that hereafter rigid entrance examinations shall be required before any student shall be admitted to a medical college. This is for the purpose of ridding the colleges of illiterate students.

No medical school will be recognized as first class that is located in a city of under 50,000 inhabitants unless it is located where there is a State institution.

Physicians from other States coming to Kentucky must hereafter stand an examination before being admitted to practice.

Each medical school, according to the resolution, shall literally observe its own published requirements for admission, tuition, time of attendance at the annual sessions, and graduation, which must be definitely expressed.

It shall have adequate equipment and an active and competent faculty, for teaching the science and art of medicine, embracing the following departments, viz.: Anatomy, physiology, chemistry, pathology, histology, bacteriology, surgery, obstetrics, gynæcology, ophthalmology, otology, hygiene, and State medicine, medical jurisprudence, physical diagnosis, and therapeutics and practice, in accordance with the system to which the college belongs.

It shall have clinical and hospital facilities, based upon a minimum municipal population, at its place of location, of not less than 50 000; provided, that this requirement shall not apply to institutions under State control, which, by virtue of such control, receive patients gratuitously from all parts of such State.

It shall require actual attendance upon 80 per cent. of each of four courses of instruction of not less than thirty weeks, excluding holidays, in four separate years, and shall not hold more than one graduating course in any year.

It shall not offer or accept scholarships, or notes, or any reduction in fees, or any form of rebates, except as provided for or required under State laws, or under the laws of endowed universities, and no student shall be given credit for attendance or advanced or shall graduate until all fees have been paid.

The requirements for matriculation are also specified. It is stated that, in consequence of this resolution, there is some possibility of a combination of the four medical colleges in Louisville, and the formation of two large colleges instead of four. This proposition has been suggested, but no definite steps have been taken toward carrying it out, and, in fact, no meetings of any kind have yet been held between the heads of the various colleges.

Book Notices.

The Suppression of Tuberculosis. Together with Observations concerning Phthisiogenesis in Man and Animals, and Suggestions concerning the Hygiene of Cow Stables and the Production of Milk for Infant Feeding; with Special Reference to Tuberculosis. By Professor E. von Behring, University of Marburg. Authorized Translation by Charles Bolduan, M. D. New York: John Wiley & Sons. London: Chapman & Hall, Limited, 1904. Pp. v-85. (Cloth, $1.00.)

This little volume contains the lecture delivered in Cassel at the seventy-fifth meeting of naturalists and physicians, September, 1903, also Behring's observation concerning phthisiogenesis in man and animals, and, thirdly, what are known as the Bonn rules in regard to the hygiene of cow stables and the production of milk for infant feeding, with special reference to tuberculosis.

In the first portion of the Cassel lecture Behring emphasizes the identity of the tubercle bacillus in man and cattle, and, while acknowledging that the tubercle bacilli derived from cattle are more virulent for all animal species thus far examined than human tubercle bacilli, and that the bovine tubercle bacillus is more virulent for man, he says pointedly: "Nowadays all botanists and zoologists agree that the membership of species is determined by the origin of the organism." The majority of men that have studied the biology of the bacillus agree in this view. The same, however, cannot be said when he comes to the conclusion that "milk fed to infants is the chief cause of consumption." While not absolutely denying the possibility of direct tuberculous infection of the upper air passages, he does not consider this as a great ætiological factor of tuberculosis. Consumption appearing in adults, he maintains, is always the result of secondary infection. To this we do not agree. In Japan the children are never fed with cow's milk, yet tuberculosis is quite prevalent. He says that the opportunity for infection with tubercle bacilli cannot, by itself, be a deciding factor in the development of pulmonary consumption unless there has been an infantile infection. The experience of hundreds of family practitioners, who have been careful observers of children and adults for years in succession, proves the contrary.

Behring's rules for the hygiene of the stable are admirable and deserve to be put into practice everywhere. We have not the space to dwell upon his interesting description of the experiments by which he professes to have succeeded in immunizing cattle. They should be read by all interested in the tuberculosis problem, and it is to be hoped that they will be many times repeated and corroborated. While the reviewer is less optimistic than the distinguished professor of Marburg regarding the immunization of man against tuberculosis, and believes more in better hygiene, better housing, and better feeding of the masses as means of the ultimate eradication of tuberculosis, he certainly wishes that Behring might succeed in making "all homes and sanatoria for the treatment and care of consumption unnecessary by means of a protective agent similar to that by which Jenner made smallpox to almost disappear and pesthouses for smallpox unnecessary."

International Clinics. Edited by A. O. J. Kelly, A. M., M. D., Philadelphia. Vol. II. Fourteenth Series. Philadelphia: J. B. Lippincott Company, 1904.

This volume of the series contains a number of very interesting papers, especially in the section on diseases of warm climates. The spread of diseases by insects, with suggestions regarding prophylaxis, is summarized by Dr. C. F. Mason. Dr. John McCrea reviews recent progress in our knowledge of trypanosomiasis, plague, yellow fever, malaria, dengue, dysentery, and other tropical diseases. Dr. C. Jarvis has a brief paper on sleeping sickness. Dr. W. Krauss contributes an excellent study of malarial hæmaturia. Dr. Allen J. Smith's paper on uncinariasis is a thorough study of that subject. Dr. James Cantlie briefly but thoroughly reviews liver abscess and its treatment, a subject that is also considered by Dr. J. E. Thompson. There are interesting articles on treatment and various medical and surgical topics, and the volume sustains the high reputation that the series possesses.

Transactions of the Medical Society of the State of New York, for the Year 1904. Published by the Society, 1904.

This volume contains the various transactions of the society at its annual meeting last January, an account of which was published about that time. The prompt appearance of the book reflects great credit on the energy of the secretary.

Health and Disease in Relation to Marriage and the Married State. A Manual Contributed to by Privatdozent Dr. Med. G. Abelsdorff, Privatdozent Dr. Med. L. Blumreich, Privatdozent Dr. Phil. R. Eberstadt, Geh. Med.-Rat Professor C. A. Ewald, Geh. Med.-Rat Professor Dr. A. Eulenburg, Geh. Med.-Rat Professor Dr. P. Fürbringer, Hofrat Professor Dr. Med. M. Gruber, Dr. Med. W. Havelburg, Geh. Med.-Rat Professor Dr. A. Hoffa, Professor Dr. Med. et Phil. R. Kossmann, Geh. Med.-Rat Professor Dr. F. Kraus, Dr. Med. R. Ledermann, Med.-Rat Dr. A. Leppmann, Geh. Med.-Rat Professor Dr. E. v. Leyden, Professor Dr. Med. E. Mendel, Dr. Med. A. Moll, Geh. Med.-Rat Professor Dr. A. Neisser, Geh. Med.-Rat Professor Dr. J. Orth, Dr. Med. S. Placzek, Professor Dr. Med. et Phil. C. Posner, Privatdozent Dr. Med. P. F. Richter, Professor Dr. Med. H. Rosin, Dr. Med. W. Wolff. Edited by Geh. Med.-Rat Professor Dr. H. Senator and Dr. Med. S. Kaminer. The Only Authorized Translation from the German into the English Language, by J. Dulberg, M. D., of Manchester, England. Vol. I. New York: Rebman Company. London: Rebman, Limited.

In the introduction to this volume Professor Senator expresses the belief that there is every justification for this unique attempt to prepare a manual in which all the questions that pertain to the hygiene and diseases of marriage and married life may be so considered as to serve as a source of information and guide to medical men.

Professor M. Gruber is the author of the section on the hygienic significance of marriage, a topic that is likely to be academic rather than practical until there is a revolution in human character. Professor J. Orth writes on inherited and congenital diseases and predispositions to disease, and we regret that space precludes a summary of his statement of the theoretical foundations of heredity. Professor F. Kraus, in an interesting paper, states the consequences of consanguinity in marriage and its effects on the offspring. Dr. W. Havelburg is the author of a section on climate, race and nationality in relation to marriage. Professor P. Fürbringer describes as decorously as possible the sexual hygiene of married life. Professor P. Kossmann gives a brief summary of menstruation, pregnancy, childbed, and lactation in relation to marriage. Professor H. Senator considers certain constitutional diseases in relation to marriage. Professor H. Rosin describes the influence of blood diseases upon marriage and of marriage on blood diseases. Professor E. von Leyden and Dr. W. Wolff are the authors of the chapter on diseases of the vascular system in relation to marriage. In the chapter on diseases of the respiratory organs in relation to marriage, Dr. S. Kaminer gives some interesting data in regard to tuberculosis. Professor C. A. Ewald considers the reciprocal relations between marriage and diseases of the digestive organs. The final chapter, on diseases of the kidneys in relation to marriage, is by Dr. P. F. Richter.

The volume will be of interest to the general practitioner who is likely to be called on for advice by those contemplating matrimony or newly married. The translator has discharged a difficult task quite satisfactorily.

Clinical Lectures and Essays on Abdominal and Other Subjects. By H. D. ROLLESTON, M. A., M. D., Cantab., F. R. C. P., Physician to St. George's Hospital; formerly Fellow of St. John's College, Cambridge, etc. Philadelphia: P. Blakiston's Son & Co., 1904. (Cloth, $1.50.)

This volume is a collection of reprints of clinical lectures and papers on a variety of topics, including vomiting in diphtheria, the treatment of gastric ulcer, primary carcinomatous stricture of the duodenum, of the ampulla of Vater, and of the appendix, some points in the treatment of typhoid fever, ascites, melanotic sarcoma of the liver, hypostatic albuminuria, persistent hereditary œdema, von Recklinghausen's disease, progressive myositis ossificans, acute non-rheumatic synovitis, the uses and abuses of arsenic, the treatment of acromegaly, and the antagonism of some diseases. Each of the papers is interesting, suggestive, and deserving of this form, which makes them more accessible than in the files of various medical journals.

Diseases of the Stomach and Their Surgical Treatment. By A. W. MAYO ROBSON, F. R. C. S., and B. G. A. MOYNIHAN, M. S., Lond., F. R. C. S. Second Edition. New York: William Wood & Co., 1904. (Cloth, $4.25.)

The authors ventured the opinion in the first edition of this work, published some two years ago, that surgical intervention in both simple and malignant disease of the stomach would be much more frequent in the future than it had been in the past. This prediction has been justified by their experience, which has grown from more than two hundred to more than six hundred operations on the stomach, and by a wealth of literature in regard to operative measures in this important field of surgery.

A material advantage of this development of professional experience and opinion is shown by the fact that the authors' death rate in cases of simple gastroenterostomy is well under five per cent., though many of the patients were operated upon when in a serious condition as a result of hæmorrhage or of chronic indigestion with frequent vomiting.

Necessarily the mortality is greater in operations for malignant disease, both because of its extent and nature and because of the age or the enfeebled condition of the patient. Later and more extensive experience has shown the authors the advisability of the more frequent performance of gastrectomy than of gastroenterostomy. While either of these operations may afford very great relief, it remains to be proved whether they will effect a radical and enduring cure. But twenty-five years have elapsed since Péan first did the operation of gastrectomy in man, and but twenty-three years have passed since Wölfler first did a gastroenterostomy; but since the time of those operations there has been such great improvement in surgical procedures, that it is but just that we should wait to formulate the experience of these later years. This improvement is shown by the reduction of the mortality of operations for simple gastric ulcer from sixteen per cent. in former, to less than five per cent. in recent years.

The entire volume has been revised carefully and it maintains its position as the foremost authority in this field of surgery.

Regional Minor Surgery. By GEORGE GRAY VAN SCHAICK, Consulting Surgeon to French Hospital, New York. Second Edition, Enlarged and Revised. New York: International Journal of Surgery Company. Pp. 228. (Price, $1.50.)

The opportunity afforded by the necessity for a second edition of this work has enabled the author to make such additions and revisions as were advisable. The book accomplished its object, that of furnishing the general practitioner with a practical treatise on the minor surgery that is likely to come in the course of the day's work.

BOOK AND MAGAZINE NOTES.

A Passport to Paradise is the latest of Miss Myra Kelly's remarkable stories of the East Side. It appears in *McClure's Magazine* for November. The stories teach apparently that in certain schools the individuality of the teacher is much more important than the system.

The Golden Rules of Anæsthesia form the fourteenth volume of a vest pocket series of books issued by John Wright & Co., of Bristol, England. The author, Dr. R. J. Probyn-Williams, has crowded a good deal of valuable and accurate information into the 67 tiny pages, which all but our anæsthetic specialists will find useful in emergencies.

In the November *Century*, Andrew D. White tells of A Diplomat's Recollections of Russia. He speaks of the approach of the cholera, especially on the Persian frontier. Admirable precautions had been taken for securing telegraphic information, and every day he received notices from the Foreign Office as to the result, which he communicated to Washington. For ages Russia had relied on fetishisms of various kinds to preserve her from epidemics, but at last her leading officials had come to realize the necessity of applying modern science to the problem, and they did this well. In the city sanitary columns were established, made up of small squads of officials representing the medical and engineering professions and the police. These visited every nook and corner of the city, and, having extraordinary powers for the emergency, compelled even the most dirty of the population to keep their premises clean. Excellent hospitals and laboratories were established, and of these Mr. White learned much from a former Cornell student, who held an important position in one of them. Coming to town three or four times a week from his summer cottage in Finland, he was struck by the precautions on the Finnish and other railways; notices of what was to be done to prevent cholera and to meet it in case it appeared were posted everywhere in six different languages; disinfectants were made accessible everywhere; the seats and hangings in the railway cars were covered with leather cloth frequently washed with disinfectants; and to the main trains a hospital car was attached, while a temporary hospital, well equipped, was established at each main station. In spite of this the number in the cholera hospitals at St. Petersburg in the middle of July rose to a very high figure, and the number of deaths each day from cholera was about one hundred. With one exception the patients were almost entirely from the peasant class. Although boiled water was supplied for drinking purposes, and some public spirited individuals went so far as to set out samovars and the means of supplying hot tea to peasant workmen, the answer of one of the muzhiks when told that he ought to drink boiled water indicated the peasant view: If God had wished us to drink hot water He would have heated the Neva.

BOOKS, PAMPHLETS, ETC., RECEIVED.

Textbook of Nervous Diseases and Psychiatry. For the Use of Students and Practitioners of Medicine. By CHARLES L. DANA, A. M., M. D., Professor of Nervous Diseases and (*ad interim*) of Mental Diseases in Cornell University Medical College; Visiting Physician to Bellevue Hospital, etc. Sixth Revised and Enlarged Edition. Pp. xii-690, Illustrated by 244 Engravings and 3 Plates in Black and Colors. New York: William Wood & Co., 1904. [$4.00 net.]

A Practical Treatise on Diseases of the Skin. For the Use of Students and Practitioners. By JAMES NEVINS HYDE, A. M., M. D., Professor of Skin, Genitourinary, and Venereal Diseases, Rush Medical College, Chicago; Dermatologist to the Presbyterian, Augustana, and Michael Reese Hospitals of Chicago, etc., and FRANK HUGH MONTGOMERY, M. D., Associate Professor of Skin, Genitourinary, and Venereal Diseases, Rush Medical College, Chicago; Professor of Skin and Venereal Diseases, Chicago Clinical School, etc. Seventh and Revised Edition. Pp. 938, Illustrated with 107 Engravings and 34 Plates in Colors and Monochrome. Philadelphia and New York: Lea Brothers & Co., 1904.

The Urine; and Clinical Chemistry of the Gastric Contents, the Common Poisons, and Milk. By J. W. HOLLAND, M. D., Professor of Medical Chemistry, Jefferson Medical College of Philadelphia. Seventh Edition, Revised and Enlarged. Pp. 174, with 41 Illustrations. Philadelphia: P. Blakiston's Son & Co., 1904. [$1.00 net.]

Studies from the Rockefeller Institute for Medical Research. Reprints, Volume II. Pp. v-482. 1904.

Fortieth Annual Report of the Trustees of the Boston City Hospital. Including the Report of the Superintendent Upon the Hospital Proper, the South Department for Infectious Diseases, the Relief Station at Haymarket Square, the Convalescent Home at Milton Lower Mills, and also the Medical and Surgical Statistics, House Rules, with Rules for Admission, Discharge, and Government of Patients, etc. For the Fortieth Year, February 1, 1903, to January 31, 1904, Inclusive. Pp. 186. Boston: Municipal Printing Office, 1904.

V. Internationaler Dermatologen-Kongress abgehalten in Berlin vom 12 to 17 September, 1904. Verhandlungen und Berichte herausgegeben von Sanitätsrat Dr. O. ROSENTHAL, General-Sekretär. I. Band. Pp. v-394. Berlin: August Hirschwald, 1904.

The Cause and Prevention of Consumption. Circular Issued by the Illinois State Board of Health, 1904 Third Revised Edition. Pp. 24.

Official News.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the week ending October 22, 1904:

Smallpox—United States.

Place.	Date.	Cases.	Deaths.
Illinois—Chicago	Oct. 8-15	6	
Massachusetts—North Adams	Oct. 8-15	1	
Michigan—At 42 places	Oct. 1-8	Present.	
Minnesota—St. Paul	Oct. 3-10	7	
Missouri—St. Louis	Oct. 10-17	7	3
New York—New York	Oct. 8-15	1	
Pennsylvania—Philadelphia	Oct. 8-15	1	

Smallpox—Foreign.

Place.	Date.	Cases.	Deaths.
Africa—Cape Town	Aug. 27-Sept. 3	1	
Austria-Hungary—Prague	Sept. 25-Oct. 2	2	
Brazil—Bahia	Sept. 3-24	45	4
Brazil—Rio de Janeiro	Aug. 28-Sept. 18	997	434
China—Shanghai	Sept. 10-17		3
France—Paris	Sept. 25-Oct. 1	7	1
Great Britain—Leeds	Sept. 25-Oct. 8	5	
Great Britain—Manchester	Sept. 25-Oct. 1	6	
Gt. Britain—Newcastle-on-Tyne	Sept. 25-Oct. 1	3	
Great Britain—Nottingham	Sept. 25-Oct. 1	3	
India—Bombay	Sept. 13-20		2
Mexico—City of Mexico	Sept. 25-Oct. 1	4	1
Russia—Moscow	Sept. 17-24	7	2
Russia—St. Petersburg	Sept. 17-24	3	3
Russia—Warsaw	Aug. 20-Sept. 10		55
Spain—Barcelona	Sept. 1-30		6
Turkey—Beirut	Sept. 25-Oct. 1	Present.	
Turkey—Constantinople	Sept. 26-Oct. 2		19
Venezuela—La Guaira	Oct. 1	Present.	

Yellow Fever.

Place.	Date.	Cases.	Deaths.
Mexico—Coatzacoalcos	Sept. 25-Oct. 8	16	5

Cholera.

Place.	Date.	Cases.	Deaths.
India—Bombay	Sept. 13-20		13
India—Calcutta	Sept. 10-17		3
Persia—Resht	Sept. 17	Epidemic.	

Plague.

Place.	Date.	Cases.	Deaths.
Africa—Cape Colony	Sept. 3-10	2	1
Australia—Brisbane	Aug. 13-20	3	2
Australia—Brisbane	Aug. 20-27	2	
Brazil—Bahia	Sept. 3-24		12
Brazil—Rio de Janeiro	Aug. 28-Sept. 18	53	14
India—Bombay	Sept. 13-20		51
India—Calcutta	Sept. 10-17		2
India—Karachi	Sept. 11-18	4	5
India—Madras	Sept. 10-16		1

Public Health and Marine Hospital Service:

Official List of Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the Public Health and Marine Hospital Service for the seven days ending October 19, 1904:

CUMMING, H. S., Passed Assistant Surgeon. Granted leave of absence for one month, or so much thereof as may be necessary, on account of sickness. October 13, 1904.

RODMAN, J. C., Acting Assistant Surgeon. Granted leave of absence for three days from October 17th.

SAFFORD, M. V., Acting Assistant Surgeon. Granted leave of absence for three days from October 11, 1904, under paragraph 210 of the regulations.

WALKER, R. T., Acting Assistant Surgeon. Granted leave of absence for twenty-two days from November 1st.

BROCK, G. H., Pharmacist. Upon being relieved at St. Louis, Mo., by Pharmacist J. M. Bell, to proceed to San Francisco, Cal., and report to the Medical Officer in Command for duty and assignment to quarters. October 12, 1904.

DAVIS, H. E., Pharmacist. Granted leave of absence for fifteen days from October 14th.

HOLT, E. M., Pharmacist. Granted leave of absence for eighteen days from October 26th.

HALL, L. P., Pharmacist. Granted leave of absence for thirty days from November 4th.

BELL, J. M., Pharmacist. To proceed to St. Louis, Mo., and report to the Medical Officer in Command for duty and assignment to quarters, relieving Pharmacist G. H. Brock. October 12, 1904.

Boards Convened.

Board convened to meet at Washington, D. C., October 14, 1904, for the physical examination of an officer of the

Revenue Cutter Service. Detail for the board—Assistant Surgeon General W. J. PETTUS, chairman. Assistant Surgeon General H. D. GEDDINGS, recorder.

Board convened to meet at Stapleton, N. Y., October 26, 1904, for the physical examination of an officer of the Revenue Cutter Service. Detail for the board—Passed Assistant Surgeon C. H. LAVINDER, chairman. Assistant Surgeon T. D. BERRY, recorder.

Board convened to meet at Baltimore, Md., October 26, 1904, for the physical examination of officers of the Revenue Cutter Service. Detail for the board—Assistant Surgeon C. W. WILLE, chairman. Acting Assistant Surgeon G. H. STEUART, recorder.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending October 22, 1904:

COLE, H. W., Assistant Surgeon. Ordered to the Naval Museum of Hygiene and Medical School, Washington, D. C.

FAUNTLEROY, A. M., Passed Assistant Surgeon. Commissioned a passed assistant surgeon, with the rank of lieutenant, from September 28, 1904.

HOLCOMB, R. C., Passed Assistant Surgeon. Detached from the *Mayflower* and ordered home to await orders.

VICKERY, E. A., Assistant Surgeon. Appointed an assistant surgeon, with the rank of lieutenant, junior grade, from October 11, 1904.

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending October 22, 1904:

APPEL, D. M., Lieutenant-Colonel and Deputy Surgeon-General. Leave of absence extended to November 30, 1904.

CRAIG, CHARLES F., First Lieutenant and Assistant Surgeon. Granted ten days' leave of absence.

FORD, CLYDE S., First Lieutenant and Assistant Surgeon. Granted seven days' leave of absence.

KIERSTED, HENRY S., First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Myer, Va., and ordered to proceed to Fort Snelling, Minn., to accompany the Twenty-first Infantry to San Francisco, Cal.; upon completion of this duty ordered to proceed to the Presidio of Monterey, Cal., for duty at that post.

MEARNS, EDGAR A., Major and Surgeon. Arrived from San Francisco, Cal., from Manila, on the *Logan*.

STEPHENSON, W., Major and Surgeon. Ordered to proceed to Fort Snelling, Minn., not later than October 30, 1904, to accompany the Twenty-first Infantry to San Francisco, Cal.

VEDDER, EDWARD B., First Lieutenant and Assistant Surgeon. Ordered to proceed to San Francisco, Cal., for transportation to Manila on the transport leaving that port on or about December 1, 1904.

WILLIAMSON, L. P., First Lieutenant and Assistant Surgeon. Reports from sick in St. Luke's Hospital, St. Louis, Mo., to absent on fifteen days' leave of absence.

WILSON, J. S., First Lieutenant and Assistant Surgeon. Ordered to accompany the Fifteenth Cavalry from Fort Myer, Va., to Fort Ethan Allen, Vt.

Births, Marriages, and Deaths.

Married.

BASCOM—PIERSON.—In Rochester, N. Y., on Tuesday, October 11th, Dr. Frank T. Bascom and Miss Mary Cornelia Pierson.

BECKER—MANSBACH.—In Philadelphia, Pennsylvania, on Monday, October 17th, Dr. Edwin I. Becker and Miss Irma Mansbach.

CARSON—VAN AUKEN.—In Washington, D. C., on Tuesday, October 11th, Dr. Chaplain Hynson Carson and Miss Ruth Waugh Van Auken.

COPELAND—TUTHILL.—In Washington, D. C., on Tuesday, October 18th, Dr. Edgar P. Copeland and Miss Anna Frances Tuthill.

ERKENBACK—ROSE.—In Baltimore, Maryland, on Wednesday, October 19th, Dr. Clarence Erkenback and Miss Teresa Rose.

HUNT—CARLTON.—In Washington, D. C., on Wednesday, October 12th, Dr. Frederick L. Hunt and Miss Janie Carlton.

KONZELMAN—PEDERSEN.—In Chicago, Illinois, on Wednesday, October 5th, Dr. Otto W. Konzelman and Miss Marie Pedersen.

LAUTENBACH—HECKMAN.—In Baltimore, Maryland, on Tuesday, October 18th, Dr. George W. Lautenbach and Miss Mary Alberta Heckman.

MCKENNA—PASCUAL.—In Brooklyn, N. Y., on Tuesday, October 18th, Dr. Frederick McKenna and Miss Louise Pascual.

PAUL—MERCHANT.—In West Newton, Massachusetts, on Tuesday, October 18th, Dr. Luther G. Paul and Miss Agnes S. Merchant.

PERLEY—JENKS.—In Detroit, Michigan, on Wednesday, October 5th, Dr. Harris O. Perley, United States Army, and Miss Martha R. Jenks.

TAYLOR—MANLEY.—In West Chester, Pennsylvania, on Friday, October 14th, Dr. Horace Furness Taylor and Miss Katharine Grace Manley.

VINCENT—GRESHAM.—In New York, on Wednesday, October 12th, Dr. Wesley G. Vincent and Miss Ethel B. Gresham.

WELLS—FINK.—In Baltimore, Maryland, on Wednesday, October 19th, Dr. C. Milton Wells and Miss Rosa Fink.

Died.

COOK.—In West Point, Georgia, on Tuesday, October 11th, Dr. B. C. Cook.

DIXON.—In Bedford, Indiana, on Saturday, October 15th, Dr. H. C. Dixon.

DRANE.—In McCool, Mississippi, on Thursday, October 13th, Dr. J. D. Drane.

FLOWERS.—In Cambridge, Massachusetts, on Thursday, October 20th, Dr. William C. Flowers, in the eightieth year of his age.

GREENOUGH.—In Brookline, Massachusetts, on Sunday, October 16th, Dr. Frank Greenough, in the sixty-eighth year of his age.

HOWES.—In Detroit, Michigan, on Tuesday, October 11th, Dr. Alice Howes.

HUGG.—In Camden, Pennsylvania, on Saturday, October 15th, Dr. Isaac N. Hugg, in the sixty-fifth year of his age.

LORD.—In North Haven, Connecticut, on Tuesday, October 11th, Dr. Austin Lord, in the eighty-fourth year of his age.

LOWELL.—In South Portland, Maine, on Saturday, October 8th, Dr. James W. Lowell, in the sixty-third year of his age.

MOREY.—In New Orleans, Louisiana, on Tuesday, October 11th, Dr. C. B. Morey, of Winona, Minnesota.

MULLER.—In Philadelphia, Pennsylvania, on Thursday, October 20th, Dr. Auguste Frederic Muller, in the sixty-fifth year of his age.

PREWITT.—In St. Louis, Missouri, on Monday, October 17th, Dr. Theodore F. Prewitt, in the seventy-third year of his age.

PURVIANCE.—In Philadelphia, Pennsylvania, on Thursday, October 20th, Dr. George Purviance, Assistant Surgeon-General in the Public Health and Marine Hospital Service, in the sixty-fourth year of his age.

REILY.—In Washington, D. C., on Wednesday, October 12th, Dr. James R. Reily.

SEYMOUR.—In Troy, N. Y., on Tuesday, October 18th, Dr. William W. Seymour.

WENTZ.—In Baltimore, Maryland, on Wednesday, October 19th, Dr. George Wentz, in the sixty-ninth year of his age.

WILCOX.—In St. Louis, Missouri, on Friday, October 14th, Dr. J. Murray Wilcox, in the thirty-third year of his age.

WILLEY.—In Lynn, Massachusetts, on Wednesday, October 12th, Dr. Clarendon W. Willey, in the thirty-fifth year of his age.

WRIGHT.—In Leguin, Georgia, on Sunday, October 16th, Dr. Franklin D. Wright, in the sixtieth year of his age.

New York Medical Journal
AND
Philadelphia Medical Journal.

A Weekly Review of Medicine

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Lectures and Addresses

WOMAN'S DUTY TOWARD THE HEALTH OF THE NATION.*

By S. A. KNOPF, M. D.,

NEW YORK.

The American woman should find her highest and noblest mission in helping to increase the nation's health. Her first duty is to familiarize herself with the status of the health of the nation of which she is an integral member. She will learn that thousands of useful citizens, of men, women, and children, die annually from preventable diseases, such as tuberculosis, diphtheria, smallpox, alcoholism, etc., that in the State of Massachusetts alone 4,531 died of tuberculosis last year, and that of the 80,000,000 now peopling the United States nearly 10,000,000 will die of this disease if the present ratio is kept up.

With the increase of the health of the nation there will be invariably a concomitant betterment of the physical condition of men and women in general, an increase in moral, intellectual, and monetary wealth.

Women in nearly all phases of life can aid in this labor toward the improvement of the nation's health—one more, another less, but all can help. Individually they can help by furthering their own health by healthful dress, healthful food, and a simple life. Garments constricting chest and abdomen, hindering the body's physiological functions, must be done away with. Of tight shoes and neckwear the same must be said, for by their constricting influence they hinder the free circulation of the blood. Mothers should, if at all possible, nurse their children themselves, and artificial feeding during the first year should only be resorted to in the rarest instances. To learn to select and to cook good, healthful food every wife and mother should consider one of her most graceful accomplishments.

To live a simple life does not mean to abandon the comforts of modern civilization, to ignore the blessings of modern science, and particularly of modern medicine. It only means to live less artificially, more in accordance with physiological, i. e., natural laws, and obey the lessons modern science and preventive medicine have taught us. Thus, instead of giving her adherence to all sorts of fads, some of them denying the existence of disease and proclaiming the uselessness of preventive medicine, hygiene, and the laws of cleanliness, which are the laws of God, the American mother should combat such dangerous doctrines by word of mouth or pen, and above all by example. By leading a simpler life she will no longer be "nervous," or neurasthenic, and consequently will not have to resort to the patent remedies, headache powders, and nerve tonics advertised in the daily and not infrequently in even religious papers. These remedies are often thoughtlessly recommended by clergymen and statesmen who are totally unaware of the often dangerous ingredients of such remedies.

Smallpox, diphtheria, and tuberculosis, all eminently infectious diseases, are treated by so called Christian Scientists as delusions, and no precautions are taken to protect others, not even the innocent children. Instead of joining antivaccination leagues, the American woman should plead for universal vaccination laws. This in view of the fact that in European countries and in States of the Union where vaccination is compulsory smallpox has almost disappeared, whereas it continues to exist epidemically and occasionally ravages whole districts where universal vaccination is not practised, that is to say, where it is restricted to those who voluntarily submit themselves to the trifling and harmless operation.

Some well meaning but misguided persons protest against the use of antitoxine in diphtheria because they suppose that its production causes pain to the animal which is used for that purpose, or they go still further, protesting because in experimenting with antitoxine hundreds of innocent little rabbits and guinea pigs have been "tortured." These people call themselves antivivisectionists. Leaving aside that scientific experimenters never purposely torture animals, that the horses from which antitoxine is produced do not suffer, let these good people remember that it is to the experiments on a few hundred guinea pigs and rabbits that the discovery of antitoxine is due, and that in consequence the mortality from diphtheria has been reduced from seventy or seventy-five per cent. to five or six per cent. This means that ninety-four to ninety-five American children are saved out of every one hundred, instead of twenty-five or thirty. Let every American mother remember these facts when she is asked to aid so misguided a mission as one protesting against scientific and humane vivisection.

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* Synopsis of an address delivered by invitation before a meeting of the Massachusetts State Federation of Women's Clubs, at Lowell, Mass., October 27, 1904.

Tuberculosis, the great white plague, which was formerly regarded as a hopelessly incurable disease, has, thanks to the work of modern scientific medicine, become the most preventable and curable of all infectious chronic diseases. Here, perhaps more than in any other disease, can the American women be helpful. Let her join every movement which has for its purpose to prevent promiscuous spitting (the main source of the spread of tuberculosis) indoors, in public conveyances, or even on sidewalks. Let her protest against trailing dresses on the sidwalk by example and word, by mouth or pen. Trailing skirts are filth and disease collectors, they do the scavenger's dirty work and transport not infrequently disease-producing dirt into the homes of their wearers.

Let the American woman join local antituberculosis associations or form such if they do not yet exist in her community. These associations are for the purpose of spreading the knowledge of how to prevent and cure tuberculosis, of looking after the consumptive poor, and inducing noble-minded and generous people to help to provide medical aid, and whenever possible, sanatorium treatment for pulmonary invalids. It is there that the poor consumptive has the best possible care and that he has often as much as seventy-five to eighty per cent. of chance of absolute and lasting cure.

Another duty of antituberculosis associations is to visit consumptives at their homes and to strive to improve the hygienic condition there, and, while everywhere preaching the need of precaution against the careless deposit of sputum, every member can teach the unduly alarmed people that the careful consumptive is as safe an individual to associate with as any one else, and that phthisiophobia (exaggerated fear of the presence of the consumptive) is cruel and inhumane.

Many women have chosen as a profession that sublime calling of teacher of children. By working hand in hand with the school physician and superintendent, the public school teacher can do more than any one else in the prevention of the spread of many of the contagious children's diseases. School boards, superintendents, and teachers can, by arranging a judicious curriculum, prevent the overtaxing of the child's brain and nervous system to the detriment of its physical development. By studying, practising, and teaching the fundamental rules of the prevention of tuberculosis, such as cleanliness, free ventilation, and love for fresh air and sunlight, and good and healthful food, the public teacher can do more toward the combat of tuberculosis as a disease of the masses than perhaps any other individual.

Alcoholism, the curse of our nation, often the forerunner of tuberculosis and other infectious diseases, more frequently of crime, poverty, and insanity, is a disease well worth while for the woman to study and combat. It must be evident that alcoholism, treated as a disease and not as a crime, cannot be combated by fanatical laws or prosecution, yet women can and should do much toward the possible eradication of this disease of diseases.

Here again she must begin with herself, her own home, her own children, her own husband, her own friends. If she herself is addicted, let her strive to master it; if she does not succeed by will power, let her not have recourse to advertised and mysterious "sure cure" medicines, but consult a competent physician. For let it be known that many of the so called "antialcoholic remedies" have a very large percentage of alcohol, and often morphine or cocaine; this also holds good of many of the so called nerve and stomach remedies. The long continued use of certain patent medicines which are advertised as nonalcoholic has not infrequently made an habitual drunkard or a person addicted to morphine.

The use of any patent medicine the constituents of which are unknown must always be dangerous, and American women have here a field for reform. Millions of dollars are spent annually for patent medicines, nostrums, and quack remedies, often uselessly, more often producing incalculable and irreparable harm.

Parents should know that unless they master a desire for alcohol they may transmit this morbid longing to their children. Let them be on guard to protect their sons and daughters from such a fate. Let the mother begin with this early. No soothing syrup with unknown ingredients should be used for her babies, no alcohol ever introduced in her household. She should warn her children, as soon as their intelligence permits, of the danger they are exposed to. Let her impress upon her boy that he can be a man, and a true gentleman, though he forever refuses to go into a saloon to be "treated" or to "treat," for alas! it is the "treating" habit among the male population of our country which has made of many a hopeful young man a miserable drunkard.

What shall the woman do, poor or rich, whose husband is inclined to the excessive use of alcohol? Let her make her home as attractive as possible, her meals as appetizing as the best cooking can possibly make them; if he desires a glass of wine or of beer with his meals, let her keep these articles at her home. Alcohol diluted in the form of beer or wine, taken in moderate quantities with meals, is not injurious.

Let the American woman support all movements which tend to improve the moral, physical, and intellectual standard of the nation. Let her, with all her might, combat child labor which still disgraces many of our States. Massachusetts, which was for many years the leading State in the Union in the care of its children, has recently lost that proud preeminence. Colorado, Illinois, and New York have now better laws concerning child labor. Let the women join rational movements which tend to combat intemperance and excesses of all kinds.

Let the woman of culture and refinement teach her less fortunate sister the art of cooking and housekeeping, so that the home of the ordinary laborer, too, may be made more attractive, and the saloon will cease to be a temptation to him. Let the woman of wealth and influence help to create better and healthier tenements for the poor, more parks and playgrounds for the children, healthful places of amusement for old and young, where the honest laboring man may take his wife and children on a Sunday afternoon and partake of nonalcoholic or only lightly alcoholic drinks with his repast. Thus the saloon and intemperance will lose their charm, and alcoholism and its fearful consequences will gradually disappear.

Broader education, heroic examples, self-sacrifice, much work, and a great deal of devotion are necessary to the American woman if she wishes to do her whole duty toward the health of the nation.

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A Scheme to Induce General Vaccination.—In Public Health Reports, September 30, 1904, published by the United States Public Health and Marine Hospital Service, is a full account of a scheme for the encouragement of inoculation for the restriction of the plague in Bombay, India, set forth in a letter signed by the chairman and secretary of the Bombay Chamber of Commerce. Modified to fit the conditions relative to vaccination for the prevention of smallpox, it would be somewhat as follows: the principle is that a reward be given to each person vaccinated who induces four other persons to be vaccinated. For a very small sum four coupons are issued to each person vaccinated; as soon as four other persons are vaccinated who present these four coupons, a reward is paid to the person who originally purchased the coupons. The reward paid is perhaps four times as much as was first received for the coupons. Each of the four persons vaccinated receives a set of four coupons, and the process thus continues in a geometrical ratio to widen its sphere of influence.

THE OUTLOOK IN THIS COUNTRY FROM THE MEDICAL POINT OF VIEW.*

By ANDREW F. CURRIER, M. D.,

NEW YORK.

To forecast the future from almost any standpoint is not an easy matter, for the gift of prophecy is rarely bestowed nowadays. And yet this is one of the attributes which is supposed to belong to the physician's armamentarium.

He is taught from the beginning of his medical education the use of terms which imply this foreknowledge—*prognosis,* the anticipation of the issue of disease; *prophylaxis,* the precautions which will ward off disease, and others which are less distinctively medical terms.

He is constantly being asked, in the management of disease, as to the percentages for and against the recovery of the patient. Especially, if an operation of gravity has been performed, is the question of percentage invoked, and the busy newspaper reporters quote *this* percentage to-day, and *that* to-morrow, as if the variations of disease were a matter of mathematical calculation, or of fluctuation like the tides or the stock market. This reminds us that the tendencies of our complex modern life are all toward publicity. The physician is asked to give to the newspapers all that he knows about a given disease and possibly what he does not yet know with certainty, and woe to him if he withholds aught upon which the public desires enlightenment. Woe to him, likewise, if he incautiously makes statements which subsequently show that, like most human beings, he is susceptible to error.

In former times the physician, with probably as great interest in the welfare of his patients as the physician of to-day, was rarely compelled to go into the pathology of his cases and the details of his treatment for the benefit of the public at large. Nowadays, such facts are frequently submitted to the fierce glare of public criticism through the public press, especially if the patient is a person of prominence in the community. It is true there was much of pretense and sham in many of the members of the medical profession in the centuries of the past. The light was dim and unsteady; but was not that the case with other professions and sciences as well? The amount of knowledge actually possessed was often disproportionate to the amount assumed, and the discrepancy was so great that keen witted writers took advantage of the fact to bring the whole profession into disrepute. Several of the plays of Molière are merciless satires upon the physicians of his time, but they are more amusing to us than they were to the courtiers of Louis XIV, for whom they were written, for, with the more substantial acquirements of the intelligent doctor of to-day he is better able to distinguish the ring of base metal in his predecessors than were those who were simply amused by the poet's witticisms.

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* Valedictory address of the retiring president of the Jenkins Medical Society.

While the average physician is better informed, the general public also thinks itself capable of acquiring from cursory reading that which has demanded from him years of more or less careful study and practical experience. A recent editorial in one of our great daily newspapers thus exemplifies this statement in reference to an Illinois physician who seemed to be courting notoriety in the newspapers. "There are, however, proper as well as improper uses of publicity even for a doctor, and even in medical matters there are not a few lay papers that compare with the medical press about as the ordinary physician compares with the specialist. The trouble with the doctors is that they are always regretting the days when they were a sort of priesthood and their art was a mystery understood only by themselves and by themselves none too well. There is no mystery about it now, and the pretence that a layman necesssarily is incompetent to criticize the language or the acts of the doctors is the wildest nonsense."

The greater degree of curiosity and intelligence on the part of the public in matters medical is not wholly without its advantages, for it tends to make the medical man more cautious in word and action and probably fixes a higher standard of professional conduct than would obtain without this perpetual censorship. Increased knowledge in medical art and science has led to specialization, as might be expected, and the subdivision has been so great that it is often bewildering and confusing to the lay mind. Specialism tends to make men narrow, and specialists, of all men, ought to be broad. But reaction follows action and the pendulum which swings far in one direction is bound to go equally far in the other. Excessive and exclusive specialism will be no exception to this rule.

Twenty-five years ago there were but few specialists in any line of work and these were, of necessity, concentrated in a few large cities. Their work was of varying quality, but there was a great deal of it. Many a woman had her ovaries removed, many a man had his meatus urethræ slit open; many men, women, and children, of all ages and conditions, had their noses bored, or gouged, or chiseled, without adequate cause or justification, and became no better as a result, but rather grew worse, like the woman in the Scriptures who had spent her all upon physicians.

This was the era of private surgical sanitaria, and the more distinguished and skilful specialists found difficulty in providing accommodations for the multitudes who flocked to them from all parts of the country. The commercial element in medicine and surgery was emphasized and it is not native or becoming to it, at least to the same degree that pertains to most other occupations and professions. Most of these sanitaria were short lived and, with few exceptions, they no longer exist in this portion of the country where they originated.

Many doctors came from all parts of the country to our Eastern cities, where the specialists were concentrated, to learn their secrets and then to go home and open similar sanitaria or else to perform their operations in their local hospitals, and so it came about that the outflowing current of the diseased and afflicted away from their homes was arrested. This was also the beginning of the era of definite postgraduate instruction, and many private institutions of this character were started. The work which has been done by them has in some cases been good and in others bad and superficial. A bright and accomplished physician or surgeon may gain much by a few weeks' attendance at such an institution, for he is without responsibility, he absorbs much new knowledge, and he refreshes and revives that which is dim from disuse. Not so with the superficial man who fails to get at the root of things. He acquires a few facts and, if he is bold, rash, and self-confident, he returns to his home to inflict much harm upon those who may fall into his hands.

The principle of postgraduate instruction is certainly a correct and valuable one, but the best place for such instruction is the medical department of a university, with the advantages and restriction which inhere to such an institution of learning. The institutions of the existing type have been of service in awakening university authorities to the necessity and advantages of postgraduate departments.

The corps of specialists has been well distributed over this entire country, but the supply of material for their occupation has in many cases given out, and it is not renewed with the rapidity of a generation ago, and, besides, there are so many more among whom it is to be divided that the layer of distribution is necessarily a thin one.

To speak of but one specialty; how many gynæcologists now have the opportunity to operate upon any considerable number of ovarian tumors, or vesicovaginal fistulæ, or cancer of the uterus, or even lacerations of the cervix and perinæum?

The general surgeon and the general practitioner do all these operations and, perhaps, with as great frequency as the gynæcologist. Furthermore, the passion for surgical work and for the life of a sanitarium does not possess the minds of the people as it did a few years ago. It was then no uncommon thing for people, especially women, to spend months or years in a sanitarium with its constant experience of self-examination, magnification of symptoms, and loss of the power of self-control. I believe, therefore, that the day of the exclusive specialist, at least in some of the special lines of work, is over.

There will always be a few who will limit themselves to certain lines of work, at least for a time, and there are certain specialties which may be permanent, but I doubt whether there will continue to be a large number who will thus limit themselves.

The profession of medicine now requires a very long preparation. At the best schools there must now be four years of study, together with a considerable amount of clinical work. If two years of hospital work are added and the professional studies are not begun until the twentieth or twenty-first year, and we also add several years of waiting before one is sufficiently established to support himself and a family, the prospect is certainly uninviting to any but a very courageous man.

The medical profession is overcrowded; the yearly rate of additions is far greater than is required by the increase of population. It was estimated at the meeting of the American Medical Association in 1903 that 2,500 accessions to the ranks of the profession were required annually, while the annual output from the medical colleges is 10,000.

A large portion of the increase in our population is by immigration and remains in the large cities where, under normal conditions, the demand for labor is in greatest variety and abundance. Many of the sick and injured among these people are cared for by our superabundant hospitals and dispensaries, even when the demand for labor is large and money relatively plenty. To how much greater extent is this true in time of strikes and inability to work from other causes!

The proportion of the new graduates, which remain in the cities where the colleges and hospitals are located, is relatively large. Some of them enjoy the advantages and emoluments which accompany such residence, but this number is small in comparison with the total of accessions. One who begins practice in a large city, without influential friends and without capital, is usually a very unhappy man, and no doubt very often wishes he had tried almost any other method of getting a living.

But suppose the physician in city or country has survived the hard years of waiting and has succeeded in building up a clientèle which keeps him more or less occupied; his troubles are by no means over. His cases may be interesting, but they may also be the source of great anxiety, and, if they do badly in spite of all that he or any one else could do, he is very apt to blame himself for his lack of judgment or wisdom, or, if he does not, his patients and their friends do it for him, and he is very often the victim of the greatest injustice and harshness of opinion. If he is obliged to gain his living from his work how trying are the experiences through which he must pass! He treats many of his patients without hope or expectation of any pecuniary reward, and most physicians rejoice in the privilege of thus serving their poor and needy fellow beings. Of the remainder, some pay their bills honorably and cheerfully and apparently have a sense of gratitude for the services rendered them. These are a comfort and a delight to the physician's heart and give him courage in the midst of his trials and worriments. There are others, however, and most physicians meet them sooner or later, who do not pay their bills until forced to do so, who grumble at the service which has been rendered them or the charge which has been made, who insist on deductions from their bill, no matter how reasonable the charge may have been, and who are a constant source of humiliation to the doctor in their lack of appreciation of his labors, and in forcing him to beg from them what belongs to him as the equivalent for his work. I am well aware that such people as I have described are intrinsically mean and are mean to everybody, but their meanness to the doctor becomes a shade darker from the obligations which he has imposed upon them. It counts for little to them that he may have averted the shadow of death from them or from some member of their families, or that he may have been the means of bringing back health and vigor, or that if he could not keep back death, he at least was faithful in his attention until he was overpowered by the enemy which, sooner or later, overcomes us all.

Hardest of all, perhaps, is the experience which is becoming more and more common, in which not only is payment for services refused, but suit for malpractice instituted with all its care, worry. and expense. To be sure, the charge of malpractice is seldom sustained and the heavy damages asked for are seldom awarded, but who can measure the anxiety and the distress which accompany such provoking procedures and sap the life and strength of the one who is attacked?

I doubt not that the foregoing remarks will win for me the reputation of pessimist, but I believe I have stated only facts, and facts are stubborn things, even though they lead to such a reputation. If these are the facts, is there a remedy for them? Let us take them up seriatim.

The publicity in the practice of medicine we cannot escape. We cannot remain in the city and go back to the methods of the cloister. As long as we remain in the atmosphere of the daily newspaper we must bow to the insatiate desire of the public, at least to a certain limit, for news. The shrewdest and most crafty politicians seldom refuse to give information to the interviewer, for they know that if they do refuse they will be misrepresented and vilified. If we have information which it is proper to give, it will usually be wise to give it when asked for, to a properly accredited representative of the press, and hold his employers responsible for its correct reproduction. The remedy for excessive specialism is already here. It consists in the acquirement by the physician of those accomplishments which he has heretofore yielded to the specialist, and in the reestablishment of the family physician as the guide, counselor, and friend of the family.

The pathologist, the chemist, and the bacteriologist will always, at least in the large cities where they are usually located, have abundant scope for their labor in their particular fields, and a few of the other specialties will doubtless remain distinct. The others will, within a few years, be merged in the field of the physician and surgeon. The remedy for the overcrowding of the profession is debatable. It is probable that the limit has been reached in the way of educational requirements for entrance to the profession. A man who cannot acquire the rudiments of medicine, and something of the clinical portion as well, in four years of study had better try some other form of mental effort which his intellect can grasp and assimilate.

You cannot prevent men under present conditions from devoting themselves to this work if they wish to do so; but what a comment it is upon the meagre returns for medical work when thirty-five doctors can be found in a single district of moderate area, though of dense population, in New York city, who are so reduced, either morally or financially, as to be guilty of selling the antitoxine which the city gave them to supply to the deserving poor suffering from diphtheria! Even more remarkable was the statement, in one of the very recent daily papers, that numerous doctors were accused by the New York Board of Health of selling vaccination certificates at ten cents each, encouraging ignorant people, for a mere pittance, to evade a sanitary requirement, though this requirement would cost them nothing. (*New York Times*, May 6, 1904.)

It has sometimes seemed to me that, if a law was made in the several States limiting the number of possible graduates from the medical schools in those States in accordance with the number of physicians already registered, and in accordance wtih the population as determined by the census, the superabundant manufacture of doctors might be stopped. I believe a somewhat similar plan was adopted in Germany a few years ago. If, also, a bureau of information was established, which would tabulate those portions of the country where doctors were present in insufficient numbers and would direct to such places those who wished to change their location because of unsatisfactory conditions, it would be the means of accomplishing much good. It would draw away from the cities many who are unfitted for city practice and who, amid the invigorating surroundings of rural life, would stand a much better chance of getting a living and of developing in body and mind. Such a bureau would also be a valuable aid to those who might wish to migrate to our possessions in the tropics and in the north. We are now a great colonizing nation. The development of the Philippines, the Sandwich Islands, Puerto Rico, Panama, and Alaska in the next generation will probably be greater than figured in our wildest dreams. With the increase of population, and the introduction of the complex conditions of our civilization, will come a natural demand for a great number of trained physicians and surgeons, and the opportunities for obtaining the material things of life will probably be much greater than here.

Another outlet for a large number of physicians is in the missionary field. The success which has attended the work of many of the missionary physicians is simply marvelous; witness the names of Livingstone, Parker, Post, Allen, and many others. The opportunities for doing good upon a very large scale are far greater than could possibly come to the average physician at home. There is room for many thousands of physicians in this field, and they would not only be reasonably sure of a fair living, but of magnificent opportunities of usefulness.

The remedy for the difficulties which beset the physician from the financial standpoint is difficult to prescribe. Doctors are often accused of being poor business men, but is there a class of laborers who are more imposed upon from the business point of view? They are blamed and slandered, either because they make too many visits or too few, because they are in a hurry to get their bills paid, or because they are slow in sending their bills, because they neglect their cases, or give them more attention than is necessary, because their charges are too high, and because the number of visits made does not correspond with the record kept by the patient. Many times it is insisted that a percentage be taken from the bill, often payment is refused altogether, and, not infrequently, the doctor is informed that if he brings suit for his money a counter charge of malpractice will be preferred and a large amount claimed in damages. This latter occurrence is especially frequent when the results are bad, or the patient dies, as patients sometimes will.

Doctors are largely to blame because of the humiliating treatment which they receive at the hands of the public. They seldom assert their rights in the face of abuse and slander, and they yield to importunities to reduce their bills only to be compelled to do it ever afterward, and in increasing amounts. As a matter of expediency this may be necessary in rare cases, but the principle is a bad one, for one should not demand, in the first place, more than the services are believed to be worth. The remedy and relief will come only when we have a more efficient organization than at present.

The county society should be the medium for righting the wrongs of the physician. It should be the repository of the catalogue of dead beats and malingerers in its jurisdiction. It should defend its members in malpractice suits, and it should at all times encourage harmony and solidarity among them. The trades unions have shown us what can be accomplished by combination. Shorn of their evil tendencies and of their mischievous leaders, what would they not accomplish for the workingman? We cannot subscribe to their dictum "the injury of one is the affair of all," but if we had something more of this spirit than we now have, we should be subject to fewer impositions from the public.

A word as to the outlook from the therapeutic standpoint. I believe the days of excessive drugging are over. Homœopathy has mitigated the horrible dosage of the past and has demonstrated what may be accomplished with infinitesimal doses of innocent and sometimes inert substances, if combined with the proper degree of mental influence. The pathology of infectious disease seems at length to be upon a firm foundation. What is more rational than to treat a known and demonstrable poison in the body by means of its definite and demonstrable antidote? It seems to me that the treatment by means of serums and extracts is to form a most important feature in the therapeutics of the future. I believe also that through the influence of a strong mind upon a weaker one will come much of the curative action of the future, especially in those diseases in which the functions of the mind and the nervous system are greatly, perhaps chiefly, concerned. It matters little what name we give to this influence, Christian Science, hypnotism, suggestion, mesmerism, one name will serve as well as another, if only the element of imposture and humbug is eliminated.

It has also seemed to me that we have much to expect from the influence of the physical forces in nature, heat, light, and electricity. We are but at the threshold of the application of these potent forces for therapeutic influence. How can it be otherwise? When we see the tremendous effects which are produced by these agencies when applied to economic purposes, when we see their destructive effects when misapplied to the human body, how can we doubt that, when they are more thoroughly understood in their relations to the different modes of the body and its functions they will produce changes of which we now have but little conception?

With these agents, as it appears to me, will rest the solution of the problem of malignant disease. We have failed to solve the problem with drugs; we have failed with the knife and cautery; we must try something else.

The influence of diet, hygiene, and water will also be more effective for therapeutic purposes in the future than now, because we shall use them with greater intelligence, and with clearer foresight as to what they will accomplish. But there will be much struggle, and disappointment, and failure, just as there have been in the past, before we can hope to attain the glorious results for which we are striving.

Do you remember the terrible storm which overtook the fleet in Apia harbor some twenty years ago? The *Trenton* and the *Vandalia* dragged their anchors and were blown upon the reef. The English *Calliope,* with full head of steam, was pointed for the open sea. Harder the engines worked and faster the propeller "churned the yeasty foam." She gains an inch, a foot, a yard! Cheers from the sailors of the doomed *Trenton,* while from the band peal the strains of The Star Spangled Banner. Onward creeps the *Calliope,* inch by inch, foot by foot, and now she has crossed the bar, she is out in the open sea, and she has accomplished that for which she struggled and toiled so painfully!

Such is human endeavor in its struggle with the adverse forces of nature, and, if we are to conquer, we must ever say with that true prophet Browning:

> Then welcome each rebuff,
> That turns earth's smoothness rough,
> Each sting that bids, nor sit, nor stand, but go,
> Be our joys three parts pain,
> Strive and hold cheap the strain,
> Learn, nor account the pang,
> Dare, never grudge the throe.

◆

The Following Nurses, of the Brooklyn Hospital Training School, graduated on October 12th: Estella Ethel Rees, Henrietta McElroy, Marie Hamilton Slate, Alma Z. Kavanagh, Cora Minnetta Bates, Nina Kinler, Edith Irene Coppinger. Ada Lyle Givin, Hilda Mary Harding, Jane Green, Alberta Eugenia Capon, Margaret Mary Love. Postgraduates, Sara Bevans, Tulla Place, Eliza Horn, Josephine Drew, Fannie Dennis.

Original Communications.

A CLINICAL AND STATISTICAL STUDY OF CONVERGENT STRABISMUS.*

By WENDELL REBER, M. D.,

PHILADELPHIA.

So much of a statistical nature has been written on the subject of strabismus that it seems gratuitous to simply add to the figures already submitted. But there is a phase of the subject that hitherto, if touched on at all, has been so very lightly. I allude to the fact that it is to-day pretty generally admitted by psychologists and scientific ophthalmologists that the act of binocular vision is thoroughly completed at or soon after the sixth year; to be safe, we will say the seventh year. Admitting the supposition, it would seem worth while to contrast the results of treatment applied to strabismus presenting for treatment before the seventh year and the results of treatment in those offering themselves later. And this is the only reason offered for presenting the following study.

The material for these tables was taken partly from my own private records, partly from the records of the Polyclinic Hospital, for which I am indebted to my former chief, Dr. Howard F. Hansell; and partly from the records of the German Hospital, ophthalmic outpatient department, for which I am indebted to Dr. William T. Shoemaker, my colleague in that service.

In all, 450 records were searched. Of the hospital records, but 130 furnished sufficient data to justify using them in the subjoined tables; so that the study embraces 166 cases, divided as follows:

TABLE I.

Private	36 cases.
Hospital	130 cases.

The facts sought in each case appear in the following blank form:

TABLE II.

Age...... Sex...... S. M. W. Age first noticed............
Determining influence..
Family history...
Degree of squint.............. Age first treated............
Vision, R.... L.............. Corrected, R.... L.........
Unilateral .... Alternating ....
Constant .... Periodic ....
Correction, R.... L..
Result of optical treatment:
    After three months.......................................
    After six months...
    After one year...
    After three years..
Tenotomy ....
Advancement ....
Remarks ....

Naturally many of the cases were lacking in some of three important points, and only the closest following of many of them (personally and by mail) brought them up to the point where they were statistically of use. A circular letter, with a blank form to be filled out by the parents, although mailed to 390 people, brought but 10 replies.

Taking each series of facts, as it appears on the preceding blank form, we firm that 63 cases were presented for treatment before the seventh year, of which number 18 were private and 45 hospital cases; 103 first applied for treatment after the seventh year; 18 being private, and 85 hospital cases. In the matter of

Sex.—There was relatively little difference in the frequency among males and females until we come to the hospital adults, where the proportion of females to males is almost 3 to 1. This is probably due to the lack of æsthetic development among males in the lower walks of life. As to the

TABLE III.

	Males.	Females.
Private, under 7	10	8
Private, over 7	8	10
Hospital, under 7	24	21
Hospital, over 7	25	60

Age of Onset.—It is shown that the average of onset:

TABLE IV.

In 63 hospital cases over 7 years	was 3½ years.
In 39 hospital cases under 7 years	was 3 years.
In 18 private cases over 7 years	was 2$^{5}/_{9}$ years.
In 18 private cases under 7 years	was 2½ years.

This discrepancy of one year in the age of onset among the first class of hospital patients, and the second class of private patients, is to my mind only apparently so. If hospital histories could be made as accurate as private histories, I believe the average age of onset would be the same in clinical as in private patients. In connection with this feature of the study, the claim of some observers that the age of onset is largely determined by the degree of refractive error, is not substantiated. For instance, the average age of onset in errors under 2 dioptres was 2.76 years, while the average of onset in errors over 4 dioptres was not earlier, but later, i. e., 3.04 years. These figures, I am glad to note, follow very closely those of Mr. C. Worth, namely, 2.47 for the first class; (2 D.); 2.85 for the second class (2 to 4 D.), and 2.92 for the third class. Hence we are justified in the statement that a high error has no special influence in provoking an early age of onset.

TABLE V.

Age of onset and degree of error.

Under 2 dioptres	2.76 years.
2 to 4 dioptres	3.24 years.
Over 4 dioptres	3.04 years.

Determining Influence.—Some of the answers to this question simply passed belief. Out of many uncertain ones, 40 were secured that seemed possibly to have some relation to the strabismus. They are here put down for what they may be worth:

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* Presented to the Medical Society of the State of Pennsylvania.

TABLE VI.

Determining Influence.

Diphtheria	4
Whooping cough	10
Fright	3
Fall	5
Convulsions	3
La grippe	2
Scarlatina	3
Measles	6
Anæsthetic	1
Worms	2
Chorea	1

The question of determining influence will always be open to more or less speculation, although I am constrained to say that whooping cough has often seemed to me to have some influence in the production of convergent strabismus.

Just how great a part heredity plays in the developments of esotropia will probably never be accurately known. Parents are not prone to tell all they know about family defects, especially those of clinical patients, and viewing strabismus as a blot on the 'scutcheon (as many of them do) they vehemently assure us that no one else in the family ever had "cross eye." In private practice, the facts come out sooner or later. Worth, in 1,373 cases, found some hereditary predisposition in 52 per cent., while Holthouse, in 144 cases, puts it as 46 per cent., and suggests that when heredity is operative the deviation is likely to appear at an earlier age than it otherwise might. My own series shows 33 per cent. fixed and 10 per cent. doubtful, making a possible 43 per cent., which is not far from the figures of either of the two workers just quoted.

Degree of Deviation.—The average degree of deviation in 78 cases, in which it was carefully estimated, was as follows:

TABLE VII.

Average degree of deviation.

18 private patients under 7 years	28.33°
18 private patients over 7 years	29.16°
24 hospital patients under 7 years	29.10°
18 hospital patients over 7 years	31.00°

It is a natural supposition that the higher the refractive error, the higher the resulting strabismus, but this supposition is not borne out. It is quite common to find a high deviation with a low refractive error. Ten cases taken at random from my own series, all with a refractive error of 2 dioptres or less, show an average deviation of 32°, while ten other cases of 4 dioptres and greater error, taken at random from the series, show an average deviation of but 29°. Other causes must, therefore, be at work. This brings us to the consideration of

Amblyopia.—Any one who has gone much into the literature of strabismus must have felt something little short of despair at the woful laxity in the use of the term amyblyopia. It has been held to mean anything from mere light perception to one half and by a few even two thirds of normal vision. And to make "confusion worse confounded," some have gone so far as to use the terms amblyopia and amaurosis interchangeably. Surely the time has come when something definite should be agreed upon. Koller, *Annals of Ophthal.,* Vol. V, shows that in order to secure vision enough to read ordinary type, the visual fraction should be at least ¼. If an eye has reading vision, it is altogether likely to take part in all work done at the reading distance, and any eye that can show this much efficiency ought not to be put down as amblyopic. Holthouse, *Convergent Strabismus,* London, 1897, defines the amblyopia of strabismus as "that defect of vision in the deviating eye, which remains after full correction of the refractive defect." However, while amblyopia will always be a more or less relative term, it would seem well on the basis of Koller's demonstration to define the amblyopia of strabisums as a visual fraction of less than ¼, even with the best mydriatic correction. It is in this sense that the term will be used throughout this study.

With this as a standard, there were in the 166 cases, 39 amblyopic eyes, arranged as follows:

TABLE VIII.

Amblyopia = less than ¼ corrected vision.

Private cases under 7 years of age	5½ per cent.
Hospital cases under 7 years of age	16 per cent.
Private cases over 7 years of age	27 per cent.
Hospital cases over 7 years of age	30 per cent.

In other words, but one private case under seven years of age showed true amblyopia (five and one half per cent.); among the hospital cases under seven years of age sixteen per cent. showed amblyopia in one eye; among the private patients over seven years of age, the percentage rises to twenty-seven per cent., while among the hospital adults the percentage of amblyopia is highest, thirty per cent., as would be expected. Grouping all the cases under seven years of age together, and all those over seven years of age together, it was found that under seven years of age, but ten per cent. showed amblyopia, while over seven years of age twenty-seven and one half per cent. were defective in one eye. The need of optical correction, and treatment of the strabismus before the seventh year, if for no other purpose than to forestall amblyopia in the deviating eye, could not be more forcibly shown. As to the number of so called amblyopic eyes that may be improved by correction, Lang and Barrett (*Royal London Ophthal. Hosp. Reports,* Vol. XII) report forty-seven and one half per cent. of such cases as bettered with glasses. Worth's cases showed improvement in fifty-one per cent. In my own series, improvements in vision of the deviating eye, under correcting glasses, occurred in sixty-six and two thirds per cent. of the cases, ranging from a twenty per cent. betterment to a ninefold increase in vision.

TABLE IX,

Showing Improvement Obtained in Amblyopic Eyes.

Increase in vision.	Number of cases.	Increase in vision.	Number of cases.
10 per cent.	..	N 4 per cent.	2
20 per cent.	1	5 per cent.	..
30 per cent.	3	6 per cent.	3
M 40 per cent.	..	7 per cent.	..
50 per cent.	2	8 per cent.	2
75 per cent.	1	9 per cent.	..
2 fold.	7	10 per cent.	..
3 per cent.	3	No improvement.	13

It seems, then, that from two fifths to three fifths of amblyopic, strabismic eyes appear to be capable of improvement by the wearing of proper glasses, a fact of vital importance.

The commonly accepted idea that the total refraction of the amblyopic or deviating eye is genrally greater than that of the fixing eye, is not borne out by the figures of these tables.

In the 39 amblyopes mentioned,

TABLE X.

The refraction of the amblyopic eye was greater than that of the fixing eye	9 times.
Less than that of the fixing eye	6 times.
The same as	24 times.

There does not seem to be necessarily any greater astigmatism in the amblyopic than in the fixing eye; for instance:

TABLE XI.

In 17 cases	No astigmatism was recorded.
In 5 cases	the astigmatism of the amblyopic was greater.
In 7 cases	the astigmatism of the amblyopic was less.
In 10 cases	the astigmatism of the amblyopic was the same.

Without going into the various theories as to whether the amblyopia of strabismus is congenital, or from disuse (amblyopia ex anopia), it is fair to assume that if the amblyopia results from disuse, it should become not only proportionally more frequent, but also more pronounced as adult life is reached. As to frequency, it is shown by Table VIII that, while amblyopia occurred in but ten and one half per cent. of cases under seven years of age, it was present in twenty-seven and one half per cent. of those over seven years. As to average failure of vision in amblyopic eyes, the following table is instructive:

TABLE XII.

Average Vision in Amblyopic Eyes.

	Average vision.
In private cases under 7 years (1 case)	$^{2}/_{9}$
In hospital cases under 7 years	$^{1}/_{7}$
In private cases over 7 years	⅛
In hospital cases over 7 years	$^{1}/_{40}$

This also bears out the assumption indicating that the average vision in the amblyopic eye suffers a heavy decrease as we go from infancy to adult life, in these particular tables amounting to a tenfold decrease. This, it seems to us, lends weighty evidence to the theory of amblyopia from disuse as against Schweigger's theory of true congenital amblyopia.

Variety of Squint.—The proportion of unilateral to alternating cases is about the same in this series as in those of Schweigger, Holthouse, and Worth, i. e., about 9 to 1. This is using the term alternating in its strict and, really, its true sense; namely, that the subject of such strabismus can voluntarily look at a given object, first with one, and then with the other eye, by request. This, to my mind, is the best result that Nature achieves in those to whom binocular vision is not possible. Next to these in order come those unilateral esotropes, who have almost equal and almost normal vision in both eyes, but who always use one and the same eye for fixing. In this class, the vision of the deviating eye is rarely below $^{5}/_{20}$, that is to say, the deviating eye, when the fixing eye is occluded, still has reading vision. These might be called intermediate cases. Finally, we come to the true type of unilateral strabismus, in which there is essential amblyopia or vision of less than $^{5}/_{20}$, and more or less loss of central fixation in the deviating eye.

Refraction.—This, the third great element in the study of esotropia, is always of dominant interest. With the vision and the degree of deviation known, the main question is, What is the refractive status?

TABLE XIII.

Simple hypermetropia	53
Simple hypermetropic astigmatism	31
Compound hypermetropic astigmatism	80
Mixed astigmatism	1
Compound myopic astigmatism	1

The table shows the preponderance of hypermetropia all too plainly, but also strongly points to the part played by astigmatism in hindering the evolution of binocular vision.

The following table, agreeing with all statistics offered on this point, shows that the average degree of total refraction is most frequently under 4 dioptres. The largest number fall between 1 and 2 dioptres:

TABLE XIV.

	P. under 7.	H. under 7.	P. over 7.	H. over 7.	Total.
Under 1 D.	6	9	7	22	44
1 to 2 D.	9	20	10	39	78
2 to 3 D.	2	16	7	35	60
3 to 4 D.	9	18	7	30	64
4 to 5 D.	5	16	3	18	42
5 to 6 D.	1	9	..	13	23
Over 6 D.	4	2	2	11	19

The influence of ametropia, and especially of astigmatism, in the production of strabismus is, as Jackson so urgently pleads, far reaching. For instance:

TABLE XV.

Astigmatism and Strabismus.

	Proportion of astigmatism.
Private cases under 7 years	75 per cent.
Private cases over 7 years	77 per cent.
Hospital cases under 7 years	35 per cent.
Hospital cases over 7 years	42 per cent.

These hospital records were taken from old records, and not from new cases specially picked out for study. Even with the hurried work incident to a crowded clinical room, we are able to show thirty-eight and one half per cent. of astigmatism in the hospital series, less than 0.50 D. errors not being admitted to the count. It is in the private series that I think we come nearer to the real facts. Even among the children under seven years of age, astigmatism was found in seventy-five per cent. of the cases. This, of course, was objective astigmatism, and where there was any doubt about the findings (retinoscope and ophthalmometer) at least 0.25 D. less than the estimated error was ordered. Among the private patients under seven years of age, the proportion was even a trifle greater, i. e., seventy-seven per cent.

Results.—From the very nature of things this is the most difficult phase of any statistical study to present rightly. The temptation to twist facts even slightly, so that the best possible showing may be made, is all powerful. Moreover, the personal equation enters largely into the problem. What one worker might pronounce a cure, another might put down as a mere improvement. In the figures about to be shown, I have put down the plain facts as they stand upon my records. In the hospital cases, I could not find much in the way of records after the date on which the refraction was estimated. Only the private cases, therefore, will be used in this portion of the study.

Of the 18 private cases under seven years of age, no record can be obtained in 1 case; improvement was gained in 3 cases; parallel axes, or closely so; i. e., esophoria of 8° or less was gained in 14 cases.

Sixteen per cent. improved and seventy-two per cent. cured seem high percentages, and I wish there were other statistics relating to the results of optical treatment in little children with which these figures might be compared. Everywhere in ophthalmic literature can be found abundant general statements, but no specific data. Holthouse, for instance, says in a footnote: It may be stated that, on account of their tender years, little could be learned from these (7) periodic cases, unless the efficiency of spectacle treatment as applied to them. *They were all readily cured by the use of glasses,* but were too young to furnish any useful facts as to vision and the questions connected therewith.

Worth says of periodic squint: "*optical correction of the refractive error at this period often cures the deviation.* But, if nothing is done, the excessive exercise of the function of dynamic convergence causes an abnormal static convergence to appear; so that the visual axes are convergent even when the eyes are completely at rest. At this period optical correction does not cause an immediate disappearance of the deviation. It may do so, perhaps, after the glasses have been worn for a few weeks or months." In only two out of the infant series here presented did parallelism become established within three months. The majority of them were about one year in becoming parallel.

With the private patients under seven years of age, I desire to contrast the private patients over seven years old. Of these

TABLE XVI.

No record can be obtained in	2 cases.
Improved with optical correction	1 case.
Cured with optical correction	3 cases.
In no wise influenced by glasses	12 cases.

The three patients (sixteen and two thirds per cent.), who were cured by glasses alone were of ten, eleven, and thirteen years of age, respectively; in other words, still young enough to enjoy the chance that remains to all before puberty. Should treatment not be instituted until after puberty, there is small hope for influencing the strabismus by optical means only.

Of the twelve patients that were not benefited by optical treatment, ten were operated on:

TABLE XVII.

No.	Age.	Degree.	Refraction.	Operation.	Result.
1	10	30	45° 2.00 s 50° 2.50 c 1.00 90°	Tenotomy l. int. rect.	Esophor. 5°
2	13	40	2.50 s 2.00 c	Tenotomy both recti.	Divergence, 10°.
3	16	30	9 90° 2.25 s 50° 2.25 s 50° 90°	Double tenotomy by a traveling doctor.	Esophoria, 11° L. Hyperphor. 9°
4	20	20	1.75 s 1.00 1.00 s 90° 1.75 s 50° 90°	Tenotomy r. int. rect.	Esophor., 2°
5	38	35	1.00 0.50° 90° 1.00 0.50 0.90	Double tenotomy.	Parallelism.
6	15	35	3.00 3.50 1.50 90°	Tenotomy l. int. rect.	L/Hy., 6°. Eyes straight with this on.
7	10	30	1 00 .95 1.35° 1.25 .37 1.80°	Double tenotomy.	1 year later 15° convergence.
8	17	20	1.00 .25° .90° 2.00 1.00 1.05°	Double tenotomy.	7 years later, 15° convergence.
9	11	35	2.00 2.00	Double tenotomy.	Parallelism.
10	50	40	1.50 1.50 .25° 1.00 1.50 1.65°	Tenotomy l. int. rect.	After 2 years 15° convergence.

All of the cases in the foregoing table were hypermetropic.

It will be seen that in this series, five were practically cured by operation. Of these five, one was obliged to wear, incorporated with his correction, 6° of vertical prism, divided between the two eyes. With this correction he has perfect lateral balance. Without it, he develops in twenty-four hours 10° to 15° of esophoria. It is possible that in this case, had the superior rectus of the left eye rather than the two interni been tenotomized, the patient would have secured lateral balance. However, in spite of frequent and repeated trials, it was impossible to decide about the vertical element, and the interni were selected for operation with the stated result. Of the remainder, four were much improved, while one was overcorrected (Case 2). The latter was one of my early cases, and in my zeal I divided everything in sight about the insertion of both interni.

TABLE XVIII.

Cases.	No record.	Unimproved.	Improved.	Cured.
Cases under 7 years of age..	12 %	..	16 %	72 %
Cases over 7 years of age....	12 %	66 %	5½ %	16⅔ %

My main object in contrasting these two private series of cases is to show that before the seventh year, sixteen per cent. of the cases were improved and seventy-two per cent. entirely cured by the use of glasses and fusion training, while in the series of patients over seven years of age, but six per cent. were improved and only sixteen and two thirds per cent. were cured by optical treatment alone, and those that were cured were under thirteen years of age. In other words, in the child series, eighty-eight per cent. of the whole number were benefited by glasses and seventy-two per cent. of the whole number cured. In the adult series, but twenty-two per cent. of the whole number were benefited by glasses, sixteen and two thirds per cent. were cured, and sixty-four per cent. were absolutely uninfluenced by glasses. The wisdom of the earliest possible treatment of strabismus by orthoptic measures can hardly need any urging after such figures.

Remarks.—While not strictly germane to a purely statistical paper, it may not be out of place to say something of the methods pursued in the treatment of the private patients under seven years of age. Seeing that the three major points in the consideration of esotropia are the vision, the degree of deviation, and the refraction, these points were carefully worked out. Vision can be roughly estimated even in children as young as two years old. Worth's ivory balls are useful in very small children under two years of age, but with children of two years and over, an ordinary object test card will with persistence give surprising results. The deviation in these little ones has been best found by means of Priestly Smith's tape measure method. The only modification was that in the hand that is to be fixed, there is carried a miniature electric light that proves of such interest to the child that in the vast majority of cases there is no trouble in estimating the deviation.

The refractive status is obtained objectively. The ophthalmometer is brought into play to detect any marked astigmatism; the child is then taken on the mother's or attendant's knee, when with the retinoscope at one half metre's distance (20 inches), the lenses may be held in the surgeon's left hand while he uses the retinoscope with the right hand. Spherical errors are thus easily measured. For any astigmatism that may show, a light trial frame is necessary. In this way a measurement, accurate enough for scientific purposes, is secured. The full correction is then ordered, and if there is a marked amblyopia, a solution of one half of one per cent. of atropine ordered each morning in both eyes for one month, the glasses, of course, being worn all the time. In this way the child is taught the necessity of wearing the glasses. After one month, if there is marked amblyopia, which is infrequent in children under five years of age, the atropine is used in the fixing eye only until the previously deviating eye is made to fix steadily. Then atropine is used in both eyes each morning, for from three to six months, when, if the deviation is lessening, as it generally is, it may be withdrawn for a month to observe how the eyes act without a mydriatic. If they show a disposition toward parallelism, the atropine may be permanently withheld and the amblyoscope used twice or thrice weekly. The main advantages of the amblyoscope are that with it the retinal stimulus of the two eyes may be equalized; and it may be adapted to any degree of deviation and simultaneous macular stimulation thus secured. The importance of these two points cannot be overestimated. If after withdrawal of the atropine the eyes again show a tendency to converge, it should be renewed in the eyes once daily. In three of my cases I used atropine in this way for a whole year. To-day (after three years) the children have parallel axes and full vision and range of accommodation in each eye. I emphasize the latter point, as it has been argued by some high authorities that prolonged use of atropine in both eyes will interfere with the proper development of the functions of the retina and ciliary muscle.

Picture books, play blocks, alphabets of all sorts are strictly interdicted up to the fifth year. This may seem like a hardship to the child, but the end striven for justifies all the time and trouble required. There will always be parents who become impatient of this slower, but surer, method of straightening crossed eyes. To such it may be frankly said that they are in all probability denying their child the ultimate privilege of binocular vision, one of the highest blessings vouchsafed the human race.

In conclusion, I desire to offer the following tentative propositions as the result of this experience with esotropia:

1. Esotropia is most likely to manifest itself before the end of the third year.

2. It cannot yet be said whether any of the various reasons assigned by parents for the appearance of strabismus have aught whatever to do with it. Whooping cough may be related to it.

3. Heredity certainly plays a part in bestowing upon some children a congenitally deficient visual apparatus.

4. The degree of deviation will average about 30° in a large number of cases. It is in no special way bound up with the degree of refractive error.

5. The amblyopia of esotropia is presumably an amblyopia ex anopia, the present day evidence being against Shweigger's theory of a congenital amblyopia.

6. The degree of amblyopia increases with the length of time elapsing between the appearance and the time of treatment; especially is this true after the seventh year.

7. Improvement may be expected in the amblyopic eye in fifty to sixty per cent. of cases by properly adjusted glasses. This improvement varies from twenty per cent. to ninefold betterment.

8. While a defectively developed fusion apparatus has much to do with the genesis of esotropia, the influence of hypermetropia and its allied states seems almost as important as in the days of Donders. The part played by astigmatism is no little one.

9. There seems to be no special relation between the degree of refractive error and the degree of deviation.

10. Hypermetropic conditions of from one to four dioptres seem most commonly associated with esotropia.

11. A very high degree of hypermetropia does not necessarily exclude strabismus, as three cases in the series here presented were of 11 D. and over.

12. If taken before the fifth year, there seems no reason why the strabismus should not be cured by non-operative methods in seventy per cent. of cases. This percentage will, in all probability, be increased to eighty per cent. in the next ten years.

13. The results of non-operative treatment in children, if adhered to with any persistence, are infinitely better than any "scissors" statistics thus far offered.

I cannot more fittingly close this paper than with a quotation from an article by Dr. Edward Jackson in the *Journal of the American Medical Association* for October 26, 1901: "The accurate correction of ametropia being the most important single measure in the treatment of squint, and this being most effective in the earliest stage, it follows that no one who cannot measure refraction objectively, no one who cannot apply skiascopy with sufficient accuracy to obtain by it the data for prescribing lenses, is competent to treat strabismus. This sounds like an extreme statement. Judging by old standards of attainment and old methods it is unduly so. But the experience of the last five years has established a new standard of success in the treatment of convergent strabismus in children, to be attained only by a method of which the foundation is the accurate correction of the refraction, and that at an age when the patient can give no assistance as to its measurement. In view of this, any milder statement simply falls short of the truth."

1212 Spruce Street.

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Another Antivaccination Lie Nailed.—An item has been going the rounds of the press relative to the death of William Taylor, a child, at Port Huron, Mich., alleging that the parents believe that his death was caused by vaccination. But an official report to the secretary of the State board of health, clearly proves that the alleged belief had no foundation in fact. The report says that a short time after vaccination the child was taken sick with bowel trouble and had no medical attendance, the parents being Christian scientists. After the death of the child, the coroner called in a reputable physician and found the vaccinated arm, aside from a small scar, was exactly the same as the other, and showed no sign of having been inflamed. The physician and the coroner came to the conclusion that the child had died of enterocolitis. It appears that the parents belong to a sect whose members do not believe in vaccination, nor in calling a physician, and undoubtedly would have been pleased to have had the death recorded as due to vaccination, especially as otherwise there is a suspicion as to the effect of the lack of proper medical attendance for the relief of the enterocolitis.

CLEARING SHIP FOR ACTION.

By J. A. GUTHRIE, M. D.,
PORTSMOUTH, VA.,
U. S. S. FRANKLIN.*

One morning while the ship to which I was attached, the *Alliance*, was lying at anchor in Hampton Roads, in company with Admiral Schley's Flying Squadron, for this happened during our war with Spain in 1898, the battleship, *Massachusetts*, passed in from the Virginia Capes and anchored near us. It struck me that a dear friend was aboard, so I determined to run over and breakfast with him. I wish to explain here, what breakfast on a man-o'-war means. In the early morning, the deck officer may have his breakfast at five o'clock if he likes, and his relief may have it a little later, say at eight o'clock; and some, less energetic, those who do not stand watch at all, the staff, may have theirs as late as nine. But the meal generally known as breakfast in the wardroom of every naval ship, and which has a fixed time, viz., noon, is the breakfast I refer to, and which you will see later, I nearly got euchred out of because of the strenuosity of the times.

Stepping from the dinghy, hardly had I reached the gangway, when there rang forth the stentorian order: "all hands clear ship for action." Three years previously I had become accustomed to such as a routine drill on board the second class battleship *Texas*, but there is a vast difference in carrying out this order on board a first class battleship. So, instead of holding my boat and returning to the (old corvette) *Alliance* at once, I changed my mind and decided to see it through. The bugle sounded the refrain, Yankee Doodle, when a seemingly peaceful community was metamorphosed into a chaotic mass. To land lubbers such is verily the case, for I have heard them describe this drill, thus: at the order, every one on board will rush about like mad, grabbing everything in sight and then immediately slam it down again. Grabbing up anything and throwing it down, to their minds, is what it all looks like.

The first thing to be done by each deck division is to look to the fire of its respective batteries. Any obstruction interfering with the range of the guns is cleared away, especially such objects which, if accidentally hit, would cause splinters to fly about deck. The awning stanchions are the first to attract the eye, and these are promptly turned flat on deck; boat davits are similarly dealt with. Such stanchions and boat davits as are not hinged, have to be lashed to the ship's side. Next, the ridge ropes and life lines, which are stretched all the way around the spar deck, are unrove and sent below. The polished brass hatch canopies, and the skylights covering smaller hatches, are unshipped, and sent below; in actual battle, these would be thrown overboard. In their place steel plates, known as battle hatches, cover all such openings on deck. Every accommodation ladder is unshipped and sent below, or thrown overboard. A number of chests containing tanks filled with alcohol, turpentine, and other inflammable liquids, are required to be kept on the spar deck, as a precaution against fires, as it is evident that these must be thrown overboard before going into action with an enemy. Other valuables required to be kept on deck, are similarly disposed of if necessary. The booms we notice sticking out from the side when a ship anchor, with her boats moored to same, are known as lower booms; these are lashed alongside. The ship's boats require special attention; the sails of these are first well wetted (as it is expressed in the order); in other words, soaked in water, and then passed underneath the boats, as a precaution against fire. A splinter net is also passed underneath each boat, to prevent the wood from flying about. If the ship is not at sea, that is, if she is in a roadstead, then the boats may be dropped astern and towed about during the battle, or anchored off somewhere at a distance in shoal water until the action is over.

The next procedure, is to see that all signal men are ready to send and receive signals, at the same time; the covers of signal books are weighted with slabs of lead, so that they may be thrown over and lost at the bottom of the sea, should the ship be obliged to surrender. The American ensign is now hoisted at every masthead, and the flag at the stern, with its staff, is taken down. This is done to bring the chances of the flag being shot away to a minimum. Two grapnels are procured for each quarter, to be used in clearing away wreckage, which might come in contact with the propellers. Here we finish with the upper deck and superstructures. The spar deck now has a barren and unsightly appearance, and is dangerous to walk on, because with every roll of the ship, there is a good chance of being drowned on account of the removal of the life lines and ridge ropes.

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* *Franklin*, ship of the line, 2,257 tons, 74 guns. Built 1815. Broken up 1852-53. Rebuilt at Portsmouth, N. H., 1854, as a steam frigate, 51 guns. Launched, 1864. Received machinery at Boston, Mass. Sailed from New York on first cruise, 1867.

The first *Franklin* was in commission in 1815 under Captain J. Smith. October 14, 1817, sailed from Philadelphia as flagship of Commodore Charles Stewart for the Mediterranean squadron. Carried out Mr. Rush as Minister to England. Returned to New York April 24, 1820. October 11, 1821, sailed from New York as flagship of the Pacific squadron, Commodore Charles Stewart. Returned August 29, 1824, to New York. In ordinary, 1825-1842; 1843, receiving ship, Boston, and towed to Portsmouth to test floating dock. The winter of 1853 the "new ship-house at Portsmouth Navy Yard was lengthened 50 feet and the keel of the frigate laid; the old ship being under process of demolition. (Hammersley's *Nav. Ency.*)

The second *Franklin*, or new *Franklin*, steam frigate, sailed from New York June 28, 1867, as flagship of the European squadron, under the command of Admiral D. G. Farragut. She returned to New York November 10, 1868.

1869-1871, flagship, European squadron.

1872-1873, laid up at Boston.

1873-1874, in the North Atlantic squadron.

April 11, 1874-1876, flagship, European squadron. For a short time in the latter year special service, under the command of Captain Ransom.

1877-1904, receiving ship, Norfolk, Va.

1881 (October), was used as a hotel ship at Yorktown centennial.

Let us now peep below at the busy workers about the steel protective deck, the engine rooms, and berthing spaces. The protective deck is an arch of steel, averaging some three inches in thickness, which usually extends over the entire length and breadth of the ship, just at, and slightly above, water line. This deck is for the purpose of protection against sinking as well as to guard the vitals of the ship, *i. e.*, her engines and magazines; its thickness and incline to the line of fire, render it practically impenetrable, and thus the buoyancy and propulsion of the vessel are rendered safe.

Below, all ladders not absolutely necessary for use are unshipped. All mess chests and ditty boxes are either stowed below the water line or thrown overboard. Every water tight door, except those absolutely necessary for communication, is closed. A very important matter is to be sure that every fire hose is connected up, and led out ready for instant use. The chief surgeon establishes two or three stations, each in charge of an assistant. The regular complement of a first class battleship includes three medical officers, but it is so difficult to obtain doctors for the navy that, as a rule, a battleship may be considered lucky if two are detailed nowadays. Three stations are established, in charge of the medical officers, and if there are not enough medical officers, then the hospital steward may have charge of one. The selection of the stations by the chief surgeon is left to his judgment. In most instances the wardroom table is used as an operating table, and the other station is situated in the sick bay of the ship. The third station may be located below the protective deck, well out of harm's way. At these stations an operating table is rigged up, and instruments, solutions, surgical appliances, and dressings are opened up and handy for immediate use. The hospital apprentices distribute to the different guns' crews a supply of tourniquets and first aid packages. Every man in the navy is required to know the use and application of these. As a regular drill, the surgeon, at stated times, instructs every man in the ship how to carry a wounded man, how to resuscitate the drowned, how to apply tourniquets, etc. Sometimes either end of the armored citadel is used as an emergency surgical station. The hospital apprentices (navy trained nurses) stand by to conduct the wounded to the surgeons, and otherwise assist them in every manner possible. If a surgeon has his station within the casemate or citadel, then he is pretty safe, but usually he is in the sick bay, situated in the bow, and very much exposed to shot and shell.

In the engineer's department, fires are started under all boilers, and preparations are made for steaming at full power, and under forced draught. Steam is turned on the engines that work the turrets, the steering gear, and the windlasses. All battle hatches of the protective deck are closed, and the ship is ready to meet the foe.

CHRONIC DYSENTERY: TWO CASES TREATED BY INGUINAL COLOSTOMY AND IRRIGATION.

By G. CHILDS MACDONALD, M. D., F. R. C. S. ED (*EXAM.*),
SAN FRANCISCO, CAL.,
SURGEON TO ST. MARY'S HOSPITAL.

A. A., aet. thirty-four years, native of West Indies, single, male quadroon. Was admitted to St. Mary's Hospital on August 8, 1903, complaining of bloody diarrhœa, emaciation, and general weakness.

History of Present Illness.—Diarrhœa commenced while patient was residing at Cape Town, South Africa, in January, 1903. The evacuations at this time were about four a day, gradually increasing to about once every hour during the day, and from four to seven times at night. The patient describes the stools as being small, slimy, bloody, and watery; at times bloody pus or frothy, like beer. Considerable pain and tenesmus. Has lost in weight 60 pounds.

Previous health good; no venereal disease.

Present Condition.—A well developed quadroon, height 5 feet 7 inches; body and limbs thin; tongue coated, sordes on teeth; no marks on body.

Digestive System.—Appetite good and always has been, has a good deal of pain in the umbilical region; considerable flatus (belched); no vomiting; frequency of defæcation independent of ingesta. Liver dulness from fifth rib to a finger's breadth below costal cartilage in nipple line. Splenic dulness slightly increased. Abdomen retracted. No tumors or bulgings. Tongue flabby and coated with dark brown fur; sordes on teeth. Temperature, 99° F. Pulse, 80°. Stools mostly made up of pus, blood and mucus.

Respiratory System.—Normal, 99.4.

Circulatory System.—Normal.

Genitourinary System.—Urine amber, acid, sp. g. 1015, no albumin, no sugar.

Hæmatopoietic System.—Not examined.

Microscopical Examination of Stools.—No amœba. Large, non-motile bacillus. From the 8th of August patient was treated by high enemata—3 quarts of alum solution (10 grs. to ℥i) twice daily—and antiseptics, astringents, and opiates by mouth, the chief being benzonaphthol, calchu-kino, opium, bismuth, lactopeptine, and a diet of peptonized milk, rice, and rice water, etc. No improvement having shown itself, he was operated on on the 16th of August, inguinal colostomy on the right side being performed. The incision was about four inches long and in the usual position. The cæcum was sutured to the peritonæum and muscles, care being take that the sutures penetrated only the peritoneal and muscular structures of the gut. This latter was freely opened two days after. On the 19th inst. irrigations of potassium permanganate, one in ten thousand, were commenced, twice daily. Two gallons was the quantity used at each irrigation. A good sized piece of rubber tubing was placed in the rectum so that the solution had a free flow through the large intestine and out via the anus. At the end of the first week a decided improvement was noticed in the patient's general condition, all dysenteric symptoms having ceased. The bowels only acted when washed, consequently the irrigations were cut down once in twenty-four hours. The ingesta, which up to now had been of peptonized milk, were gradually increased, until, at the end of the third week, he was taking full diet. From the time of the operation to the 16th of September a tube, half an inch in diameter and an inch and a half in length, had been kept in the inguinal wound to prevent it closing. This was prevented from slipping into the bowel by having adhesive plaster rolled a sufficient number of times round the tube to form a shoulder or ledge. The whole of the wound had been dressed with a thick pad of marine lint, which kept the parts sweet and prevented leakage. On the above date an effort was made to close the wound permanently. This appeared to be successful, the new wound healing by first intention; but after two weeks it reopened, owing to a small abscess having appeared at a point where a deep catgut suture had been used to close the bowel. Nearly the whole wound opened up, being completely undermined. The patient was continued on full diet. Two more unsuccessful attempts were made. The third, on December 3, 1903, resulted in a small fæcal fistula, which gradually closed. The bowels generally moved once daily, but sometimes missed a day, when castor oil was given. Patient commenced to put on weight the third week after operation. He was discharged on Monday, February 29, 1904, perfectly recovered, weighing 148 pounds, his highest being at any time 150 pounds.

Thos. G., aet. forty-two years, native of Scotland. Married. Occupation, carpenter. Admitted to St. Mary's Hospital on January 5, 1903, for chronic dysentery.

History of Present Illness.—Patient was taken ill with dysenteric diarrhœa while working at his trade in Guatemala, Central America, on May 5, 1900. He was treated there until August, 1900, when, as he did not improve, he was advised to leave for the North, which he did, arriving at San Francisco in September. His weight now was 138 pounds, a loss of 30 pounds or thereabouts. He placed himself under the care of a well known physician and remained under this gentleman's treatment until November. No improvement. He went to Canada, where he remained for twenty months, eight months of which time he was in the Brockville Hospital, still getting worse. The remainder of his stay in Canada was passed in Quebec, Athens and some smaller towns. He left Canada on August 1, 1902, for San Francisco, arriving on the 6th of that month. His weight now was 113 pounds. On the 16th of August he was admitted to the City and County Hospital. He remained at this institution until the 5th of January, steadily going down hill, his weight being now 95 pounds.

Present Condition.—Patient is a well developed man of forty-two years of age. He exhibits marked wasting, there being no fat anywhere about his body. The muscles are flabby, the skin hangs in bags and folds. Skin muddy, facial expression pinched and anxious. Has about six evacuations daily, containing blood, pus, and slimy mucus, sometimes alone, at other times with fæcal material. There is considerable tenesmus. Patient has been under special diet and drug treatment at the City, County and other hospitals, so evidently there is nothing to be hoped from this line of treatment.

The pathologist reports that there are no amœbæ present in the stools, but bacilli of an indefinite character. I therefore decided to operate, which I did on the 13th of January, 1903. A right inguinal colostomy was done, the cæcum being opened. The edges of the abdominal wound were whipped with a continuous suture fastening the peritonæum to the skin; the cæcum was then sutured to this, care being taken that the suture only passed through the peritoneal and muscular coats of the gut. The wound was packed with iodoform gauze and the patient returned to bed. The cæcum was opened two days later, viz., the 15th inst. On this date the potassium permanganate solution irrigations were commenced. Three gallons was the amount passed through the bowel at each irrigation, strength 1 to 10,000, twice daily. A large tube with shoulder was placed in the inguinal wound, and the anus was made patulous by a similar process.

The patient commenced to improve at once, the pus and blood having ceased to be noticed at the end of the third week. Improvement was likewise noticed in color, general appearance, and weight. No action of the bowels, except when washed; this was now done only once in twenty-four hours. Patient put on ordinary diet at the end of fifth week and an ounce of the compound hypophosphites given three times daily.

On the 17th of June an attempt was made to close the opening. There was a considerable amount of prolapsed mucous membrane in the wound, which was pushed back and retained by packing the cæcal cavity with iodoform gauze, the end being retained outside. The edges of the wound in the gut were freshened and brought together with No. 2 catgut. The skin and muscular tissue were then dissected back for about an inch. The surface over the bowel was turned in with a Lembert's suture. The skin and muscular structures were then closed with silkworm gut. Three days afterward the whole wound reopened and the fæcal discharge was as free as ever. On the 26th of June another attempt was made to close the opening. The mucous edges were freshened as on the previous occasion, and sutured with No. 2 chromatized catgut, instead of with plain. When the mucous edges were brought accurately together the wound was irrigated with a hot solution of H_2O_2. The bowel was now freed from its attachments and the peritoneal surfaces brought together with a Lembert suture of chromatized No. 2 catgut, the skin and muscular tissues were brought together with silkworm gut. Patient made an uninterrupted recovery, leaving the hospital on the 26th of July, 1903; weight, 176 pounds; bowels moved once in twenty-four hours, of normal consistency.

Patient was again admitted to hospital on the 30th of January, 1904, suffering from a left side croupous pneumonia. He went through the usual course of the disease. He reported that after leaving the hospital he returned to work at his trade as foreman carpenter; that his health had been good, and that he had had no return of his diarrhœa or any dysenteric symptoms. His bowels were moved once daily. The coughing incidental to the pneumonia stretched the inguinal scar somewhat, and he exhibited a small ventral hernia. This was retained by an elastic abdominal belt. His weight was still 176 pounds.

This latter recorded case is of particular interest, because of the length of time, three years, during which the patient was incapacitated from earning his living, and of the many medical hands he had passed through and the treatments to which he had been subjected. He had spent the whole of his savings and had had to sell his home. There is no doubt in my mind that all chronic cases of dysentery and most acute ones should be operated on. The cæcum is the home and head centre of the germ, whatever one is there, and I believe that this operation will, in the future, be just as common as wiring a fractured bone. The death rate of dysentery, both acute and chronic, is quite high; in future it should be reduced materially. There is some difficulty in closing the wound; at least, I have found this to be the case. I object to the old semicircular flap, inasmuch as we then have two weak places in the abdominal wall instead of one; but I find that if we close the gut carefully and then dissect back far enough, so as to get to the peritoneal surface of the bowel, and use a Lembert's suture, the closure becomes easy. Permanganate is no doubt the best solution to be used; plenty of it, and hot.

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Physician Falls Through Elevator. — Dr. Charles C. Jelliffe, of 233 West Sixty-eighth Street, was seriously injured recently by falling from the second floor to the basement through the elevator shaft in the Miller Building, at 1931 Broadway. He was removed to Roosevelt Hospital, injured internally. The elevator door was open and Dr. Jelliffe, thinking that the car was in place, stepped into the shaft.

PRIMARY NASAL DIPHTHERIA; A PLEA FOR ITS EARLY RECOGNITION AND A REPORT OF THREE CASES.*

By ANNA S. WILNER, M. D.,

NEW YORK.

We all have been taught the gravity of nasal diphtheria which, we are also told, is usually secondary and only occasionally primary, but always grave. We all remember that the involvment of the nose makes the prognosis of a case of diphtheria so much worse; we therefore expect very serious systemic symptoms, and extensive enlargement of the glands of the neck. In every textbook on general medicine, or diseases of children, or the nose and throat, we find a more or less lengthy article on the grave form of nasal diphtheria, whereas of the mild, primary nasal diphtheria very little, if anything, is mentioned even in the latest textbooks.

So much are we impressed with the severity of nasal diphtheria, that the idea of its mild primary form very seldom enters the mind of a physician, consulted about a child suffering from a persistent nasal discharge. The patient, usually a child, is generally well in every other way, there being, as a rule, neither fever nor sore throat, but only the nasal discharge with more or less redness of the upper lip, and most always excoriation of the nose. Only occasionally there may be a slight general malaise in addition; and the case is lightly dismissed as one of a cold in the head.

Though as a rule these cases run, as we shall later see, a mild course, and get well with very simple or without any treatment, there is some danger, in the first place, of the diphtheritic infection spreading and becoming troublesome if not serious or even fatal, and, in the second place, but less frequently, there is even a possibility of the disease taking on a toxæmic character and proving fatal in this way. But *the great and constant* danger, connected with these cases of mild nasal diphtheria, is that of infecting others and who knows, that the frequent cases of diphtheria that we all encounter where the infection cannot be traced, have not been contracted from children who were supposed to have only a protracted cold or a sore nose, which was slow in healing, but who, in reality, had their nasal cavities swarming with the bacilli of diphtheria, and disseminated the disease wherever they went? The danger of infection from these cases is greater than from severe cases; for, in the first place, the latter are confined and the former are at large; and, in the second place, the infection is more liable to spread from the nasal secretion than from the throat, as children do not as a rule expectorate, while, on the contrary, they are not so careful as to their nasal discharge. The great danger of infection connected with mild nasal diphtheria was pointed out in 1888 by Dr. McCollum (1), when discussing the epidemic of diphtheria in Boston at that time.

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* Read before the Women's Medical Association of New York, April 20, 1904.

This affection is more common than one would infer from the little, if any, mention made of it in the textbooks and the scarcity of cases reported. The trouble is that, owing to its mildness, no medical advice is sought; and again it is often taken for something else. The real nature of the disease is frequently discovered either accidentally, when the infection spreads, or when diphtheria of a more serious nature appears in another member of the family. But if close observation is made, these cases are found to be not so rare after all. Lamber Luck (2) said that of all the children attending hospital practice, so called, 2½ per cent. had fibrinous rhinitis. Of the relation of the fibrinous rhinitis to diphtheria we will speak later. Dr. Frederick Burrows (3) and Raymond Glatard (4) both state that about 40 per cent. of all the diphtheria cases have a more or less severe diphtheritic affection of the nose.

Ætiology.—The main ætiological factor of primary nasal diphtheria, as well as of diphtheria anywhere else, is the Klebs-Löffler bacillus. It is true that the mere presence of the bacilli of diphtheria is not enough to cause the disease, and just as the bacilli coli communes, streptococci or pneumococci, and others may be found in a healthy organism and are what is called in a saprophytic or latent state, so we often find the bacilli of diphtheria in a healthy person. The nose, especially, owing to its anatomical peculiarities, affords a very good place of abode to the different bacteria, which seem to be always on hand and ready to act, whenever some of the various predisposing causes render the conditions favorable. Of the predisposing causes like climatic conditions, age, unsanitary and unhygienic surroundings, overcrowding, and the rather obscure greater severity of some epidemics in comparison with others, we will not speak, as they remain the same concerning diphtheria anywhere. We shall only mention those characteristic of the nose: a diseased condition of the mucous membrane of the nose, like catarrhal inflammation, or hypertrophy, or presence of adenoids; a sudden congestion brought on by traumatism. Pluder (5) reports a case of a patient, who previously only had a simple rhinitis, but after falling and hurting his nose, developed nasal diphtheria; he also reports another case where the mere irritation caused by the extraction of a foreign body from the nose was enough to change the preexisting catarrhal condition, due to this foreign body, into a diphtheritic rhinitis. The inflammation caused by the use of the galvanic cautery and snare and the removal of adenoids have been known to be followed by the appearance of nasal diphtheria. The other infectious diseases, like scarlet fever, measles, whooping cough, influenza, and typhoid seem often to act as predisposing causes by inducing a catarrhal condition of the membrane and so rendering the soil more favorable for the bacilli and also, perhaps, by reducing the resisting power of the patient. Measles, especially, is apt to be followed by nasal diphtheria, and it usually appears when the symptoms of the original disease are already declining. While the diphtheritic inflammation is limited to the nose, it does not change the clinical picture, as there is always more or less nasal catarrh, and diphtheria is not even suspected, but when it spreads to the pharynx or, more often, to the larynx, the trouble is recognized.

Symptoms.—The symptoms of this disease are indeed very much like those of a simple rhinitis, and therefore it is easily mistaken for the latter. They are a persistent, watery, and occasionally a mucopurulent discharge from one or both nostrils. The discharge is of a very irritating nature, and usually produces redness of the upper lip and excoriation of the nose. The excoriation is more or less characteristic, as it is usually situated at the very edge and all around the nostrils. The crusts are mostly thin and scanty and the skin between them is inflamed and has a glazed appearance. The discharge has, as a rule, no odor whatever; occasionally there is a disagreeable odor, but it never has the characteristic offensiveness of the bad secondary case. It is often streaked with blood and sometimes there are nasal hæmorrhages, which are only rarely severe. In some cases we have only bloody oozing, which, some authorities claim, is a symptom of a grave case. On looking into the nose one almost always finds a grayish white membrane; sometimes there is no membrane to be seen, as it may be either higher up, or in some of the sinuses, or altogether absent. The mucous membrane in the latter case has a peculiar, denuded look. The membrane is sometimes slow in its appearance, as in a case reported by Holt (6), where a child, two years old, suffered from nasal diphtheria and the membrane did not appear for three weeks. The membrane is either only slightly adherent and thrown off in casts, or tightly adherent and then its detachment is followed by more or less hæmorrhage. The nose is often somewhat swollen.

The constitutional symptoms are either absent or the patient may only have a very slight elevation of temperature, and look only slightly indisposed, seldom worse than from an ordinary cold. The glands of the neck are, as a rule, not enlarged unless the nasopharynx is involved. There are very few cases of pure nasal diphtheria where the constitutional symptoms are very bad, but there are some reported where toxæmia developed and proved fatal. Dr. de Blois (7) reports two cases with severe constitutional symptoms; one in a boy, four years of age, who had nasal diphtheria, he was quite sick, and even had attacks of dyspnœa, but recovered at the end of three and one half weeks; the other of a very robust man, suffering from the same affection, where sepsis developed and death ensued on the fourth day of illness.

The absence or the mildness of the systemic symptoms in the greater majority of cases is a peculiar phenomenon especially in view of the severity of the nasopharyngeal cases. Several explanations of this have been brought forward. Some, like Dr. D. McKenzie (8), attribute this absence to a certain immunity on the part of the patient; but this theory does not seem to hold good altogether, as we have cases reported where the patient at first suffered from nasal diphtheria and had no constitutional symptoms whatever, but, when the membrane spread, grave and even fatal symptoms developed. There are a number of such cases reported. To illustrate this I will quote a case of Townsend's (9), where a child of six years of age had nasal diphtheria for about a week or more, but felt quite well, and had no enlargement of the glands. Then the diphtheritic process spread to the pharynx and larynx and the child died. The question is, what becomes of the immunity in these cases? Another explanation offered is that the bacilli are of a nonvirulent character or, as Ravenel (10) puts it, are in an attenuated state. This does not clear the point. These cases of mild nasal diphtheria have been known not only to prove fatal in the same individual, but even to have caused infection of a very severe nature in others; and, furthermore, the virulence of the diphtheria bacilli of these cases has been proven more than once. Helot (11), Baginsky (12), Stamm (13), and others have inoculated guinea pigs with bacilli from such cases, and demonstrated the characteristic diphtheritic lesions in them.—It is true it has been proven experimentally by Dr. Bernstein (14) that, under favorable circumstances, the nonvirulent bacilli of diphtheria may become of a virulent nature. This theory might well explain the severity of the infection contracted from these mild cases, as well as the development of the lesions of diphtheria in the guinea pigs. But how about the same individual developing severe symptoms, only because the same bacilli have spread from the nasal mucous membrane to the pharynx or the larynx? There must be something in this mucous membrane itself, which accounts for the absence of the systemic symptoms. The explanation, offered by Holt, that the poor absorbing qualities of the anterior mucous membrane of the nose is the cause of the absence of systemic symptoms, seems the most plausible.

The systemic symptoms go hand in hand with the involvement of the glands, and Cadet de Gassicourt (15) says that the pure nasal cases of diphtheria have no swelling of the glands at all. Townsend (9) also reports seven cases, in none of which was there any swelling of the glands of the neck. The cases accompanied by swelling of the submaxillary glands and pronounced general symptoms, are usually nasopharyngeal cases. The lymph supply of the nasopharynx is very abundant and is drained by the submaxillary glands, whereas the lymphatic system of the Schneiderian membrane is only connected with the glands situated near the sternocleidomastoid muscle (16).

To recapitulate the symptoms of mild nasal diphtheria: They are a persistent, thin discharge from one or both nostrils, redness of the upper lip, excoriation of the nose, occasional hæmorrhage, a false membrane, which is sometimes absent, and very slight or no general symptoms. In view of these few and rather indefinite symptoms, how are we going to diagnosticate nasal diphtheria from ordinary coryza?

(*To be continued.*)

Proposed Brooklyn Monument to the Late Dr. Creamer.—It is said that a number of prominent physicians in Brooklyn are very much interested in a movement to erect a memorial to the late Dr. Joseph Creamer, who for years was one of the pioneer citizens in the Eastern District. Old Dr. Creamer, as he was more familiarly called, because his son Joseph was also a physician, was one of the best known surgeons in that section. Dr. Creamer died about twelve years ago, of pneumonia. Dr. Creamer was connected with nearly all the large hospitals in the borough, was a police surgeon, coroner, and physician to the poor. The memorial will be in the shape of a granite monument, and will be erected in a public square, Prospect Park, or in one of the proposed city playgrounds.

Our Subscribers' Discussions.

A SERIES OF PRIZE ESSAYS.

Questions for discussion in this department are announced at regular intervals. So far as they have been decided upon, the further questions are as follows:

XXXIII.—How do you treat varicose veins of the leg? (Under adjudication.)

XXXIV.—How do you treat internal hæmorrhoids without an operation? (Answers due not later than December 1st.)

XXXV.—What is your experience in the therapeutical use of yeast? (Answers due not later than January 16, 1905.)

Whoever among our subscribers (with the limitations mentioned below) answers one of these questions in the manner most satisfactory to the editor and his advisers will receive a prize of $25. No importance whatever will be attached to literary style, but the award will be based solely on the value of the substance of the answer. It is requested (but NOT REQUIRED*) that the answers be short, if practicable no one answer to contain more than six hundred words.*

Only subscribers to the New York Medical Journal and Philadelphia Medical Journal *(including regular and volunteer officers of the Medical Corps of the United States Army, Navy, and Marine Hospital Service, commissioned or under contract) will be entitled to compete, and all persons known to be engaged in medical journalism are disqualified. This prize will not be awarded to any one person more than once within one year. Every answer must be accompanied by the writer's full name and address, both of which we must be at liberty to publish.*

The prize of $25 for the best essay submitted in answer to question XXXII has been awarded to Dr. William A. Groat, of Syracuse, N. Y., whose article appeared on page 836.

PRIZE QUESTION NO. XXXII.

THE TREATMENT OF INSOMNIA.

(Continued from page 838.)

Dr. Bradford C. Loveland, of Syracuse, N. Y., writes:

Insomnia may be defined as loss or absence of sleep to such a degree as to interfere with one's health of body or mind. It is not and should not be considered a disease, but a symptom or condition. The condition varies widely as to its cause and also as to its effect on the person afflicted. These variations are due on the one hand to the wide range of causes, environment. physical and mental, and on the other to the personal peculiarity of the individual. Hence it will be evident that any rational method of treatment must begin with a proper conception of the cause and the personal peculiarity in any given case. I have known a patient to complain of insomnia who admitted that he slept eight hours or more a night and took occasional naps in the daytime, and I have known others who did not complain and expressed themselves as satisfied if they got three or four hours' sleep out of the twenty-four. It is evident, then, that we are often required to treat cases in which the actual loss of sleep bears no direct relation to the damage being done to the nervous system of the patient. Hence it may be said that no trouble apparently so simple requires more careful attention and study in order to give what immediate relief is needed and yet leave the patient free from bondage to drugs which might be immeasurably worse than the trouble for which he seeks advice.

The causes of insomnia are mental anxiety. pain, stomach or intestinal fermentation. mental shock, new or uncomfortable environment, acute infectious diseases, and some mental diseases, such as melancholia or mania, as well as a state of mind in which a reversed suggestion seems to inhibit the ordinary sleep processes. That is, it frequently happens that in the chronic case every act of preparation for bed, instead of suggesting the healthy expectation which induces sleep, seems to suggest exactly the opposite. "I know I shall not sleep a wink to-night." These last have been called by a facetious friend of mine insom-mania in contradistinction to real insomnia.

Treatment may be divided into hygienic, medicinal, and suggestive. When the cause is mental anxiety we may be called upon to use each variety of treatment. Clear away the anxiety when possible, encourage the expectation of sleep. Advise wholesome diversion, outdoor exercise to the point of getting tired, the warm bath, or a *hot* foot bath for twenty or thirty minutes before going to bed, or possibly the spinal ice bag at the base of the brain for fifteen or twenty minutes on going to bed. Do anything that the physical health might require. If sleeplessness is a symptom of neurasthenia, galvanism, the positive electrode to the occiput and neck. and the negative at the end of the spine. for six or eight minutes, and 5 to 10 milliampères, is often useful. Usually such cases do not require powerful hypnotics, but at times a pill of camphor, hyoscyamus, and valerian in the evening, repeated as required, or a small dose. say 20 grains, of bromide of sodium may be used with advantage for a time.

Insomnia caused by pain will usually subside when the cause is removed, hence the cause of the pain must be ascertained and removed if possible. It is seldom that insomnia from this cause is complained of, as the patient is more apt to complain of the pain as a more prominent symptom. Stomach and intestinal fermentation is a frequent cause of insomnia, as well as some other nervous disorders, and should not be overlooked as a possible cause in any given case. Here great attention should be given to diet, avoiding sweets, pastries, late suppers, and rich or highly seasoned food and insisting on proper mastication. Bichloride of mercury, $^1/_{60}$ of a grain. before each meal, and a five grain dose of salol, or salol and subgallate of bismuth, after each meal, are often most helpful. In certain cases sodium salicylate and sodium benzoate, five grains each, taken with a large glass of water two hours after each meal, will do better, while occasionally β-naphthol, five grains after each meal, will correct the trouble. These patients also may need the same encouragement and mental suggestion as others. In addition to the hydrotherapeutic measures already described, a cool or in some cases a hot compress over the abdomen when going to bed may be most useful.

Rather rare cases of insomnia from nervous shock or psychic insult occur. A woman was awakened at 1:10 a. m. and saw a burglar pointing a revolver at her head. She awoke at that same time nightly and did not sleep again till morning. Recovery took place after twelve years of this habit, by changing to new surroundings where she had no way of telling what time it was. Tonic methods of treatment were used, but no hypnotics.

Insomnia from new or uncomfortable surroundings may generally be overcome by a little patience and such exercise in the open air as to induce physical fatigue, but in certain cases it will require some hypnotic or sedative, like ten grains of trional or twenty grains of bromide of sodium and a teaspoonful of elixir of valerianate of ammonium at night while the patient is getting adjusted to the new environment, or it may be that a change of environment may be demanded. For instance, some persons do not seem able to adjust themselves to working nights and sleeping days.

Sleeplessness as a complication of acute infectious diseases may occasionally require attention other than the care of the accompanying pain or fever, in which case it is not wise to use the synthetic hypnotics, such as sulphonal, etc., as they are disposed to check the secretion of the kidneys and add to the general depression of the system, effects especially to be avoided in such conditions. The bromides of sodium and ammonium, and a pill of camphor, hyoscyamus, and valerian are not open to such objections. Hydrotherapeutic methods also should be used.

In melancholia and acute mania, when sleep must be secured at all hazards, the prolonged warm bath and the warm sheet pack are most useful and may be frequently repeated. I have kept a patient with acute mania in a sheet pack more than half the time for the first three or four days with most gratifying results. When hypnotics are used in these cases some very positive medication is required. A hypodermic of hyoscine hydrobromide or duboisine, $^1/_{100}$ of a grain, possibly repeated in two to four hours, at times acts very well, hyoscine being rather more trustworthy than duboisine. Paraldehyde also is a reliable hypnotic in mania, and does not seem to leave a depression or disturbance of digestion. In melancholia a dose containing bromide of sodium, twenty grains, and fluid extract of ergot, ten drops, midway between meals and at bedtime, often does excellent work. Morphine as a rule should be avoided in these cases.

A certain number of persons do not sleep just because they don't and do not expect to; in other words, a mental suggestion inhibits the sleep process. Such patients will frequently get no sleep from almost lethal doses of chloral or other hypnotics, and will be uninfluenced by large doses of morphine. It will be evident that hypnotics are of no value in these cases, and if any medicine is given a placebo acts just as well, especially if the proper mental impression can accompany it. Here every effort and device may be necessary to bring about a properly expectant state of mind. Positive mental suggestion should be used, and perhaps in rare cases hypnotism. The warm bath, a half hour hot foot bath, and ice bag to the spine, and a sheet pack may be used in turn as one after the other may cease to induce the necessary mental suggestion of expectation to sleep. We must always have some other or new treatment to fall back on. Here also electricity and massage, as before mentioned, may be useful. Various and divers devices or methods may be employed to influence the mental state, and it is this class of patients who avail themselves of the methods which Wordsworth immortalized, such as " Counting sheep jump over a stone wall," etc. It matters little which method is used, so long as it makes the patient concentrate attention on some indifferent or insignificant object, and I have seen as good results from the patient's staring steadily at a door knob or a mark on the wall as from any method of the kind. These cases require much patience and frequent new devices, but after a time the habit of sleep comes back to stay.

A Few General Remarks.—Improvement of general tone and correcting evils of physique or environment are essential and of first importance. Out door exercise and hydrotherapy stand next in the proper treatment. The mildest hypnotic which will accomplish the result is the best, and great care should be exercised not to try to cure a case of insomnia by a plan of medication which may leave the patient a slave to the opium habit or some other nearly as bad. It is better to change the remedy every third or fourth night; at all events frequent changes in the hypnotic help to prevent too much reliance being placed on any one drug, thereby helping to avoid drug habits.

(*To be concluded.*)

Correspondence.

LETTER FROM TORONTO.

Toronto University.—The Toronto General Hospital.—The Western Hospital.—The Consumption of Spirits in Canada.—The Canadian Medical Association.

TORONTO, *October* 22, 1904.

The Medical Faculty of Toronto University opened its second session after amalgamation with Trinity Medical College on the evening of the 3d of October, when Professor J. Algernon Temple delivered the opening lecture. He took occasion on behalf of his colleagues with whom he was formerly associated on the staff of Trinity Medical College to express satisfaction at the prevailing conditions with regard to medical education in this city. The staff of the medical faculty now consists of at least sixty members in addition to those associated in teaching arts' subjects, chemistry, physics, biology, and physiology. There are between six hundred and seven hundred medical students in attendance and the freshman class, which numbers nearly 170, is the largest in Canada. There has been established a new B. and P. course, which will enable those students who so desire it to secure the degrees of B. A. and M. B. in six years. This is probably the first step toward a compulsory B. A. before admission to the study of medicine, which, in view of the very large influx in the first year, may shortly become a necessity. For the first time in the history of Toronto medicine, a postgraduate course was held during the past summer. It proved successful and will be continued and perfected from year to year. Along with this a fifth year course was inaugurated and provision has been made for research work, through the generosity of one of the members of the board of governors of the Toronto General Hospital. This will perpetuate the Dean Reeve scholarship. Added to this, the medical faculty will shortly be better equipped for clinical teaching. Mr. Cawthra Mulock, of Toronto, has given $100,000 to the Toronto General Hospital for the purposes of a new up to date outdoor department, on the understanding that it shall be used for clinical teaching. All this gives to the outlook of Toronto medicine a most promising future.

On the evening of the 21st of October the annual graduating exercises in connection with the Toronto General Hospital Training School for Nurses were held, when some thirty-two nurses received their diplomas, the largest class since the establishment of the training school, in 1881. Miss Snively, the superintendent of the training school, in presenting the thirty-third annual report, stated that during the past year 625 applications for admission had been received. Of these applicants, forty-two were accepted on probation, and twenty-seven were enrolled as nurses. At the present time this hospital has four probationers, seventy-six undergraduates, and seven graduate nurses, making a total of eighty-seven, which constitutes the nursing staff of the hospital. Since the establishment of the training school 407 nurses have been trained, and of those who have been graduated this year, eighteen have accepted hospital positions in other cities. The address on behalf of the medical and surgical staff was delivered by Dr. Fred. LeM. Grasett. Sir William Meredith, chancellor of the University of Toronto, presented the diplomas, while Dr. Charles O'Reilly, the medical superintendent of the hospital, presented the prizes.

The authorities of the Western Hospital, Toronto, began the use of tents in April, 1900, and at the present time have six tents in service. The capacity of these tents is forty beds, most of which are in constant use, the patients ranging from thirteen years of age to well up in the sixties. Both medical and surgical cases are thus treated, and among the former are found cases of pneumonia, rheumatism, and phthisis. In nearly all cases the patients speak of this plan of treatment with the greatest approval.

From the reports of the Inland Revenue Department for the last fiscal year it would appear that the consumption of spirituous and malt liquors is on the increase in the Dominion. The amount consumed during the past fiscal year amounted to 5,343,954 gallons of spirits and 27,608,518 gallons of beer. The first gives an average of 0.958 gallon per head of the population, which is the largest consumption on record since 1885, when the amount reached 1.126 gallon per head of population. The consumption of beer gives an average of 4.918 gallons per head of population, the largest on record except that for the year 1902, when it reached 5.102 per head. The average since 1869 was 3.182 gallons. The consumption of wines remains about the same, 0.96 gallon per head. The average quantity of tobacco used per head per year has been 2.178 pounds for thirty-five years. Last year it reached 2.765, the largest on record.

The thirty-eighth annual meeting of the Canadian Medical Association will take place in Halifax, N. S., in 1905, the annual meetings of the Maritime Medical Association and the Medical Society of Nova Scotia participating. It will convene under the following officers: President, Dr. John Stewart, of Halifax; vice-presidents, Dr. McLaren, Dr. J. B. Black, Dr. A. B. Atherton, Dr. Joseph E. Dube, Dr. H. Meek, Dr. W. S. England, Dr. H. C. Wilson, and Dr. R. E. Walker, of the respective Provinces of Prince Edward Island, Nova Scotia, New Brunswick, Quebec, Ontario, Manitoba, the Northwest Territories, and British Columbia; local secretaries, Dr. H. D. Johnson, Dr. G. C. Jones, Dr. T. D. Walker, Dr. J. D. Cameron, Dr. Stuart, Dr. Popham, Dr. Hewittson, and Dr. Monro, of Charlottetown, Halifax, St. John, Montreal, Palmerston, Ont., Winnipeg, Pincher Creek, N. W. T., and British Columbia; treasurer, Dr. H. Beaumont Small, of Ottawa; general secretary, Dr. George Elliott, of Toronto; executive council, Dr. G. M. Campbell, Dr. James Roas, and Dr. C. D. Murray, all of Halifax. The Canadian Medical Association and the British Medical Association will hold a joint meeting in Toronto in 1906.

Therapeutical Notes.

Hypopepsia.—*Revue française de médecine et de chirurgie*, for September 19, 1904, states that Robin prescribes small doses of potassium salts in this condition. His favorite formula is:

℞ Potassium nitrate } of each.........5 centigrammes
Potassium sulphate } (¾ grain);
Powdered ipecac........1 centigramme ($^3/_{20}$ grain);
Sodium bicarbonate...30 centigrammes (4½ grains).

M. For one capsule; give after each meal.

Infection After Operation for Cataract.—*Médecine orientale*, for September 25, 1904, states that Bourgeois, of Rheims, has used subconjunctival injections of mercury cyanide in infection after cataract operations, using about 7 minims of a solution of 1 to 1,000, and, by following this up with the classical instillations of atropine and massage with mercurial belladonna ointments, has saved the eyes of six patients since 1898.

Tetanus.—Hodson, formerly resident physician of the Kasr-el-Aini Hospital of Cairo, Egypt, bleeds to the extent of a pint in this disease and then gives an injection of two quarts of physiological salt solution fortified with two and a quarter ounces of brandy. In 3 cases, Hodson had immediate cessation of spasm, but one proved fatal. *Semaine médicale*, for September 28, 1904, states that the last was one of destructive compound fracture of the lower limbs.

On Subcutaneous Injections of Saline Solution in Various Psychoses.—Dr. B. S. Greidenberg, according to *Journal of Mental Pathology*, Vol. VI, Nos. 1 and 2, in his report to the Ninth Medical Congress, St. Petersburg, stated that he had experimented on 36 cases, 20 of which were in women. The forms of the psychoses were principally of maniacal nature. Eight of the entire number comprised cases of melancholia, catatonia, general paralysis, primary dementia, and acute febrile asthenia. A normal saline solution was used and each patient had some fifteen injections. The injections were given in increasing doses, beginning with 250 c.c. and ending with 1500 c.c. From these experiments the author drew the following conclusions: Serotherapy seemed to be indicated in the treatment of psychoses. The subcutaneous method seemed to be the most preferable one. The action of these injections was sedative. Psychomotor excitation was decreased, the appetite was increased, and the desire for sleep was restored. In many instances the action of the injection supplanted that of a prolonged warm bath. Saline solutions were indicated principally in cases of acute infectious conditions and in autointoxication. The particular indications for injections in such conditions were: psychomotor excitation, insomnia, and loss of appetite. The patients readily submitted to the operation and the after effects were nil. Antisepsis should be observed in performing the operation.

Treatment of Scarlatina.—Carrière, in *Nord médical*, for October 1, 1904, in an article with this title, gives several prescriptions designed to meet symptoms. He recommends vaporization in the sickroom of:

℞ Carbolic acid..............................200 parts;
Tincture of eucalyptus.................... 50 parts;
Alcohol ....250 parts.

M. Tablespoonful in a pint of boiling water.

The intestine should be rendered aseptic:

℞ Benzonaphthol ....2½ grammes (37½ grains);
Ammoniated glycerrhizin.....1 gramme (15 grains);
Distilled water............150 grammes (5 ounces).

M. One to six tablespoonfuls daily.

The skin should be kept clean by warm, soap baths, the vulva washed with Labarraque's solution, and the rectum sterilized with:

℞ Neutral quinine hydrochloride...........½ gramme (7½ grains);
Cacao butter...................a sufficient quantity.

M. For one suppository.

Where there is much diarrhœa, Carrière advises against too radical treatment. He gives:

℞ Bismuth salicylate } of each.........10 centigrammes
Benzonaphthol } (1½ grain) for each year of age;
Paregoric ....3 drops for each year;
Saccharin ....5 centigrammes (¾ grain);
Syrup of quince...........150 grammes (5 ounces);
Water ....70 grammes ($2^1/_3$ ounces).

M. Give the whole during twenty-four hours.

Where there is adynamia, artificial serum may be injected, mustard baths given, and the following administered internally:

℞ Ammonium acetate.................50 centigrammes (7½ grains) for each year;
Hoffman's anodyne............5 drops for each year;
Simple syrup..............20 grammes ($^2/_3$ ounce);
Distilled water..........100 grammes ($3^1/_3$ ounces).

M. Teaspoonful four times daily.

Albuminuria. Carrière treats with strontium lactate and tannic acid.

℞ Strontium lactate.....20 centigrammes (3 grains) for each year (4 grammes, or 1 drachm, for an adult);
Mucilage of Irish moss....120 grammes (4 ounces).

M. To be taken in the twenty-four hours.

℞ Tannic acid...........10 centigrammes (1½ grain) for each year.

M. Dispense in capsules, or administer in honey.

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MEDICAL PRACTICE IN THE PHILIPPINES.

The regulations promulgated by the Philippine Commission seem to be well calculated to secure for the islands an efficient body of medical practitioners. Four forms of certificate of registration are issued to persons who pass a satisfactory examination before the Board of Medical Examiners—one for a doctor of medicine, one for a licentiate in medicine, one for a "cirujano ministrante," and one for a midwife. A licensed "cirujano ministrante," one who has studied medicine in St. Thomas University, Manila, for a period of not less than two years, may be registered in a manner empowering him to practise in communities remote from any doctor or licentiate, upon his passing a satisfactory examination before the board of health of the Province in which he intends to practise. This particular form of practitioner is probably destined to disappear before many more years have passed, and we may suppose that the licentiate also will eventually cease to exist. Then the entire medical profession of the archipelago will consist of graduates.

According to our information, which extends to September 19th, there are 223 registered physicians resident in the city of Manila. Sixty-two of them, if we may judge by their names, either are Americans or have gone to the Philippines in consequence of the American sovereignty of the islands. Thirteen of these appear to have some connection with the board of health, nine are medical officers of the army, and a few others are connected with the laboratories, with the constabulary, or with one or another of the consulates. In round numbers, therefore, we may say that 200 physicians are engaged in private practice in the city, about a quarter of whom are Americans. We have no data bearing upon the degree of success met with by these American physicians, but it seems safe to assume that they are meeting with a fair share of patronage. At all events their compatriots are likely to form a larger and larger proportion of the population as time goes on, and by reason of that probability we should judge that they would eventually get the better part of the remunerative practice. We would suggest, however, to American physicians who may be intending to try the Philippines as a field of practice that it will not be wise to rely solely on their fellow Americans as patients. They would do well, therefore, to acquire a good speaking knowledge of the Spanish language, a tongue that is not likely to fall into disuse for a long time to come.

SODIUM SULPHITE AS A PRESERVATIVE OF MEAT.

In a pamphlet entitled *Sulphurous Acid and Sulphites as Food Preservatives,* recently published in Chicago, C. E. Calm, Ph. D., a member of the American Chemical Society and of the Society of Chemical Industry, recounts the varied uses of those agents as preservatives, but deals chiefly with the employment of sodium sulphite as a preservative of meat, which he has made the subject of an experimental study. Besides pointing to the time-honored use of sulphurous acid and its compounds as preservatives, he states that those compounds exist naturally in such articles of food as meat, vegetables, etc., implying apparently that this fact attests the harmlessness of sulphites added artificially. That is to say, he seems to argue that the natural presence of sulphites in meat, for example, makes it evident that still larger amounts of them may be added without detriment to the consumers of the meat. This style of argument appears hardly compatible with his complaint that certain other observers have based their belief in the harmfulness of such additions on experiments in which they fed animals for protracted periods on meat to which undue amounts of the preservative had been added.

It may be that we have no great reason to complain if our meat is preserved with sodium sulphite used in such amounts as Dr. Calm declares are employed in actual practice. Much as we should prefer to have our meat find its way to the cook without having been subjected to any sort of preserving process, we must recognize the difficulty, amounting practically to impossibility, of securing that desirable state of things on the large scale that present conditions require. It may be that Dr. Calm is quite right in his contention that the preservation of meat with sodium sulphite as actually practised is not fraught with danger to the health of the consumers, but we should be better satisfied if only unassailable arguments were presented in support of the contention.

MEDICAL EDUCATION IN OHIO.

The *Columbus Medical Journal* seems to have succeeded, or to be on the point of succeeding, in bringing about a change in the State requirements for the license to practise which, while in no wise lowering the standard, will probably retain in the State a great number of students who would otherwise seek their education elsewhere, and at the same time make a larger proportion of the graduates of the medical schools of the State eligible to such State examinations as that of New York. The change in question involves a rearrangement of the relations between the literary course and that taken at the medical school.

In its September issue our contemporary pointed out the need of some such change, showing the disadvantages of the plan then in force, whereby it took eight years to obtain both the degree in arts and that in medicine, whereas the period might reasonably be shortened by a year by the medical schools being empowered to credit a literary graduate with one year's work in his medical course or by the literary colleges counting a year's medical study in lieu of their own senior year. It is the first of these plans that seems to have been settled upon, for in its October number the *Journal* announces a proposed amendment to the rules and regulations of the State Board of Medical Registration and Examination containing this clause: "Provided that advanced standing may be given only to persons who furnish evidence of graduation from a registered literary college course, which course shall include 280 hours of human anatomy and other sciences sufficient to make it the full equivalent of the first medical year."

It certainly seems to us desirable to enable a young man to obtain both a literary and a medical degree in a shorter time than eight years. Practically the object will perhaps be quite as well attained by the provision embodied in this amendment as by the other plan, that of counting the first medical year as the senior literary year, though the administration of the amended rule will probably throw on the examiners a greater burden of discretion than has heretofore rested on them. We presume the proposed amendment will be adopted, and we congratulate our contemporary on the part it has taken in furthering such a consummation.

JOINT COMPLICATIONS OF ERYSIPELAS.

One not infrequently sees an arthritis develop during the progress, and especially toward the end, of erysipelas, to which process little attention has been given up to the present time. However, in 1901 two theses were published respectively in Lyons and in Paris, by Dr. Jorrot and Dr. Baude, in which a very complete study of the subject has been made.

Jorrot, in the first place, established two classes of articular complications of erysipelas, the first corresponding to what one calls infectious pseudorheumatism, while the second includes arthropathies. The pseudorheumatism may present four different forms, namely, the arthralgic, plastic, serous polyarthritic, and suppurating arthritis. The first of these is the least important, but is the most frequent and is, so to speak, only transitory. It is characterized by excessively severe pain in some cases, accompanied by considerable difficulty in movement, but hardly ever leaves any deformity of the affected joint. The patient gets well in a few days without any apparent effect on the general health.

The clinical picture is simple. An erysipelas has run a normal evolution, the patient is convalescent, and desquamation is advanced, when suddenly the temperature goes up and several joints become tender and swollen. The patient is obliged to take to his bed. During the next day and those following the pain diminishes, while other joints become involved, only to return rapidly to their normal condition. In short, one is dealing with simple arthralgia without any importance other than the pain.

In the plastic form the process is an inflammation of the tendon sheaths, which is frequently met with in gonorrhœa and may be observed in erysipelas. From the beginning of the erysipelas, a continued sharp pain is present in a joint and the skin becomes hot and tense, although its color is not notably changed. The region is tumefied and the limb is held in a vicious attitude that cannot be corrected without causing intolerable suffering. These symptoms generally run their course without fever, in contradistinction to those of arthralgia, which are nearly always accompanied with a high temperature. From recorded cases it may be affirmed with absolute certainty that one is dealing with an erysipelatous pseudorheumatism, which, like the gonorrhœal type, does not limit itself to the joints, but invades the tendon sheaths as well. This form of arthritis may last a long time after the cure of the erysipelas; in one case reported it remained for two weeks, and in another nearly two months and a half. Its début is synchronous with that of the erysipelas and may even precede the latter. This form is quite susceptible to cure, with *restitutio ad integrum*, since the patients recover the use of the affected limb and present no deformity.

Serous polyarthritis is met with in from one to two per cent. of cases. The date of the onset of the process is variable, but in the cases collected by Jorrot it was between the fourth and the eleventh day after the appearance of the skin lesions, more frequently at the tenth or eleventh day and coinciding with the desquamation. This form appears to prefer the large joints, such as the knee, elbow, and wrist, but it may also involve the smaller ones. The temperature varies between 102° and 104° F. The color of the skin does not change in any marked degree; it is tense, hot, and smooth. A slight tumefaction of the joint occurs, and sometimes palpation reveals an accumulation of fluid in the joint. Tumefaction and pain appear to be the two most important diagnostic elements. The latter is usually not very intense, and consists in a feeling of constraint and functional impotence of the joint. This variety of arthritis is of short duration; in two or three days the fluid collection disappears, but the patient is still troubled by arthralgia of the neighboring joints, preceding or accompanying the polyarthritis. The heart is rarely involved, but it may be the seat of pain, as commonly occurs in other types of generalized erythema.

Purulent arthritis is quite frequent, but it possesses all the characters of a true infectious type. It appears during the progress of or convalescence from erysipelas and is accompanied by serious phenomena, such as high temperature, gastric disturbance, typhoid tongue, etc. It appears from the reported cases that the localization of this form of arthritis is nearly always the same. In facial erysipelas the knee is the joint usually involved. Several joints may be attacked at the same time, and in order of frequency one finds the shoulder, the radiocarpal, and the tibiotarsal joints. This form of arthritis is, without any doubt, one of the most serious complications of erysipelas, because its final outcome, even after surgical interference, is far from favorable. Gosselin has said that, like all infectious arthritides, the puerperal, for example, it produces serious changes in the joints and general phenomena quite severe enough to threaten the life of the patient.

Arthritis arising in a joint near an erysipelatous process in the skin often resembles the latter form. When the erysipelas is seated over a joint, a more or less abundant serous exudate may sometimes be seen to take place in the joint. It is often in very small amount, but it may be sufficient to distend the capsule considerably. In this case we have a hydrarthrosis. At other times only a plastic synovitis will be found, resulting in some stiffness of the joint; and lastly, suppuration constitutes a third complication, the most important of all as regards the functions of the joint. As has been pointed out by Tillmann, this form of arthritis occurs early, that is to say, within a few days after the appearance of the erysipelas. The progress is most acute, with a character of special malignancy, and the joint may suppurate in its totality. The cartilage may be entirely destroyed, the synovial membrane presents vegetating granulations, and in ten days' time the joint is relaxed and crepitus is present. The surrounding soft structures, muscles and tendons, become involved in the suppuration, and purulent tracts form, with ultimate necrosis of the tendons.

Such are the articular complications of erysipelas. One point of considerable interest remains to be discussed; it relates to the relations existing between infectious rheumatism and acute articular rheumatism, especially concerning the serous polyarthritis of the third type here described. According to Richardière, who has more particularly studied the question, this type of arthritis, which has the characters of acute articular rheumatism, is in reality under the subjection of this disease; they have only occasional relations with erysipelas. They arise upon the occasion of this affection, as they might after exposure to cold or a traumatism. Erysipelas, as Charcot pointed out, simply wakes up the diathesis and determines one of its manifestations.

Another peculiar fact is that in all cases these arthritides have been controlled by sodium salicylate, and under the influence of this salt the pain disappears rapidly, the circumarticular and articular tumefaction subsides within one or two days, and the temperature drops to normal. The effect of the medicine is certain, because as soon as its use is stopped the joints again become involved.

This opinion has been the subject of much discussion, and even now it is difficult to pronounce upon its identity. At any rate, the reports of cases tend to show that medical treatment has a very marked influence on these polyarthritides and that the use of sodium salicylate, salol, salophene, or antipyrine is indicated, although a close watch must be kept over the joint lesions in order to act surgically should articular suppuration arise.

Charles Greene Cumston.

SMALLPOX IN ILLINOIS.

In a circular dated October 15th, addressed to the local health authorities of Illinois, the energetic State Board of Health calls attention to the fact that smallpox exists in many parts of the State, and urges strenuous efforts to check the spread of the disease, failing which, says the appeal, "it will prevail throughout the winter to a frightful extent and with great mortality."

QUACKS IN NEW YORK.

According to a statement made recently by Mr. C. S. Andrews, counsel for the Medical Society of the County of New York, there are 20,000 quacks in New York city. There are fewer than 6,000 regularly qualified practitioners, so it would seem that even subtracting the fifty-five per cent. of the population, now receiving free treatment at our various charitable institutions, every regular physician could make an excellent living, if the unlicensed competition was stamped out.

A POSSIBLY UNSUSPECTED SOURCE OF TUBERCULOUS OR OTHER INFECTION.

A possible cause of tuberculous contagion which we do not recall having seen mentioned is the not uncommon practice of cooling the food of an infant, fed with a spoon, by blowing on each spoonful. Even when the nurse or attendant is beyond the suspicion of tuberculosis or other infectious disease, the practice is unsanitary and should be forbidden.

Obituary.

MORDECAI PRICE, M. D.,

OF PHILADELPHIA.

Dr. Mordecai Price was found dead in his consulting room early on Saturday morning, October 29th. On Friday night Dr. Price had assisted Dr. J. C. Deal at an operation, and he died, apparently, as soon as he returned from the house of the patient. His body was found lying in front of his desk, with his instrument case, and his gloves in his hands. Dr. Price was born in Hagerstown, Md., in 1844. He came to Philadelphia as a young man and received his preliminary education at Kennett Square; later he went to Fort Edward Institute, Fort Edward, N. Y. He graduated from the medical department of the University of Pennsylvania in 1869 and was immediately elected resident physician in the Philadelphia Dispensary with Dr. Edward Maris. Dr. Price was an able general practitioner, but about fourteen years ago he began to devote his attention to abdominal surgery, and, in connection with his brother Joseph, founded a private hospital. He has contributed many short articles to the periodical literature upon these subjects.

Dr. Price was an active member of the Philadelphia County Medical Society, where he was known as a forceful and interesting debater. He was also a member of the Medical Society of the State of Pennsylvania and of the American Medical Association.

News Items.

Society Meetings for the Coming Week:

MONDAY, *November 7th.*—New York Academy of Sciences (Section in Biology); German Medical Society of the City of New York; Morrisania Medical Society, New York (private); Brooklyn Anatomical and Surgical Society (private); Corning, N. Y., Academy of Medicine; Utica, N. Y., Medical Library Association; Philadelphia Academy of Surgery; Philadelphia Academy of Natural Sciences (Biological and Microscopical Section); Boston Society for Medical Observation; St. Albans, Vt., Medical Association; Providence, R. I., Medical Association; Hartford, Conn., Medical Society; South Pittsburgh, Pa., Medical Society; Chicago Medical Society.

TUESDAY, *November 8th.*—New York Academy of Medicine (Section in Genitourinary Surgery); New York Medical Union (private); New York Obstetrical Society (private); Buffalo Academy of Medicine (Section in Medicine); Kings County, N. Y., Medical Association; Rome, N. Y., Medical Society; Medical Society of the County of Rensselaer, N. Y.; Newark, N. J., Medical Association (private); Philadelphia County Medical Society, Kensington Branch; Pædiatric Society of Philadelphia; Academy of Natural Sciences (Section in Botany); Trenton, N. J., Medical Association; Clinical Society of the Elizabeth, N. J., General Hospital and Dispensary; Northwestern Medical Society of Philadelphia; Practitioners' Club, Richmond, Ky.; Richmond, Va., Academy of Medicine and Surgery.

WEDNESDAY, *November 9th.*—New York Pathological Society; New York Surgical Society; American Microscopical Society of the City of New York; Society of the Alumni of the City (Charity) Hospital; Society for Medical Progress, New York; Medical Society of the Borough of the Bronx, New York; Philadelphia County Medical Society; Pittsfield, Mass., Medical Association (private); Lenox Medical and Surgical Society (private).

THURSDAY, *November 10th.*—New York Academy of Medicine (Section in Pædiatrics); New York Academy of Medicine (Section in Otology); Society of Medical Jurisprudence and State Medicine, New York; Brooklyn Pathological Society; Medical Society of the County of Cayuga, N. Y.; Philadelphia County Medical Society, North Branch; Pathological Society of Philadelphia; South Boston, Mass., Medical Club (private); Church Hill Medical Society of Richmond, Va.

FRIDAY, *November 11th.*—New York Academy of Medicine (Section in Neurology); Yorkville Medical Association, New York (private); Brooklyn Dermatological and Genitourinary Society (private); German Medical Society of Brooklyn; Medical Society of the Town of Saugerties, N. Y.; Northern Medical Association, Philadelphia.

SATURDAY, *November 12th.*—Obstetrical Society of Boston (private); Philadelphia County Medical Society, Western Branch.

NEW YORK.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending October 29, 1904:

	October 22.		October 29.	
	Cases.	Deaths.	Cases.	Deaths.
Measles	57	3	55	7
Diphtheria and croup	317	30	299	17
Scarlet fever	123	7	165	8
Smallpox	..	..	..	..
Chickenpox	41	..	77	..
Tuberculosis	237	143	358	133
Typhoid fever	125	17	114	16
Cerebrospinal meningitis	..	18	..	10
	1.000	218	1,068	191

Kings County Hospital.—Dr. Joseph Walsh, formerly interne of St. Mary's Hospital, Brooklyn, and subsequently in the Government service at Washington, has been appointed superintendent of the Kings County Hospital.

Academy of Medicine Welcomes Sir Felix Semon.—The section in laryngology of the academy gave a dinner to Sir Felix Semon at Delmonico's on Tuesday evening, November 1st, at 7.30.

Dr. and Mrs. Thomas R. French, of 150 Joralemon Street, Brooklyn, N. Y., gave a largely attended reception to Sir Felix Semon last evening, from nine to eleven o'clock.

Home for Destitute Crippled Children.—Mrs. A. L. Erlanger, president of the New York Home for Destitute Crippled Children, has received $50 from an anonymous contributor. The annual meeting of this organization has been postponed to Friday, December 1st, that it may be held in the new home, 141 West Sixty-first Street.

Long Island Hospital Medical College.—Two interesting nominations have been made by the faculty of the Long Island Medical College, for additions to its own force. Dr. H. Beeckman Delatour, of Eighth Avenue, Brooklyn, has been named for professor of clinical surgery and Dr. L. A. W. Alleman, of Montague Street, for professor of ophthalmology. As a matter of formality these nominations will pass under the attention of the regents of the hospital at their next meeting. It is expected that the election of the physicians to these posts will be a mere formal matter when it reaches the regents.

Japanese Commission Is Pleased With the New York Health Department.—Professor Takamine, Professor Tanna, and Dr. Sato, of the Imperial University of Tokio, who have been traveling over the large cities of the world, inspecting health departments, were conducted through New York's building on November 1st by Commissioner Darlington, and expressed the opinion that the only department to be compared with New York's was that of Hamburg, Germany, where, however, red tape prevented the attainment of the magnificent result we are accustomed to.

New Hospital Planned for Coney Island.—If Charities Commissioner Tully can get $100,000 to carry out his plans, a new hospital will be built on Coney Island. He hopes for a fully equipped building that will meet all the needs of the resort. The present Emergency Hospital is in a building leased for three years more at a rental of $2,500 yearly. In the six year term $15,000 will have been paid, or 15 per cent. on the sum asked for a building for the city. At the rate medical cases are increasing the Emergency Hospital will be inadequate by next summer to meet the demands upon it.

Changes of Address.—Dr. Claude L. Wheeler, of the *New York Medical Journal and Philadelphia Medical Journal,* to 316 West Ninety-fifth Street; Dr. Ira S. Wile, to 601 West One Hundred and Forty-eighth Street, New York; Dr. C. F. J. Laase, to 223 East Fifty-seventh Street, New York; Dr. Daniel Lewis, to 616 Madison Avenue, New York; Dr. Mark I. Knapp, to 136 West Seventy-eighth Street, New York; Dr. A. M. Fernandez Ybarra, to 302 Second Avenue, New York; Dr. Edmund W. Holmes, to 2035 Chestnut Street, Philadelphia; Dr. George Elliott, to 203 Beverley Street, Toronto, Canada.

Hospital Book and Newspaper Society.—The Hospital Book and Newspaper Society is in need of $500 to continue the work during the coming season. Subscriptions and donations may be sent to Mrs. J. O. Green, treasurer, No. 9 Lexington Avenue.

Dr. William E. Bullard, formerly of New York, who has been for the past five winters resident physician at the Colonial Hotel, Nassau, Bahamas, has been offered and has accepted a similar position at Palm Beach, Florida, where he will be after December 23rd.

City's Lowest Death Rate.—Dr. Thomas F. Darlington, Health Commissioner, announced at the Board of Health on October 31st that the death rate for the week ending the previous Saturday was the lowest ever recorded in the history of Greater New York. It was 14.46. The number of deaths was 678 and the basis of estimated population 3,570,012.

Pavilion to Be Added to Nassau Hospital.—The $1,000 given by George Arents, Sr., to the Nassau Hospital, at Mineola, where his son, George Arents, Jr., has been under treatment since he was injured in the automobile race on October 8th, has been made the nucleus of a fund for the erection of a private patients' pavilion. Miss Perrigo, the superintendent of the hospital, says the proposed pavilion will cost $25,000, and in addition to Mr. Arents's gift she has already received promises of contributions amounting to $2,260.

German Hospital, Brooklyn.—*The Volunteer Organist,* a powerful melodrama of the popular class, is to be played at the Grand Opera House, Brooklyn, on November 9th, 10th, and 11th, for the benefit of this institution. The box office is now open.

During the year which is drawing to a close the number of patients at the hospital has materially increased. Especially is this true as far as the non-paying patients are concerned, no one being turned away from the hospital doors as long as there is room inside, neither color nor creed being a bar to admission. It is, therefore, necessary for the committee to make unusual efforts this year to secure sufficient funds to meet the increased expenditures, and it is hoped that the benefit performance arranged will be attended by all the friends of this most worthy institution. The trustees of the institution are carrying a mortgage on their property, and the interest charges on this borrowed money have led some of the directors to express a desire that something be done to lower the mortgage, and in this way to reduce the annual expenditures. Every dollar that can be raised by this benefit, therefore, above the actual running expenses estimated for next year, will be set aside to this mortgage account.

Academy of Medicine.—The section on Pædiatrics will meet on Thursday, November 10th, at 8.15 p. m. Order: Presentation of Cases, A Case of Prolapse of Anus Cured by Operation, by Alfred S. Taylor, M. D.; Paper: Clinical Experience with Antitoxine, by Louis Fischer, M. D. Discussion by Dr. Berg, Dr. Biggs, Dr. Northrup, Dr. Park, Dr. Studdiford, and others. David Bovaird, Jr., M. D., chairman; Matthias Nicoll, Jr., M. D., secretary, 124 East Sixtieth Street.

The section on Otology will also meet on Thursday evening. Order: Presentation of Cases, by Robert Lewis, Jr., M. D.; Exhibition of Specimens and New Instruments; Paper: The Value of the Present Quantitative Tests for the Hearing, with demonstration of a new apparatus, by William Schier Bryant, M. D. Discussion. Herman Knapp, M. D., chairman; Thomas J. Harris, M. D., secretary, 117 East Fortieth Street.

The anniversary meeting of the academy will be held on Thursday, November 3rd, at 8.15 p. m. The anniversary discourse will be delivered by William H. Thomson, M. D., LL. D., in Hosack Hall, 17 West Forty-third Street. Andrew H. Smith, M. D., president; Virgil P. Gibney, M. D., M. Allen Starr, M. D., W. Gilman Thompson, M. D., vice-presidents; John H. Huddleston, M. D., secretary.

PHILADELPHIA.

Diphtheria in Allentown.—An epidemic of diphtheria is reported from Allentown, Pa. There have been about 100 cases and thirty-one deaths.

Episcopal Hospital.—Dr. Richard H. Harte has resigned his position as attending surgeon to the Episcopal Hospital. The vacancy on the surgical staff will be filled by the board of managers at their meeting on November 24th.

German Hospital Training School for Nurses.—At the graduation exercises of the Training School for Nurses of the German Hospital, held October 25th, diplomas were awarded to Miss Lottie M. Woerner and Miss Minnie M. Greene. The diplomas were presented by the president of the hospital, H. Hessenbruch.

Closure of a Public School on Account of Diphtheria.—The Heston Public School at Fifty-fourth Street and Lansdowne Avenue was closed on October 20th until October 31st, on account of the development of fifteen cases of diphtheria among the pupils. The cases are mild in character.

Physician Fined for Assault and Battery.—Dr. Caspar Morris was found guilty of assault and battery on William H. Smedley and fined $400.00 and costs, on October 24th. Dr. Morris had passed his deposit book to the receiving teller in the rooms of the Girard Trust Company ahead of Mr. Smedley, who was in line, in April, 1904, when Mr. Smedley remonstrated. Dr. Morris struck Mr. Smedley three times, breaking his nose.

The Health of the City.—The following contagious diseases have been reported for the week ending October 22nd:

	Cases.	Deaths.
Malarial fever	3	1
Typhoid fever	62	10
Scarlet fever	75	1
Smallpox	0	1
Chickenpox	22	0
Diphtheria	96	10
Measles	26	0
Whooping cough	2	0
Tuberculosis of the lungs	65	47
Pneumonia	15	28
Erysipelas	4	1

The total death rate for the week was 380 in an estimated population of 1,408,154, corresponding to an annual death rate of 14.03 per 1,000 population. There have been the following deaths from other contagious diseases: Tuberculosis, other than of the lungs, 6; tetanus, 1; diarrhœa and enteritis under two years, 23. On Tuesday, the 18th, the maximum temperature was 80°; an unusual degree of heat for the season of the year. On the 21st, 2.21 inches of rain fell.

State Registration of Nurses.—The graduate nurses of the State of Pennsylvania held a well attended meeting, lasting three days, October 26th, 27th, and 28th, at the College of Physicians, Philadelphia. Nurses from many distant parts of the State attended. The principles of registration and central examinations were advocated and widespread support promised. Dr. Henry Bates, president of the State Board of Medical Examiners, assured the Graduate Nurses' Association of the earnest cooperation of the medical profession in this movement.

The University of Pennsylvania Medical Society.—At the meeting of the University of Pennsylvania Medical Society, held on October 28th, postponed from October 21st, Dr. W. B. Stanton read a paper on the Treatment of Tuberculosis at the Free Hospital for Poor Consumptives at White Haven, Pa. At the business meeting it was voted to continue the society and to hold five meetings a year, in November, January, February, March, and April. The following officers were elected for the coming year: President, Dr. Charles H. Frazier; vice-presidents, Dr. A. O. J. Kelly and Dr. Henry D. Jump; secretary, Dr. H. C. Wood, Jr.

Meeting of the Philosophical Society.—At the meeting of the Philosophical Society on October 21st, Dr. George T. Moore, chief of the laboratory of plant physiology of the United States Department of Agriculture, spoke on copper as a bactericide. Dr. Moore described his experimental work which was inspired by complaints of contamination of the drinking water from New England towns. Among those who took part in the discussion following the reading of the paper were: Dr. Edward Martin, director of the Department of Public Health and Charities; Dr. A. C. Abbott, president of the board of health; Dr. Mary E. Pennington; Professor Haupt; and Mr. Maignen, the inventor of the Maignen filter. For a statement of the position of the department of health and charities of Philadelphia on the use of copper the reader is referred to our issue of October 1, 1904, page 652.

Alvarenga Prize of the College of Physicians of Philadelphia.—The College of Physicians of Philadelphia announces that the next award of the Alvarenga prize, being the income for one year of the bequest of the late Señor Alvarenga, and amounting to about $180.00, will be made on July 14, 1905, provided that an essay deemed by the committee of award to be worthy of the prize shall have been offered. Essays intended for competition may be upon any subject in medicine, but must not have been published, and must be received by the secretary of the college on or before May 1, 1905. Each essay must be sent without signature, but must be plainly marked with a motto and be accompanied by a sealed envelope having on its outside the motto of the paper and within the name and address of the author. It is a condition of competition that the successful essay or a copy of it shall remain in possession of the college; other essays will be returned upon application within three months after the award. The Alvarenga prize for 1904 was not awarded, no essay of sufficient merit, in the judgment of the committee, having been submitted in competition. Thomas R. Neilson, M. D., secretary.

The Relation of the Physician to the Bureau of Health.—At the meeting of the Philadelphia County Medical Society, held on October 26th, Dr. S. W. Newmayer, an assistant medical inspector, read a paper entitled The Relation of the Physician to the Bureau of Health, in which he made a plea for the cooperation of the family physician with the bureau. In the discussion which followed, the presentation of the paper, considerable hostility to the methods of the assistant medical inspectors was developed. Dr. Edward Martin, the director of the department of health and charities, said that it was his intention to have his department serve the profession in the city and he asked for criticisms. Among a body of 50 assistant medical inspectors, choose them as carefully as possible, there are of necessity some of unpleasant personality and others devoid of tact, so that friction between the official and the family doctor is bound to occur. On the other hand, among the family physicians there are some who are careless in their methods of diagnosis and of isolation of patients with contagious disease. He believes that if a practitioner has any cause for complaint, on account of the behavior of any assistant medical inspector, if he would make that complaint personally to the chief of the bureau of health or the chief medical inspector, the condition of affairs would be remedied by one of those officials, who certainly do not wish to foster strife between their subordinates and the members of the medical profession. The assistant medical inspectors must exist in a city the size of Philadelphia, and it is incumbent upon the profession, as well as on the officials, to work for that harmony without which chaos will result.

GENERAL

The Typhoid Fever Epidemic in Buffalo is reported to be dying out, only one case having been reported on October 28th.

The General Hospital Society is to receive $20,000 through a bequest of the late Miss Isaphene Hillhouse, of New Haven.

Medical History of Virginia.—Dr. R. M. Slaughter has been appointed by the Medical Society of Virginia to edit and prepare for publication the prize manuscripts, that have long awaited publication, on the medical history of the State.

Dr. E. A. Kennedy, of Milwaukee, was assaulted on October 22nd, beaten into unconsciousness, and robbed by footpads.

The Dobbs Ferry, N. Y., Hospital, which now averages 11 patients daily as against 3 one year ago, is making an appeal for funds.

Typhoid Fever at Menominee, Mich.—A severe epidemic of typhoid fever is reported from Menominee, and is believed to be due to impure water from Green Bay.

Smallpox in Battle Creek, Mich.—There are twenty cases of smallpox reported from Battle Creek, and the hospital accommodation is said to be inadequate.

Supreme Physician of the Foresters.—Dr. S. T. Richmond, of Chicago, has been elected Supreme Physician of the United Order of Foresters, to succeed the late Dr. R. J. Ough.

Trachoma in Trenton, N. J.—It is reported that an epidemic of trachoma, or pink eye, as it is called in the despatches, has broken out at the Lawrenceville Preparatory School at Trenton.

Robbery of a Surgeon, while Operating.—While Dr. Robert Abbe was performing an operation in St. Luke's Hospital on October 22nd, a watch, valued at $500, and $150 in cash were taken from his waistcoat, which he had hung in an adjoining room.

The Southern Medical Association, after a two days' session at Elkton, Ky., during which many interesting papers were read and discussed, adjourned on October 27th, to meet next year at Russellville. The following officers were elected: President, Dr. R. W. Frey, of Trenton; vice-presidents, Dr. Grace and Dr. Tyler, of Todd County; secretary-treasurer, Dr. R. L. Boyd, of Pembroke.

Brockton, Mass., Hospital.—The Brockton hospital corporation authorized its executive committee on October 27th to borrow $10,000 for the building of the proposed heating and power plant, and to mortgage property for that purpose if necessary. The president was authorized to appoint a committee of six to try to raise the money by other means.

University of Buffalo.—The senior class of '05 of the medical department of the University of Buffalo have elected these officers: President, John M. Flannery; vice-president, E. Ross Linklater; secretary, Herman W. Johnson; treasurer, Albert Mott; marshal, Victor Pchellas; theatre committee, Hadley T. Cannon and Descum McKenney.

Proposed Nurses' Home in Chicago.—A movement that is arousing considerable interest among the graduate nurses, of Chicago, at present is the Graduate Nurses' National Home and Protective Association. The society is to be incorporated during the winter. The object is the founding of a home for its members, where they can live if totally disabled from the practice of their profession. Ultimately the association hopes and expects to build four homes in different parts of the United States.

New Jersey State Hospital.—A competitive examination to fill the vacancy now existing of fourth assistant physician in the medical staff of the New Jersey State Hospital at Trenton, will be held during the latter part of November or early in December of this year. Candidates must be regular graduates of medicine, unmarried, and above the age of twenty-five years. Address the Medical Director, New Jersey State Hospital, Trenton, N. J., for further particulars in regard to time and place of meeting for holding the examination.

Lutheran Hospital Training School, St. Louis.—The 1904 class of nurses, graduated on October 25th, is as follows: Marie Albrecht, of Cape Girardeau, Mo.; Dorothy Boyer, of Ste. Genevieve, Mo.; Marion Burns, of Harvel, Ill.; Johanna Struve, of St. Louis; Lydia Boettcher, of Jericho Springs, Mo.; Amalia Bauer, of Detroit, Mich.; Pauline Mertz, of Mascoutah, Ill.; Alice Harris, of Bradford, Pa.; Lucy Prather, of Sullivan, Mo.; Bertha Heuermann, of Battle Creek, Neb.; Sarah Reitz, of Millstadt, Ill.; Jeanie Calder, of Invengorden, Scotland, and May Rowley, of Maryville, Mo.

An Interesting Medicolegal Point.—How far does the power of the State board of medical examiners extend, is a question to be decided in Judge Williams's court in the case of Arthur Budau, who sues J. V. Stevens and other members of the State board, charging them with having overridden their discretionary powers in not allowing him to practise medicine in Wisconsin. Budau is from Milwaukee, and graduated from the Harvey School at Chicago. The medical board contends that the school was not up to the standard required by the State laws of Wisconsin. Unless malice on the part of the board can be proved, there is no ground for action whatever, as the licensing of physicians rests with the board. The attorney for Budau avers that at least the State board can be compelled to give the client an examination.

Health Report of Boston, for the Week Ending October 29th.—The number of deaths reported to the Boston board of health for the week is 197, as against 159 the corresponding week last year, showing an increase of 38 deaths, and making the death rate for the week 16.73. The number of cases and deaths from infectious diseases is as follows: Diphtheria, 67 cases, 5 deaths; scarlatina, 18 cases, no deaths; typhoid fever, 27 cases, 4 deaths; measles, 6 cases, no deaths; tuberculosis, 46 cases, 23 deaths; smallpox, no cases, no deaths. The deaths from pneumonia were 21, whooping cough none, heart disease 19, bronchitis 8, marasmus 7. There were 9 deaths from violent causes. The number of children who died under one year was 47; under five years, 55; persons over sixty years, 37; deaths in public institutions, 57.

Organization of the State Antituberculosis Society of Indiana.—On October 14th, Dr. S. A. Knopf, of New York, made an address on Pulmonary Tuberculosis at the Claypool Hotel, Indianapolis, under the auspices of the National Underwriters' Association. At its close, members of the Indianapolis Medical Society, at the distinguished lecturer's suggestion, organized the Indiana Antituberculosis Society, the officers of which, so far as elected, are: Secretary and treasurer, Dr. Theodore Potter; directors, Norman Peck, Dr. J. N. Hurty, Albert Metzger, John C. Dean, George Shirts, of Noblesville; Dr. W. J. Fairfield, of Anderson; George McCoy, of Columbus; Dr. G. W. Bence, of Newcastle, and Dr. Hugh Cowling, of Muncie. Dr. W. H. Wishard, who acted as chairman during the lecture, is to be chairman of the society till a president is regularly elected. The value of pure air, to be found as plentifully in Indiana as elsewhere, was the text of Dr. Knopf's address.

Curious Misunderstanding Regarding Freedmen's Hospital, Washington.—The Secretary of the Interior has been deluged lately with applications from all parts of the country from persons who desire to secure the post of surgeon in chief at Freedmen's Hospital, in Washington. Just why a number of people should simultaneously conceive a burning desire to preside over the destinies of this particular institution is what is puzzling the officials of the Interior Department. Secretary Hitchcock has no solution to offer for the problem, either. He is as much surprised at the number of applications received and the suddenness of their appearance as any one can be. There is no vacancy in the staff of Freedmen's Hospital and no prospect of any. Secretary Hitchcock states he is at a loss to know why any one should make application for this position at this time. He states that he is very well pleased with the work of Dr. Warfield, the present surgeon in chief at the hospital, and has received no intimation from Dr. Warfield that he intends to resign. The applications are coming in each day, however, and those in authority are looking for some reason therefor.

Statement of Mortality in Chicago, Ill., for the Week Ending October 29, 1904, compared with the preceding week and with the corresponding week of 1903. Death rates computed on United States Census Bureau's estimated midyear populations of 1,932,315 for 1904 and of 1,783,880 for 1903:

	Oct. 29, 1904.	Oct. 22, 1904.	Oct. 31, 1903.
Total deaths, all causes	412	462	473
Annual death rate per 1,000	11.14	12.50	13.14
By sexes—			
Males	228	261	282
Females	184	201	191
By ages—			
Under 1 year	74	75	84
Between 1 and 5 years	28	32	34
Over 60 years	77	108	96
Important causes of death—			
Acute intestinal diseases	34	48	30
Apoplexy	17	13	10
Bright's disease	32	43	37
Bronchitis	12	13	14
Consumption	54	54	52
Cancer	16	28	21
Convulsions	9	5	9
Diphtheria	10	13	19
Heart diseases	30	38	48
Influenza	..	2	..
Measles	1	..	1
Nervous diseases	14	17	23
Pneumonia	32	31	63
Scarlet fever	..	2	..
Suicide	6	8	11
Smallpox	..	2	..
Typhoid fever	7	5	7
Violence (other than suicide)	33	34	25
Whooping cough	2	2	1
All other causes	101	104	102

Public health conditions continue to be satisfactory. The death rate of the week, 11.14 per 1,000 of population, is one of the lowest ever recorded. Nearly all the important causes of death show reductions. The hospital population is the lowest in four weeks, and both typhoid fever and pneumonia patients are fewer than at the close of any week since the first of the month. The sanitary condition of the public water supply is ideal; on three days of the week the results of the chemical examinations corresponded with the standard of twelve miles off-shore water.

A Public Announcement by the Chicago Department of Health.—The Chicago department of health has sent out the following letter to the citizens of Chicago:

To employers, parents, guardians, school teachers (public, parochial, and private), and to all others whom it may concern:

You are legally authorized and empowered, by city ordinance, to secure protection against smallpox of every person in your care, custody, or control. The substance of the ordinance is as follows:

Every person having the care, custody, or control of any minor or other individual shall cause and procure such individual to be so promptly, frequently and effectively vaccinated that such minor or individual shall not take, or be liable to take, the smallpox.—(*Revised Code of Chicago,* 1897. Sec. 1083.)

It is notorious that smallpox exists, not only in this community, but widely throughout the United States, and that it is being continually introduced into the city; whereby every unvaccinated or imperfectly vaccinated individual is exposed to the danger of catching the disease.

It is equally notorious that every case of smallpox in Chicago, for many years, has been among the unvaccinated or the imperfectly vaccinated.

Not one case of smallpox has occurred among those recently and effectively vaccinated.

It is to the interest of every employer to cause and procure the prompt and effective vaccination of every one in his employ, and the law gives him the authority, and makes it his duty, so to do.

This gives the employer the means of protecting his own business, as well as the business of the city generally, against the injury which always follows the appearance of smallpox among employees.

Employers have the legal right, and it is their duty, to make recent vaccination a condition of further employment whenever smallpox appears in the community to the extent that it now does.

Because fully one third of the cases of smallpox in Chicago are among children under six years of age, and because the younger the child the more severe and the more deadly the disease, it is a humane, as well as a legal, duty of all parents, guardians, and teachers to secure that protection of their charges against smallpox, which proper vaccination only and surely gives.

Proper vaccination, as perfected by this department, causes little or no suffering, disability from work, or disfiguring scars.

Severe inflammation, swollen glands, high fever, and other objectionable results of old time vaccination are never caused by the operation when performed under the rules of the department—copies of which may be obtained in room 4, city hall.

Secure the vaccination of all in your care, custody, or control. Get vaccinated yourself.

(Signed) Arthur R. Reynolds,
October, 1904. Commissioner of Health.

When to Vaccinate.—Healthy infants should be vaccinated within the first three months after birth, or as soon thereafter as practicable.

Children should be revaccinated between 12 and 15 years of age.

Every one should be revaccinated whenever smallpox breaks out in the community. If it doesn't take, the individual will not take the disease. If it does take, it is proof positive that the individual would have taken smallpox if exposed to the contagion.

Pith of Current Literature.

BERLINER KLINISCHE WOCHENSCHRIFT.

September 12, 1904.

1. A New Case of Norwegian Itch, By T. DE AMICIS.
2. Hereditary Syphilis in the Second Generation, By C. BOECK.
3. Skin Syphilides, By E. FINGER.
4. Some Cutaneous Manifestations of Chronic Appendicitis, By FOURNIER.
5. Persistent Scarlatiniform Leprosy with Consecutive Miliary Atrophy, By H. HALLOPEAU.
6. Some of My Opinions, By J. HUTCHINSON.
7. Infectious and Toxic Hæmatogenous Dermatoses, By JADASSOHN.
8. Secondary Syphilis with Severe Eye Involvement, By G. PERNET.
9. Eosin-Light Treatment, By F. J. PICK, and K. ASAHI.
10. Leucoderma Syphiliticum, By G. THIBIERGE.
11. Treatment of Children with Hereditary Syphilis, By E. WELANDER.

[This entire number is given over to the International Dermatological Congress].

2. **Hereditary Syphilis.**—Boeck describes in detail four cases in which children were born with syphilis, of mothers who were themselves the victims of hereditary syphilis. In some of the cases, the child, the mother, and the grandmother were under observation. In one of the cases, two healthy children were born first and then a luetic child, although reinfection of the mother could be excluded in all the cases. Boeck says that in these cases paternal infection plays practically no rôle whatever.

3. **Cutaneous Syphilis.**—Finger gives the description of the varieties, the distribution and grouping of the various forms of syphilis of the skin. He says that in acute cases of the disease, he has not infrequently observed erythema, multiforme and nodosum.

4. **Cutaneous Eruptions in Chronic Appendicitis.**—Fournier expresses the French view of the origin of chronic appendicitis in which the ingestion of meat is said to have an important influence. He describes various forms of skin disease which accompany this disease, rendering the diagnosis, or the road to diagnosis, easier. Such are certain forms of eczema, yellow tinting of the skin, sweating over the entire right side of the body, etc.

6. **Some Opinions of Hutchinson.**—Hutchinson writes an aphoristic paper in which he gives his well known views on syphilis and a number of other skin diseases. He concludes with his credo: 1. The eating of badly cured fish is the one sole cause of leprosy, and it is not contagious either by touch, breath, or insect bites. 2. Leprosy may be communicated from one individual to another (a) by an infant taking milk from a leprous mother, or (b) by a person eating food which has been contaminated by a leper's hands. 3. Gonorrhœa in all its stages is best treated by the use of parasiticide injections. The more acute the symptoms, the more necesary is the chloride of zinc injection. 4. Gonorrhœal rheumatism occurs almost solely in those who inherit gout and it is common in different communities in ratio to the prevalence of gout. 5. Alopecia areata is usually a sequel of ringworm. 6. When tertiary syphilis simulates lupus, it is because the patient is both tuberculous and syphilitic. 7. The various forms of malignant disease, carcinoma, sarcoma, etc., are not dependent upon parasitic invasion, but upon hereditary tendencies of tissue which are essentially the same for all, while the different forms are transmutable in inheritance. 8. The prolonged use of arsenic internally or externally, conduces to the formation of malignant growths.

8. **Secondary Syphilis.**—Pernet narrates the case of a young woman who, with her secondary manifestations of syphilis, developed a severe syphilitic central retinitis and hypopion. In the vitreous of both eyes, large exudates appeared. Eventually sight was restored after long, appropriate treatment.

10. **Syphilitic Leucoderma.**—Thibierge asserts that leucoderma does not represent a primary syphilide, but is always developed at the site of a former roseola which becomes pigmented. He therefore suggests the name pigmentary metasyphilide.

11. **Treatment of Syphilitic Children.**—Welander calls attention to the fact that since 1817, all persons in Sweden afflicted with venereal disease are given free hospital service. This has conduced materially to a diminution in the incidence of these diseases. For children with hereditary syphilis he recommends a respiration cure by means of mercury bags. He also advises their removal to an institution for two to four years, the results being much better there than in the children's homes.

September 19, 1904.

1. Pseudotetany and Transition Forms Between Real and Hysterical Tetany (*To be continued*), By H. CURSHMANN.
2. Muscular Attachments Between the Auricle and Ventricle of the Heart, By K. BRAUENIG.
3. Rabies or Inoculated Modified Rabies? By L. HEYDENREICH.
4. Cancroid with Lupus, By M. LEVY-DORN.
5. Infectious and Toxic Hæmatogenous Dermatoses (*Concluded*), By JADASSOHN.

2. **Muscular Attachments of Auricle and Ventricle.**—Brauenig says that the musculature of the auricle and ventricle is not entirely separated in mammals, but is similar to that found in reptiles and amphibians. The attachment between these two parts of the heart consists of a distinct muscular band arising from the sæptum, and of a muscular band imbedded in connective tissue. These are constant in the human species.

3. **Rabies.**—Heydenreich describes minutely the cases of two persons who were bitten by a young dog. The one who was not treated by the Pasteur method remained entirely well, while the one who was inoculated, developed various paralyses, a psychosis, and finally idiocy. The

author believes that the dog was not suffering from rabies, and states that, in his opinion, the symptoms in the second case were due to a sudden cessation of the Pasteur treatment.

September 26, 1904.

1. Does Increased Molecular Concentration in Renal Disease Always Justify the Conclusion That Both Kidneys Are Involved? By A. LOEB, and C. ADRIAN.
2. Thermopalpatory Examination of the Temperature of the External Auditory Canal, By E. SOMMER.
3. Chronic Recurrent Spasm of the Pylorus as an Indication for Operation, By H. SCHIROKAUER.
4. Constitution of Diphtheria Toxine, By R. P. VON CALCAR.
5. Pseudotetany and Transition Forms Between Genuine and Hysterical Tetany (*Concluded*), By H. CURSCHMANN.

1. **The Blood in Renal Disease.**—Loeb and Adrian have made experiments which show that disease of one kidney alone can produce an increase in the molecular concentration of the blood. In the case described and from which the deductions were made, there was a carcinoma of one kidney which had given rise to several metastases in the abdominal organs.

2. **Temperature of the Auditory Canal.**—Sommer has shown the truth of Winternitz's observation that the temperature of the external auditory canal varies within considerable limits at different times in the same individual. The temperature on the two sides is not the same, that on the left side being usually higher than that on the right, although the variations are about the same on the two sides. The author suggests that the somewhat higher temperature on the left side may be due to the more active function of the left side of the brain.

3. **Recurrent Spasm of the Pylorus.**—Schirokauer says that acid gastrorrhœa is due to some disturbance of gastric motility, and that this condition and spasm of the pylorus give rise to certain clinical manifestations. The patients are usually nervous, and suffer at intervals from severe gastric pain with copious vomiting. Neurasthenia is often present. Gastroenterostomy is sometimes efficacious in bringing about a cure and the author advises it as a rational procedure.

ZENTRALBLATT FUER GYNAEKOLOGIE.

September 24, 1904.

1. The Suprapubic Horizontal Incision, By O. VERTES.
2. The Permeability of the Tubes to Fluids Injected Into the Uterus, By W. THORN.
3. Injuries to the Genital Tract in Coitus, By J. SAKS.

1. **Suprapubic Horizontal Incision.**—Vertes cordially commends the Pfannenstiel incision for laparotomy, having employed it in 150 cases, thirty-six of these being cases of carcinoma operated by Wertheim's method (removal of the iliac glands). He finds it easy, the liability to hernia is decidedly diminished, the mortality is probably less than that of the median incision, and the only contraindications are those in which the vaginal route can be used, large fibroids, and cases in which there are many adhesions.

2. **Permeability of the Tubes.**—Thorn finds a result of his experiments on the cadaver and on the living body, that irrigating fluid permitted to run into the uterus, never enters the tube or the peritoneal cavity, if the cervical canal is sufficiently dilated, if the irrigation is slowly done, and if the surplus fluid is allowed to flow away. He assumes that the anatomical relations are normal. His conclusions are diametrically opposed to those of Zweifel and Doederlein.

3. **Injury in Coitus.**—Saks reports four cases, in two of which the hymen was found to be bleeding profusely after the first coitus, and in two others in which the vagina was torn. In one of the latter cases, a multipara, the injury was received while the patient was in the sitting posture, fully dressed.

October 1, 1904.

1. Lumbar Puncture in Eclampsia, By B. KROENIG.
2. Diagnosis in the First Half of Pregnancy, By O. SARWEY.
3. Vagitus Uterinus, By R. CRENTZ.

1. **Lumbar Puncture in Eclampsia.**—Kroenig says that the blood pressure in eclampsia is greater than in any other condition, except contracted kidney. He came upon the idea, from the consideration of this fact, that possibly the pressure of the cerebrospinal fluid within the arachnoid space was also increased. In three cases in which he carefully measured the pressure and withdrew cerebrospinal fluid until it reached the normal of 120 mm., the patients began to improve generally in from six to seven hours. He says that it is impossible to judge of the curative value of the procedure from these few cases, for one was a postpartum eclampsia, while in the other two vaginal Cæsarean section was performed.

2. **Diagnosis in the First Half of Pregnancy.**—Sarwey says that the fœtal heart sounds can be heard throughout the entire fourth and fifth months of pregnancy, from the end of the twelfth to thirteenth weeks. This is from seven to eight weeks earlier than is commonly assumed to be the case. This is no exception, but is regularly the case. This fact offers a certain means of diagnosis at a period of pregnancy in which mistakes are often made.

RIFORMA MEDICA.

October 4, 1904.

1. On Staphylolysin, By ROCCO CAMPANA.
2. On the Treatment of Cutaneous Tuberculosis, By ROBERTO CAMPANA.
3. On Sterilization of Catgut by Claudius's Method in Surgical Practice, By ALDO CERNESSI.
4. The Collapse of the Veins in Relation to the Pressure in the Right Auricle (*Concluded*), By ALFONSO ABBRUZZETTI.

1. **Staphylolysin.**—Campana's investigations on staphylolysin confirm the findings of Neisser. Weichselbaum, van Durme, etc. He found that staphylolysin appears in cultures of staphylococci after the tenth day, and continues to be present

for a number of days. In some instances staphylolysin was found after the twenty-ninth day. The older cultures were found to possess greater hæmolytic powers than the more recent ones. The hæmolytic power of the cultures was increased when the germ which had been used for the preparation of the culture had passed twice through rabbits, instead of only once. The hæmolytic power of these cultures varied also according to the virulence of the germ.

2. **Tuberculosis of the Skin.**—Campana reports a number of instructive cases of lupus. In one case the patient was apparently cured, but on returning home was infected with erysipelas. She had a recurrence of lupus after the erysipelas had disappeared. In three other cases there was a complicating septic rhinitis, which induced the recrudescence of the lupus after it had been apparently cured. In one of these cases the exudate from the nose was so dense that it formed grumous masses and membranous deposits. A recurrence of lupus threatened, and only vigorous medication was able to avert it. The treatment consisted in the introduction into the nasal cavity of strips of gauze moistened with a solution of silver nitrate, protargol, and tachiol (silver fluoride). Equal parts of these substances in water were applied on cylindrical pledgets of gauze, introduced daily. Gradually the septic condition of the nasal cavity disappeared and the skin lesions could be treated by caustics, antiseptics, and drying ointments. The author found that tuberculin aided in the resolution of infiltrated areas and diminished the tendency of the tuberculous lesions to spread, while it produced a certain degree of local immunity in the adjacent parts.

3. **Claudius's Method of Sterilizing Catgut.**—Cernezzi recommends very highly the method of sterilizing catgut devised by Claudius. He found it to be simple, trustworthy, and economical, and to render the catgut pliable and absorbable without injuring its powers of resistance. The method of Claudius consists of winding the catgut upon ordinary glass spools, and then immersing it in a solution, consisting of one part of iodine, one part of potassium iodide, and one hundred parts of water. The catgut is allowed to remain in this solution for eight days, when it is ready for use. Before using, it is softened in a weak solution of carbolic acid or in any indifferent and sterile fluid. The catgut thus prepared possesses antiseptic properties, and is perfectly sterile. It is also very elastic and malleable, and becomes black without swelling. The threads of catgut become so dense and uniform after this treatment that a secondary infection through the hands of the operator is not probable. This catgut is absorbed as easily as that prepared with the ordinary methods.

GAZZETTA DEGLI OSPEDALI E DELLE CLINICHE.

September 18, 1904.

1. Resection of the Uteroovarian Sympathetic, By GIOVANNI FUSCHINI.
2. Dermoid Cysts, By GUIDO CAVAZZANI.
3. Intraperitoneal Crural Cystocele. Resection. Recovery, By ALDO CERNEZZI.
4. On the Mechanism of Inflammation, By ANTONIO CURCI.
5. On Theocine, By R. MASSALONGO, and G. ZAMBELI.
6. Tachiol in Chronic Purulent Otitis Media, By DE SIMONI.

1. **Uteroovarian Sympathectomy.**—Fuschini states that the operation of removing the uteroovarian sympathetic plexus was devised by Giuseppe Ruggi in 1889. This observer found that many women continued to complain of disturbances in their generative organs in spite of the fact that they had been subjected to various operations for the relief of these conditions. For these cases he recommended and performed the operation of removing a portion of the uteroovarian plexus of nerves. The rationality of the treatment, and the good results obtained by this method impelled the present author to try Ruggi's method in a series of patients in whom such operations were indicated. He reports three cases in which the method in question gave very good results. In addition, he operated on a number of other patients in the same manner, either with or without removing the annexa on one or both sides of the uterus, but sparing them whenever possible, on account of the pathological conditions present in these parts. Resection of the sympathetic nerve plexus, which controls the uterus and ovaries, was substituted for the removal of these organs wherever possible, and the results, while very good thus far, could not be definitely judged on account of the short time which had elapsed since the operations. The author recommends the more extensive performance of the operation described, instead of the numerous ovariectomies so much in vogue with some surgeons.

October 2, 1904.

1. A Case of Multiple Sclerosis Following Whooping Cough, By GUSTAVO MINCIOTTI.
2. On the Diagnostic Value of Tuberculin, By CARLO MASTRI.
3. Claudius's Method for Catgut, By FRANCESCO FABRIS.
4. A Case of Gaseous Multiple Cysts of the Intestines, the Mesentery, and the Parietal Peritonæum, By CARLO VISCONTINI.
5. Symptomatic Treatment in Tuberculosis and Maragliano's Serum, By BRUNO DOMENICO.
6. The Use of Iodine in the Treatment of Anthrax, By GIUSEPPE DI DESTRI

2. **Diagnostic Value of Tuberculin.**—Mastri concludes from a study of this question that all reports confirm the diagnostic value of tuberculin injections. These injections may be practised, with due precaution both in private patients and in hospital work. While one cannot say with certainty that tuberculin injections are absolutely devoid of danger, still the element of danger is so insignificant that this method deserves to be widely used. The reaction is less well marked in advanced lesions than in the early stages.

3. **Claudius's Method for Catgut.**—Fabris strongly endorses the method of Claudius for sterilizing catgut, described in an abstract of *Riforma Medica*, October 4, 1904, and gives the results of his experiments which were designed to test the efficiency of this mode of treating catgut.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

October 29, 1904.

1. The Invasion of Carcinoma Cervicis Uteri Into the Surrounding Tissues and Its Bearing on the More Radical Operations for That Disease (*To be continued*), By John A. Sampson.
2. Treatment of Cold Abscesses and Sinuses in Tuberculous Bone Lesions, By V. P. Gibney.
3. How the General Practitioner Should Treat Gonorrhœa, By Ferd. C. Valentine, and Terry M. Townsend.
4. Operative Treatment of the Faucial Tonsils, with a View to the Prevention of Cervical Adenitis, By Robert C. Myles.
5. Hæmorrhage of the Larynx, By John Edwin Rhodes.
6. Poisoning by Wood Alcohol. Cases of Death and Blindness from Columbian Spirits and Other Methylated Preparations, By Frank Buller, and Casey A. Wood.
7. Deviation of the Nasal Sæptum, A Review of 100 Operations for Corrections, By Joseph S. Gibb.
8. Tuberculous Laryngitis: Prognosis and Treatment, By Thomas J. Gallaher.
9. Intubation, Including a Report of Some Unusual Cases, By Burt Russell Shurly.
10. A Chief Predisposing Cause of Appendicitis. A Preliminary Note with a Few Laboratory Experiments, By George Rubin.

1. See this *Journal*, Vol. LXXX, page 90.

2. **Treatment of Cold Abscesses.**—Gibney reviews briefly the various treatments that have been proposed for the treatment of cold abscesses and reports a few cases in order to illustrate the evils of free incision and drainage. His conclusions are summarized thus: 1. Early recognition of cold abscesses will enable one to dissipate or to nip them in the bud. 2. When they are present at the time the cases come under observation, treat them with indifference so long as they do not interfere with the proper adjustment of good protection apparatus. 3. If they are in the way, or if they show a disposition to burrow and encroach on parts that it is desirable to keep free from such invasion, resort to aspiration and make cultures in order to determine their virulency. 4. If aspiration fails, rely on incisions under rigid asepsis, large enough only to permit evacuation of the contents and refrain from the introduction of chemicals. Close the wound by suture under the same rigid asepsis. 5. When the abscess lies directly over a bone focus that can be easily reached, make the incision large enough to remove the focus, and at the same time permit removal by curette or scissors of the lining of the sac and all necrotic tissue contiguous thereto. Then close aseptically, employing drainage for not over forty-eight hours. 6. If longer drainage is demanded, devise means by which asepsis in dressings may be continued indefinitely, and look on a mixed infection as a calamity. 7. Sinuses should be well drained, the foci on which they depend should be treated, if involving joints, by perfect and long continued immobilization, with due regard to fresh air and a high state of nutrition.

3. **Gonorrhœa.** — Valentine and Townsend urge that general practitioners should undertake the treatment of gonorrhœa and not turn their cases over to the specialist. The authors favor the irrigation method and outline a plan of treatment for a case of simple acute anterior specific urethritis. Usually ten days' treatment, which will require seventeen irrigations, will bring the discharge to an end. If the discharge continues or returns the irrigations must be renewed. Permanganate of potassium is the drug best suited for making the irrigation solutions.

6. **Poisoning by Wood Alcohol.**—Buller and Wood conclude their paper, which has run through several numbers, with a table giving the chief points of interest exhibited by fifty-four cases of wood alcohol poisoning, which they have been able to collect. The authors suggest that either the manufacture and sale of deodorized wood spirit should be absolutely prohibited, or, as in Germany and Great Britain, an untaxed ethyl alcohol, rendered undrinkable by the addition of pyroligneous spirit, mineral oil, naphthalin, or some other nauseous compound, should be employed in the arts in the place of Columbian spirits and similar dangerous preparations.

10. **Appendicular Inflammation.**—Rubin believes that many such cases have the following origin: Gases retained in the large bowel cause ballooning of the cæcum and stretching of the appendicular orifice. This permits fæcal masses to fall into the appendix. When the gases are expelled the appendix contracts, its circulation is interfered with, and inflammation results.

BOSTON MEDICAL AND SURGICAL JOURNAL.

October 27, 1904.

1. Hæmaturia Due to Bilharzia Hæmatobia, with the Report of a Case, By Richard Frothingham O'Neil.
2. Some Observations on the Occurrence of Broadbent's Sign, By Alice Weld Tallant.
3. The Mamma, Its Physiological Purposes, By Thomas H. Manley.

1. **Bilharzia Hæmatobia.**—O'Neil reports one case of Bilharzia disease. Five other cases have been recorded as occurring in the United States. Of these six cases four were imported and two seem to have originated in this country. Abstracts of all the cases are given. The author considers formally the geographical distribution, pathology, ætiology, symptomatology, diagnosis, and treatment of the disease. The parasites and the ova obtained from the author's case are pictured.

2. **Broadbent's Sign.**—Tallant has attempted to establish the value of Broadbent's sign (the systolic retraction of the lower ribs in the left back) as a diagnostic system of adherent pericardium. She looked for the phenomenon in 130 miscellaneous cases of disease. In twenty of the cases examined there was slight retraction of an interspace without any tug on the ribs, in twenty-five cases there was marked retraction, usually with a distinct tug on one or more ribs. These forty-five cases are classified and tabulated. The warrantable conclusions seem to be: (1) That retractions in the left back are much more common than is generally supposed, although it is probable that they would be noted

more frequently if always looked for during the routine physical examination. (2) That systolic retraction of a marked degree, similar to and often identical with that described by Broadbent, is found in many cases of cardiac hypertrophy in which there is no other reason to suspect pericardial adhesions. (3) That systolic retraction, more often involving the interspaces only, may be seen in the left back in thin individuals, especially if there is marked emaciation. The reason for many of these retractions is apparently as follows: Since the pericardium is even under normal conditions adherent to the central tendon of the diaphragm, it is conceivable that with each systole there is a slight pull on the diaphragm. Under ordinary circumstances this is not marked enough to be transmitted to the points of attachment of the diaphragm to the chest wall, but if the heart is hypertrophied or acting very vigorously, the pull may be sufficient to be visible externally, while in a thin individual even a slight movement would be more easily perceived.

MEDICAL NEWS.

October 29, 1904.

1. The Treatment of Scarlet Fever with the Moser Antistreptococcus Serum, By Henry L. K. Shaw.
2. A Case of Typhoid Fever with Repeated Chills, By John Howland.
3. Osteoplastic Gastrotomy for Impermeable Cicatrical Stricture of the Œsophagus, By Willy Meyer.
4. The Ætiology of Gastric Hæmorrhage, By F. Gregory Connell.
5. A Series of Nearly Six Hundred Spasms in an Epileptic Without Disturbance of Consciousness in the Intervals, By L. Newmark.
6. The Agnes Memorial Sanatorium, By Carroll E. Edson, and W. H. Bergtold.

1. **The Moser Serum.**—Shaw has watched the effect of the Moser serum in the treatment of scarlet fever in the Annakinderspital in Vienna. The serum is derived from horses who have been inoculated with mixed types of streptococci obtained from scarlet fever patients. Three fever charts are given which seem to show that the serum is fully as much a specific in scarlet fever as is the ordinary antitoxine in diphtheria. At present the serum is not on the market and is obtainable only in Vienna.

2. **Typhoid With Chills.**—Howland reports a case of apparently uncomplicated typhoid fever in which chills were noted between the twentieth and forty-ninth day of the disease to the number of fourteen.

3. **Osteoplastic Gastrotomy.**—Meyer reports a case in which he made an osteoplastic flap in the lower, anterior left chest in an attempt to relieve a stricture of the œsophagus. This he did not succeed in doing. The operation has convinced him, however, of the great value of osteoplastic flaps in cases in which it would otherwise be impossible to reach organs situated in the convexity of the diaphragm.

4. **Gastric Hæmorrhage.**—Connell, for the sake of convenience, divides the causes of hæmorrhage from the stomach into (1) stomachic, (2) extrastomachic and (3) unknown. Ulcer of the stomach gives rise to the greatest number of the hæmorrhages in the first class, cirrhosis of the liver is the most prominent extrastomachic cause. Considerable space is devoted to a discussion of so called idiopathic hæmorrhage.

MEDICAL RECORD.

October 29, 1904.

1. Surgical Reflections on the Diagnosis of Cancer of the Stomach, By Arpad G. Gerster.
2. Conditions Simulating and Mistaken for Acute Appendicitis, By Henry Roth.
3. Some Random Considerations on Tuberculosis, By Augustus A. Eshner.
4. Sterile Water Anæsthesia in the Operative Treatment of Anorectal Disease, with a Summary of Three Hundred and Twenty Cases, By Samuel G. Gant.
5. The Rôle of the Prostate in Affections of the Urinary Tract, By Abr. L. Wolbarst.
6. Music as a Therapeutic Agent, By Francis S. Kennedy.

1. **Cancer of the Stomach.**—Gerster's reflections on cancer of the stomach, as a purely surgical affection, lead him to set forth the following line of reasoning: With our present knowledge a reliable diagnosis of incipient cancer of the stomach is a sheer impossibility. If we wait to operate until the diagnosis is no longer in doubt the time for operating will have past since, at such a stage, the malady is beyond surgical help. It follows therefore that if cancer of the stomach is to be cured by surgical measures operation must be undertaken early. The author therefore concludes that: When in a clearly progressive case of an intractable disorder of the stomach the local and general symptoms, conscientiously collected and weighed, strongly justify the suspicion of cancer, diagnostic laparotomy should be considered not only admissable, but obligatory.

2. **Conditions Simulating Appendicular Inflammation.**—Roth reports in detail nine cases in which the symptoms led to a mistaken diagnosis. The cases, while instructive, do not lend themselves to abstracting.

4. **Sterile Water Anæsthesia.**—Gant describes in detail his method of obtaining local anæsthesia by the hypodermic injection of sterile water. The method is simplicity itself. The only thing necessary is to inject enough sterile water to blanch the tissue in the area of operation. The more or less care used in injecting the water will make the difference between failure and success. The efficiency of the method may be best judged by the extensive use to which it has been put by Dr. Gant. The cases in which he has employed it include radical operations for fissure, ulceration, protruding and non-protruding internal hæmorrhoids, cutaneous and thrombotic external hæmorrhoids, polypi, prolapsus ani, ordinary complete and blind internal and external fistula, and ischiorectal, marginal, and follicular abscesses; excision of perineal cysts, sacral dermoids, and lipomata of the buttocks; removal of foreign bodies beneath the skin and mucosa; division of the sphinc-

ter in constipation, when the muscle was so hypertrophied that divulsion had proved ineffective; fixation of an elongated sigmoid to the anterior abdominal wall; colostomy, and exploratory laparotomy. The objections to the method are practically nil.

AMERICAN MEDICINE.

October 29, 1904.

1. The Domain of Physiology and Its Relations to Medicine, By S. J. Meltzer.
2. Observations Upon Latent and Masked Malarial Infections, with an Analysis of 395 Cases, By Charles F. Craig.
3. Is Not the Treatment of Congenital Clubfoot Begun Too Early? By V. P. Gibney.
4. Indicanuria Complicating Typhoid Fever, By Judson Daland.
5. Angina Pectoris, By John Knott.
6. Modern Medicine, By William B. Ulrich.

2. **Malaria.**—Craig, who is an army surgeon serving at the Government Hospital at San Francisco, has had unusual opportunities for observing malaria in the troops which return from the Philippine Islands. He defines a latent malarial infection as one in which the parasites are demonstrable in the blood of the patient, but in which there are no symptoms which would lead the clinician to suspect malaria. A masked infection is one in which the symptoms are obscured by those of some accompanying disease, or in which the malarial symptoms are atypical in character. The malarial parasite was demonstrated in the blood of 1,267 cases admitted to the hospital. In 395 of these cases, twenty-five per cent., there were either no clinical symptoms of malaria or the symptoms were masked by those of other diseases. The author tabulates and analyzes all the cases of latent and masked infection and concludes that his study affords convincing evidence of the importance of a blood examination as a routine measure in every case of disease.

3. **Congenital Clubfoot.**—Gibney questions the propriety of beginning the treatment of clubfoot before the child is ready to walk. He does not mean by this that absolutely nothing should be done in the way of attempting to correct the deformity before the first eighteen months. It is well known that a certain number of clubfeet, even of moderately high degree, are corrected, fully eighty or ninety per cent. by the mother's hand alone. Such cases may be helped along by the simpler forms of apparatus. The severe forms of treatment, if begun early, are likely to impair the digestion and nutrition and so help to maintain the already too high infant mortality.

5. **Angina Pectoris.**—Knott reports one case of angina pectoris which he has had under daily observation for over seven months. The case was typical and the author has used it as a kind of skeleton framework on which to hang all the various items of information regarding the disease which he has obtained from various sources. The paper therefore is a discussion of angina pectoris rather than the report of one case.

LANCET.

October 15, 1904.

1. Insanity and Epilepsy in Relation to Life Assurance, By Sir W. R. Gowers.
2. Knowledge and the Methods of Reaching It, By P. H. Pye-Smith.
3. The Relations of Therapeutics to Other Sciences in the Nineteenth Century, By O. Liebreich.
4. Abstracts of Introductory Addresses.
5. A Case of Gigantic Renal Calculus, Illustrated with Remarks on Cases Where Renal Stones Form Obvious Tumors, By A. M. Sheild.
6. A Case of Fracture Dislocation of the Cervical Vertebræ, By E. Ringrose.
7. Pulsating Gangrene of the Lung, By J. L. Steven.
8. A Case of Blood Poisoning from Amygdalitis: Comparative Results Obtained from Two Varieties of Antistreptococcic Serum and from Perchloride of Iron, By Sir I. Owen.
9. The Evolution of Man's Diet. V, By H. Campbell.

1. **Life Assurance.**—Gowers does not think that a family history of either insanity or epilepsy or both, as a rule, need alone depress the expectation of life below the average if the proposer is over twenty years of age. The word "alone" limits the statement to lives which are otherwise free from any flaw. In the case of insanity a previous attack should preclude acceptance. Previous attacks of epilepsy are generally equivalent to the present existence of the disease. The danger of suicide is connected with both diseases, but is not important enough to merit practical recognition. General paralysis of the insane should be placed with tabes dorsalis and not with the other forms of insanity.

5. **Renal Calculus.**—Sheild reports the case of a man, aged thirty-nine years, who when first seen was suffering from severe abdominal pain and collapse. He had had attacks of painful hæmaturia for fourteen years. Filling the left flank and loin was a large rounded firm swelling, very tender, and not moving with respiration. At the operation an enormous stone was found in the left kidney, weighing more than a pound. There was a ragged hole in the lower and anterior aspect of the sac through which pus, urine, and small stones had escaped. The whole of the great stone lay in the shell of renal substance under the dome of the diaphragm and protected by the ribs. The inferior part of the tumor, which alone could be felt, was composed of dilated renal calyces containing pus and urinous fluid. The whole kidney was removed and the patient made a good recovery. The stone, when fresh, weighed nineteen ounces, and was five and a half inches long, with a circumference of ten inches at the largest part. In these cases the skiagram when positive is of great value; when negative not absolutely to be relied upon. It is not generally known that renal stones, when large or in great number, may form an abdominal tumor of notable size. The results of nephrolithotomy by the loin are not always encouraging, as septic sinuses may be left. Removal of the disorganized kidney and calculi by an anterior incision is probably the best method. The risk of

lacerating intestines is very great, and the isolation and securing of a satisfactory pedicle often very difficult.

6. **Fracture of the Cervical Vertebræ.**—Ringrose reports the case of a boy, aged fourteen years, who suffered fracture and dislocation of the cervical vertebræ from diving. The x rays showed that a forward displacement had taken place in the lower cervical region, the centre of the body of the fifth cervical vertebra resting on the anterior superior edge of the body of the sixth. The bodies of the fifth and sixth vertebræ were altered from crushing. The cervical curve was greatly increased from the fifth vertebra upwards. The patient complained of headache and pain in the neck, which was rigid and tender. He was unable to move his head, especially from side to side. He refused to remain in the hospital more than three days and later was passed into the militia as sound. The case shows that extensive and persistent injury of the lower cervical vertebræ may occur and produce only few and transient symptoms, the disproportion between the accident and the mischief produced thereby being the converse of what is usually found—viz., slight injury with serious and permanent symptoms.

7. **Pulsating Gangrene of the Lung.**—Steven reports the case of a woman aged thirty-seven years, who when first seen was suffering from acute pneumonia. Gangrene developed at the base of the left lung, and the day before death pulsation was observed in the dull area. The necropsy showed the pulsation to be caused by the intimate relationship of the gangrenous lower lobe of the left lung to the left surface of the pericardial sac. The pericardial wall was distinctly projected inwards and received the systolic shock of the heart, which was thus transmitted to the chest wall through the semifluid contents of the gangrenous cavity. The case was related to pulsating empyema merely by the clinical fact of pulsation. There was no localized bulging of the chest wall, as is seen in empyema. The heart was neither hypertrophied nor fixed, and the left lung was everywhere firmly adherent.

8. **Septic Amygdalitis.**—Sir I. Owen reports the case of a man aged twenty-two years, suffering from a severe amygdalitis and pharyngitis. Although under local treatment the condition of his throat improved, his temperature rose to 104.7° F., and he grew weak, tremulous, and deaf, and began to wander in his mind. Typhoid fever was suspected, but the Widal test was negative. He next developed pain in the right knee, right arm, and left knee, with evidences of fluid effusion in the latter. Bacteriological examination of the blood showed the presence of streptococci. The use of antistreptococcic serum in full doses from the Lister Institute was now begun and continued for three days with no apparent result. Roux's antistreptococcic serum was used for four days (an interval of two days having elapsed from the stoppage of the first serum) and the temperature sank steadily, and the general condition improved markedly. Two large boils next appeared on the back and Roux's serum was again given with great benefit. But beyond a certain point the improvement would not go, and some joint symptoms still persisted. The residual morbid manifestations disappeared rapidly when treatment by full doses of perchloride of iron was commenced, this drug seeming to destroy the residual toxic elements which were not destroyed or neutralized by the antiserum. The medicine was given in the form of the following mixture: 30 minims of tincture of perchloride of iron, with 25 minims of dilute hydrochloric acid, and three grains of sulphate of quinine, to be taken every six hours.

BRITISH MEDICAL JOURNAL.

October 15, 1904.

(Seventy-second Annual Meeting of the British Medical Association.)

Section of Psychological Medicine.

1. Criminal Responsibility, By C. A. Mercier.
2. Criminal Responsibility and Degeneracy, By E. S. Talbot.
3. Heredity in Its Biological and Psychiatrical Aspects, By J. Beard.
4. The Problem of Heredity from the Psychiatrical Aspect, By W. König.
5. Dementia Præcox, By C. Norman.
6. The Cure of Quackery, By A. T. Schofield.
7. Lesions of the Posterior Columns in General Paralysis, By D. Orr, and R. G. Rows.
8. How to Take a Family History, By E. S. Pasmore.

Section of Dermatology.

9. Discussion on the Treatment of Pruritus Ani, By M. Morris, E. W. Dunbar, and G. Pernet.
10. Discussion on the Comparative Value of the Old and New Method of Treatment of Lupus Vulgaris and Certain Other Skin Diseases, By J. H. Sequeir, A. Eddowes, G. H. Graham, and Others.
11. Discussion on the Relative Importance of Bacterial and Other Factors in the Causation of Skin Diseases, By A. Whitfield, A. D. Heath, S. E. Dore, and Others.
12. A Case of Acne Keloid, By A. D. Heath.
13. Benign Cystic Epithelioma and Its Relationship to So Called Syringocystadenoma, Syringocystoma, and Hæmangeioendothelioma, By M. B. Hartzell.
14. The Bacillus Pyocyaneus and Pemphigus Vegetans, By G. Pernet.
15. On Chronic X Ray Dermatitis, By J. H. Edwards.
16. On the Non-Parasitic Cutaneous Reactions, By L. Roberts.
17. The Influence of Peripheral Nerve Irritation Upon Diseases of the Skin, By G. N. Meacher.
18. Kaposi's Disease, By P. Martin.

Section of Medicine.

19. Discussion on the Treatment of Tuberculous Pleural Effusion and Pneumothorax, By W. Osler, G. A. Gibson, S. Boyd, and Others.

7. **Lesions in General Paralysis.**—Orr and Rows have studied the lesions in the posterior columns of cases of general paralysis. As the lesions had in no case reached the stage of secondary sclerosis, their starting point was determined without difficulty. In every case examined they found the following constant features: 1. The por-

tion of root between cord and posterior root ganglia shows no degeneration. 2. Degeneration of the internal division of the sensory root in its intramedullary path, commencing at the point of entrance into the cord. 3. The external division, or Lissauer's area, remains almost intact. 4. The collaterals and terminals passing into the gray matter share in the degenerative process. 5. The long fibres derived from segments situated low down in the cord are also affected, as shown by the presence and position of the degenerated fibres in Goll's column in the upper parts of the cord. They believe the sensory fibres to be specially vulnerable just where they enter the cord, owing to the absence of the neurilemma. Here, too, the medullated sheath is thinned or even absent. Therefore toxines, either circulating in the cerebrospinal lymph or ascending by the nerve sheaths from the limbs, must attack the fibres at this point. The absence of changes in the roots between the ganglia and the cord excludes the view that the already described appearances are secondary to nerve cell destruction or to any lesion of the nerves in their extramedullary path. In conclusion, they hold that tabes dorsalis is a chronic affection of the sensory fibres, due to the primary influence of a toxine in the posterior lymph system which attacks the nerves at the vulnerable point. The fibres affected must be assumed to be weaker than those which are not, but the lesion spreads to the latter, owing to the secondary changes induced by the degenerative products. Thus degeneration slowly merges into sclerosis.

9. **Pruritus Ani.**—Morris limits the term pruritus ani to a condition characterized by intense itching about the lower orifice of the bowel, extending internally an inch or so up the rectum, and externally affecting the puckered area of skin over the corrugator cutis ani. As a symptom it is most often due to gout—also to rheumatism, albuminuria, and diabetes. Digestive disorders cause it, and it may result from the use of tobacco, strawberries, shell fish, etc. Among the local causes are piles, constipation, fissure, fistula, etc. Eczema or psoriasis may cause it, and lastly it may be a reflex symptom dependent upon widely varying conditions. As an essential disease it is a sensory neurosis, often originating in emotional disturbances. It may occur at any age. The itching is intense and is usually worse at night. The objective symptoms consist in secondary lesions caused by scratching. The first step in treatment is to seek the cause and remove it if possible, so that a careful general and local examination must always be made. The most scrupulous cleanliness must be enjoined: still washing with soap and water after every evacuation is perfection hard to obtain. The application of water as hot as can be borne is very soothing, and oatmeal, borax, or carbonate of sodium may be added to the water. Local remedies may be classified under three heads—anodyne, antiseptic, and caustic. The best anodyne is cocaine, used in the form of a suppository containing half a grain of the drug. Menthol and carbolic acid often act exceedingly well. Tarry preparations; nitrate of silver, extract of belladonna, balsam of Peru, and chloroform ointment have also been highly recommended. Among antiseptics the most useful is mercury, and it is very conveniently used in the form of the oleate. Calomel and black wash are also of service. Nitrate of silver is the best caustic, applied in solution of half a drachm to one ounce of spirit of nitre. The actual cautery often acts well. If there is spasmodic tightness of the sphincter forcible dilatation may give relief, or the wearing of an ivory plug. The patient should be kept cool in bed. In the purely neurotic forms of pruritus the less local treatment used the better. Dunbar has found antipyrine of service in cases of pruritus following influenza. Sulphate of atropine ointment, four grains to the ounce, is the best local application. Pernet calls attention to the value of the bicycle in some cases, especially where constipation is present.

19. **Tuberculous Pleural Effusion.** — Osler states that a large proportion of all cases of simple serofibrinous pleurisy are tuberculous, especially in the absence of pneumonia or sepsis. This view is based upon: 1. The finding of tubercles in cases of sudden death in pleurisy with effusion. 2. The frequency with which healed tuberculous pleurisy is met with in the post mortem room. 3. A study of the exudate: (a) The general characters present nothing distinctive; it may be turbid or clear. (b) Cytological. In tuberculous cases the exudate contains small uninuclear leucocytes. (c) Bacteriological. The bacilli may be found in many cases, by letting the exudate clot, digesting the coagulum with pepsin and hydrochloric acid, and then centrifugating and staining the sediment. (d) Inoculation of animals. (e) Agglutination. 4. The presence of tuberculous foci in other parts—adenitis, fistula, epididymitis, etc. 5. The subsequent development of phthisis. 6. The presence of a characteristic tuberculin reaction. As regards treatment, he advocates early tapping, as recommended by Delafield. In fortunate cases the fluid does not return, and the fever disappears. Additional advantages are the prevention of dense adhesions with the subsequent retraction of the chest wall. He is very skeptical as to the value of the iodides in promoting absorption. Indirect measures, such as purging, sweating, and the limitation of fluids, may sometimes be of service. Systematic pulmonary gymnastics are of the greatest importance. An excellent method is the forcible blowing of water from one Wolff's bottle to another. As a rule, the associated conditions render the treatment of pneumothorax very unsatisfactory. West, in discussing pyopneumothorax, states that if it is treated on general lines like an empyema, its prognosis will be hardly, if at all, worse than that of tuberculous empyema. At the time of onset, so soon as the condition is recognized, the pressure symptoms should be relieved, if necessary, by paracentesis or even by incision. In the later stages, when effusions form, the case should be dealt with on the ordinary lines of serous effusion on the one hand, and of empyema on the other.

Proceedings of Societies.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Meeting of Thursday, October 6, 1904.

The president, Dr. Richard C. Norris, in the chair.

The Immediate Repair of the Cervix.—Dr. Barton Cooke Hirst stated that this title was a misnomer, as experience had demonstrated that the intermediate repair of the cervix, after the fifth day, gave the best results. This fact dictated the time for the repair of all the pelvic injuries, if the cervix must also be repaired. Trachelorrhaphy, he said, could be performed with perfect success and without morbidity or mortality during the puerperium. The specialist who criticised the operation as to safety or success was either prejudiced or incompetent. The author had performed the operation in more than 150 cases at the University Hospital, and practised the procedure in his private and consulting work. The question arose as to how the community at large could be offered the advantages of special attention for lacerations incident to childbearing. The writer's solution was for the poorer classes to be confined in well appointed and intelligently managed hospitals, and for the wealthier classes to be attended by their family physicians under the supervision of a specialist, who could deal with complications in labor, examine the patient during the puerperium, repairing whatever damage had been done, and make the final examination at the end of the puerperium. He considered that the plan was one that appealed to the general physician as practicable and desirable.

The Immediate Repair of the Pelvic Floor and Perinæum.—Dr. Edward P. Davis, in this paper, said that when the uterus was well contracted, when inspection of the cervix revealed no laceration with bleeding, and when torn vessels in the posterior segment of the pelvic floor were not bleeding, persistent hæmorrhage was caused by a laceration of the vulva or of the anterior segment of the pelvic floor, and that upon inspection a positive diagnosis could be readily made.

The treatment of the condition, he said, might be expectant or by serres-fines or by suture. If such lacerations were of considerable extent, the important fascia of the pelvis would be torn, and prolapse and dislocation of the urethra and vaginal wall would result. The treatment by serres-fines he regarded as unsatisfactory and one which had been employed chiefly in foreign hospitals. The primary closure of such injuries by fine or medium sized chromicized catgut under antiseptic precautions was satisfactory. Where extensive lacerations high up occurred, it was often impossible to close the entire laceration completely and accurately. One or two sutures of medium sized catgut buried deep enough to include the fascia would be of great service in preventing prolapse. Lacerations of the posterior segment of the pelvic floor usually divided themselves into tears of the pelvic floor and those of the perinæum. The diagnosis of perineal tears was readily made by inspection, but the recognition of injuries to the pelvic floor required special care in exposing the deeper tissues. To make a thorough examination and diagnosis, the patient must be placed upon the back or side at the edge of a bed or table, the labia separated, and the pelvic floor raised for inspection. The extent and importance of lacerations of the pelvic floor must be estimated by the presence or absence of injuries to the deep fascia and to the sphincter of the bowel. Lacerations of the posterior segment might be closed immediately or after some delay. If the tear was considerable and the condition of the patient bad, an operation might wisely be delayed for from twenty-four to thirty-six hours. The most important stitches in closing lacerations of the pelvic floor were those placed at the highest points in the tears in the sulci.

In repairing the perinæum Dr. Davis directed that the operator begin nearest the anus and bring together the skin edges and underlying fascia with silkworm gut stitches, taking a considerable portion of tissue, but without tension. The perinæum should be brought together up to the point where the posterior vaginal wall began. In this operation a perfect result might not be obtained, from one of several errors: If the pelvic floor sutures were continued upon the perinæum, the posterior wall of the vagina would be brought downward and protrusion of the vaginal mucous membrane would result. If the stitches were drawn tight, and especially those in the perinæum, they would cut. If sufficient tissue was not taken in the stitches, a superficial union only might occur. In complete tears, the rectum might first be closed by continuous suture of No. 1, chromicized catgut, prepared to last ten days, the stitches passed into the connective tissue, turning the mucous membrane into the bowel. A careful approximation would turn but little mucous membrane into the intestine, and secure good application for the stitches. The fascia and the sphincter muscle of the bowel might then be accurately closed and then the pelvic floor and perinæum, as in an incomplete tear. Chromicized catgut prepared to last ten days, No. 2, had given good results in the sulci of the pelvic floor and where but one stitch was required in the fascia and in the sphincter of the bowel. For closing the anterior segment of the pelvic floor and the rectum, No. 1 catgut of the same sort had been useful. In the skin perinæum, silkworm gut had given satisfaction; occasionally two weeks' catgut, chromicized, had given good results with great comfort to the patient. This would be an ideal suture for the skin perinæum were it not for its tendency to further the burrowing of bacteria in producing stitch abscess. To control hæmorrhage, pressure might be applied upon the perinæum by a firm pad of gauze, and a gauze tampon might be used in the vagina. Thorough asepsis prevented infection in most cases, and the avoidance of strong bichloride solution was a matter of some importance. In complete tears, the free use of salt solution on the mucous membrane of the bowel tended greatly to prevent infection. Where there was œdema.

the application of hot sterile compresses or irrigation with hot sterile salt solution might be useful. Vaginal douches should be avoided, because they might carry infective material from the perinæum to the cervix. The writer stated the possibility that puerperal septic infection by uterine or constitutional infection might develop while wounds in the perinæum and pelvic floor healed by primary union. The after-treatment of these cases consisted of surgical cleanliness so applied at least to disturb the tissues and parts which were healing. The use of the catheter after this operation should be as brief as possible, and its employment should cease after two or three days in the most extensive cases. After complete tears the rectum must be kept quiet for forty-eight hours, and after that daily movements of softened fæcal matter should occur. After the operation for complete tear, fistulæ might remain between the vagina and rectum for some time. Fluid might pass between these cavities and the operator be disappointed in the failure to obtain complete union. If care was exercised in aseptic precautions and saline flushing, these fistulæ would close spontaneously, and their presence would delay convalescence but slightly. In cases where but partial union occurred, so soon as the first stitches had been removed, a good result could often be obtained by curetting thoroughly the unhealed parts of the laceration and by inserting stitches a second time.

In estimating the success of an immediate operation the vaginal walls must be completely or very nearly in apposition and without prolapse, there must be good control of the sphincter of the bowel, and the patient must be free from pain, especially when using a closet or commode or when moving about; there must be no considerable vaginal discharge coming from the sutured tissues.

Dr. E. E. MONTGOMERY said it must be apparent to every one that the ideal method was the one which would restore the organs of the parturient woman to a condition similar to that existing prior to labor, and that a realization of the various sequelæ likely to follow failure to unite lacerations of the cervix or perinæum made this more evident. In operating he agreed with the readers of the papers as to the importance of thorough asepsis in every step of the procedure. The possibility of infection must influence the procedure, whether it was immediate, intermediate, or of a later date. Were he engaged in the practice of obstetrics, he would so practise it that he would be able to repair injuries at once. As a gynæcologist, who was likely to see the cases some time after delivery, he would want to know something of the methods of the attending obstetrician before he would resort to immediate repair of the cervix, vagina, or perinæum. He had knowledge of a number of cases of lacerations of the pelvic floor where the immediate repair was made, in which aseptic precautions had not been employed by the attendant, in which sepsis developed, and in which it was necessary to remove sutures to give the patient a chance for recovery. He referred to a case seen in consultation in which he was to decide upon the advisability of removing the uterus. He found that there had been a bilateral laceration of the cervix into the lateral fornices to the peritonæum. There was laceration of the perinæum to the sphincter. The perinæum had been repaired, with the result that the tissues were bathed with a lot of decomposing material and there was high fever. Instead of hysterectomy, he advised removal of the perineal sutures, the entire cavity to be irrigated and packed with gauze. A few hours later there was a temperature of 106°, but there was subsequent recovery. In other cases he had seen the immediate repair of the perinæum followed by much necrotic tissue between the sutures, no union ensuing and the necrotic tissue giving rise to danger from absorption of the putrescent material, rendering the condition perilous.

He referred to the objection which was sometimes made to immediate repair of the cervix from the fact that the parts were so relaxed that the sutures had to be tied firmly, and owing to the rapid involution the parts became loosened and union did not result. All, he said, knew of the classical case spoken of by Montrose A. Pallen, in which he had immediately repaired a laceration of the cervix and had good union.

Dr. Montgomery thought that the immediate repair of the cervix would occasionally lead—though he did not know that this was an objection—to the performance of an operation which with ordinary septic precautions would prove unnecessary. In the majority of primigravidæ laceration of the cervix occurred. In a series of examinations made at the Philadelphia Hospital, in the great majority of cases the laceration had healed spontaneously.

He fully agreed with Dr. Davis in reference to making proper apposition of the muscles. He was fond of catgut in all plastic operations on the vagina. The acid secretion of the vagina, however, caused the more rapid disappearance of the catgut than was evident in other parts of the body. He preferred the chromicized gut prepared to last twenty days. In some cases he had found that catgut prepared to last for a short time had been absorbed too soon, and there were stretching of the parts and formation of cicatricial tissue.

In operating upon the vagina and perinæum he would feel it absolutely necessary that the operation should include every laceration in the genital canal; otherwise there would be danger to the patient from the accumulation of material in the vagina giving rise to septic processes.

(*To be continued.*)

Smallpox on Ship from Java.—The British steamship *Langbank* arrived at the Delaware Breakwater on October 21st, two months out from Java, with a cargo of sugar. She was immediately placed in quarantine, because three cases of smallpox were found among the crew. The crew was composed principally of Malays and Lascars, who live chiefly on rice and curry, and who always carry one of their own countrymen as cook.

Book Notices.

A Textbook of Histology. Including Microscopic Technics. By A. A. Bohm, M. D., and M. von Davidoff, M. D., of the Anatomical Institute in Munich. Edited with Extensive Additions to Both Text and Illustrations by G. Carl Huber, M. D., Professor of Histology and Embryology and Director of the Histological Laboratory, University of Michigan. Second Edition, Thoroughly Revised and Enlarged. With 377 Illustrations. Philadelphia, New York, London: W. B. Saunders & Co., 1904. Pp. 528. (Flexible Cloth, $3.50.)

There can be nothing but praise for this model textbook and laboratory guide, which in this second edition, revised and enlarged, must be accepted as the definitive work on normal histology. The subject matter has been invested with such charm and interest that it makes one long to be a student again, and the surpassing beauty of the illustrations marks a distinct advance over most other works of similar character. In an introductory chapter the use of the microscope, its accessories, and the microtome is fully considered, and explicit directions are given in all modern methods for the preparation of specimens. These include not only the ordinary methods of maceration, hardening, infiltration, imbedding, sectioning, and staining tissues, but the newer methods of impregnation and injection, and also the reconstruction of ultimate anatomical structures by means of the plastic wax plate method of Born. Under general histology the intimate structure of the cell and elementary tissues is considered at length, and following the descriptive portion of the text there is in each case a detailed account of the laboratory methods employed in demonstration. The same satisfactory arrangement is followed in the special histology of the various organs and vessels of the body, and here the treatment throughout will be found to be fully abreast of the best and most recent literature.

In a work so uniformly good it would be invidious perhaps to direct attention to single features. To the physician, however, who made his studies in histology five or more years ago, will be of special interest the sections dealing with the blood, the ductless glands, innervation, sensory and motor nerve endings, and the neurones of the spinal and sympathetic ganglia, subjects in which the greatest additions have been made in recent years. The translating and editing have been carefully done, and in its mechanical execution the work is a specimen of artistic bookmaking which is fully worthy of the excellence of the text.

Les Rayons N et Les Rayons N_1. Par Le Dr. H. Bordier, Professeur agrégé à la Faculté de médecine de Lyon. Avec 16 Figures. Paris: J. B. Baillière et Fils, 1905. Pp. 96.

This little monograph presents in compact and interesting form all that is known about the kind of light of which the discovery was announced by Blondlot in March, 1903. The rays are called n rays in honor of Nancy, where Blondlot's work was done. They emanate, according to our author, from luminous sources, the Crookes tube, the Welsbach and similar lights, the Nernst lamp, incandescent metals, and the sun; and from non-luminous sources, bodies in a state of stress, sonorous bodies, a magnetic field, Hertzian waves, liquefied gases, odorous substances, soluble ferments, vegetable tissues, and the human body. Our interest in the book is enhanced by the fact that it may all turn out to be based upon an illusion, for we know that half the scientific world outside of France doubts the very existence of any such rays.

Light Energy. Its Physics, Physiological Action, and Therapeutic Applications. By Margaret A. Cleaves, M. D., Fellow of the New York Academy of Medicine; Fellow of the American Electrotherapeutic Association, etc. With Numerous Illustrations in the Text and a Frontispiece in colors. New York: Rebman Company. London Agents: Rebman, Limited, 1904. Pp. xiv-827.

Dr. Cleaves gives in this book a very complete view of the subject of light as applied to the treatment of disease. The theoretical as well as the practical side is exhaustively treated, and the volume will serve as a guide to the intelligent application of phototherapy. The x ray is only incidentally mentioned. Among the subjects chiefly considered are the sun bath, concentrated sun light, the electric arc bath, the incandescent electric light bath, the Finsen light, the rays from radium, and the n rays. The illustrations are mostly of apparatus for the therapeutic application of these forms of light.

The work is a valuable one and has been published in attractive form.

Lectures to General Practitioners on the Diseases of the Stomach and Intestines. With an Account of their Relation to Other Diseases and of the Most Recent Methods Applicable to the Diagnosis and Treatment of Them in General; also the Gastrointestinal Clinic, in which all such Diseases are Separately Considered. By Boardman Reed, M. D., Professor of the Diseases of the Gastrointestinal Tract, Hygiene, and Climatology in the Department of Medicine of Temple College, Philadelphia, etc. Illustrated. New York: E. B. Treat & Co., 1904. Pp. 1021. (Price, $5.00.)

The author has attempted to prepare a book that will be a clear and complete clinical guide to diseases of the stomach and intestines, and at the same time keep the treatment of the subject within the compass of a not too bulky volume. To include these subjects in some nine hundred and eighty pages of text requires the omission of all historical observations and speculative discussions. The subject matter is presented in the form of lectures, based in part upon those delivered by the author to his classes and in part upon his contributions to journal literature.

The first three lectures, which constitute the first part of the book, describe the anatomy of the digestive tract and the physiology of digestion. Necessarily these subjects are considered briefly, and it seems as if the space might have been devoted to an elaboration of some other chapters.

The second part includes twelve lectures on methods of examination; the tests are not always described with as much detail as seems advisable, a consequence of the somewhat discursive style inseparable from lectures. The symptomatic guide to diagnosis in this part has been prepared carefully and is likely to be of considerable use.

Nineteen lectures on methods of treatment constitute the third part. The fourth part contains the lectures on gastrointestinal diseases.

Over one third of the book is devoted to anatomy, diagnosis, and treatment, each of which subjects is considered to a greater or less extent under the various diseases. The treatment of the latter will impress some readers as unnecesssarily diffuse without being sufficiently precise, but it is evidently an honest effort to record and interpret the experience of a busy practitioner.

Examination of the Urine. A Manual for Students and Practitioners. By G. A. DE SANTOS SAXE, M. D., Assistant Pathologist to the Columbus Hospital, New York, etc. Fully Illustrated, including 8 Colored Plates. Philadelphia, New York, London: W. B. Saunders & Co., 1904. Pp. 391. (Price, flexible leather, $1.50.)

A careful examination of this volume gives a most favorable impression of the thorough manner in which the author has discussed his subject. The significance of different tests and the proper manner in which they should be made are described clearly in almost every instance. In referring to the test for urobilin and the other pigments in the urine mention is made of the use of the pocket spectroscope, though the method of use is not described, and there is no reference to that instrument in the index. The proper method of using the centrifuge and obtaining the sediment is given with a detail that is sometimes overlooked by teachers and textbooks writers.

At the end of each chapter there are questions on the text, thus making the work an excellent volume for the student, while the practical and clear directions for the more important tests will commend the volume to the practitioner.

A Textbook of Clinical Diagnosis. By Laboratory Methods. For the Use of Students, Practitioners, and Laboratory Workers. By L. NAPOLEON BOSTON, A. M., M. D., Associate in Medicine and Director of the Clinical Laboratories, Medico-chirurgical College, etc. With 320 Illustrations, many of them in Colors. Philadelphia, New York, London: W. B. Saunders & Co., 1904. Pp. 547. (Cloth, $4.00; sheep or half morocco, $5.00.)

The author states that this book has emanated from a desire to satisfy the demands made by his pupils, and that it has been prepared to meet the present needs of the student and of the general practitioner by giving a working knowledge of the subject.

The microscope and its uses are described, and then the author proceeds to a description of the various laboratory methods of investigating the blood. It is believed that the pocket spectroscope, the use of which is described, should be mentioned as a test for cholæmia. We agree with the author that cryoscopy of the blood gives few definite results of value to the clinician.

In the chapter on the urine mention of Ruhemann's uricometer is omitted, but the instrument is described in the addenda, in which also is found a description of the purinometer.

The method of testing for albumin by heat and dilute acetic acid might have been described in more detail. Roberts's nitromagnesium mixture is a much more satisfactory reagent than pure nitric acid. Esbach's albuminometer is made now with a glass foot, so that the tumbler with the cardboard holder, illustrated on page 212, is not needed. The author's description of testing for albumin by a pipette has impressed us as convenient since we first saw it used, about a decade ago. The method of using Fehling's test is well described. Better forms of saccharometers may be obtained than that illustrated on page 230.

Different chapters treat of the gastric contents, the fæces, the sputum, the buccal secretion, the nasal secretion, discharges from the ear and eye, the secretions of the genital organs, transudates and exudates, cerebrospinal and synovial fluid, diseases of the skin, and milk. The work is well illustrated and is a very useful volume.

Kirkes's Handbook of Physiology. Revised by FREDERICK C. BUSCH, B. S., M. D., Professor of Physiology, Medical Department, University of Buffalo. Fifth American Revision, With 535 Illustrations, including many in colors. New York: William Wood & Co., 1904. Pp. 862.

Twenty years ago Kirkes's *Handbook of Physiology* had reached its eleventh edition in England and this country. For a generation it has been a favorite with teachers and students and has served its purpose well. In its present form the general arrangement of earlier editions has been followed, and in the main the work of revision has been fairly well done. While it is undesirable in a work for students to present at length controversial matters or facts, the relation of which is not definitely settled, yet it will be felt that some of the newer important contributions to physiology have received scant and rather superficial treatment. Certainly a chapter on the blood which does not contain the name of Ehrlich needs further revision to bring it down to date. A page and a half is insufficient for even a most elementary discussion of hæmolysis. To our taste the rather crude device of supplying illustrations "in colors" by printing wood cuts in red, brown, or blue ink mars somewhat the appearance of an otherwise attractive volume.

The Meaning of a Modern Hospital. By W. BRUCE CLARKE, M. A., M. B., Oxon., F. R. C. S., Surgeon to St. Bartholomew's Hospital. London, New York, and Bombay: Longmans, Green & Co., 1904. Pp. vi-47.

This pamphlet is a reprint of an address at the Abernethian Society of St. Bartholomew's Hospital, London, which was published in the *Hospital Journal* something more than a year ago.

The author adopts Galton's definition of an important function of a hospital: "A technical school in which the medical student must learn his profession, and it is the experimental workshop in which the matured physician or surgeon carries on scientific research." He describes the ward unit, ward accessories, the hospital pavilion, the isolation and the grouping of ward units, the grouping of pavilions, and the arrangement of the various departments, with a view to effecting the function above referred to as well as that of relieving and curing the sick.

The practical and terse way in which the subject is presented is of interest both to members of the medical boards and the boards of trustees of hospitals.

BOOK AND MAGAZINE NOTES.

The November *Cosmopolitan* contains an editorial attempt at a solution of the liquor problem, the views of several classes of people being considered, and a statement made that they all could meet on common ground. It is singular that the project does not take into account an important class that is much interested and whose opinion is entitled to the most respectful consideration. We refer to those who take wine, beer, or diluted spirits with their meals; they are the most rational consumers of alcohol and any legislation which did not consider them would be tyrannous and absurd.

In *Madame Délicieuse,* one of the short stories making up the volume, *Old Creole Days,* by George W. Cable, it will be recalled that in speaking of Dr. Mossy, the author says: All New Orleans, at least all Creole New Orleans, knew, and yet did not know, the dear little doctor. So gentle, so kind, so skilful, so patient, so lenient; so careless of the rich and so attentive to the poor; a man, all in all, such as, should you once love him, you would love him forever. So very learned, too, but with apparently no idea of how to show himself to his social profit—two features much more smiled at than respected, not to say admired, by a people remote from the seats of learning, and spending most of their esteem upon animal heroisms and exterior display.

Dr. E. T. Devine's book on The Principles of Relief is described as a comprehensive discussion of the general principles upon which charitable relief should be given to dependent families. The author is in a positon to speak with special authority because of his long experience as general secretary of the Charity Organization of New York city, a society which acts as a clearing house for the actual relief of many thousands of families each year, and which also takes an active part in social reforms and exerts an influence both on legislation and on local administration so far as these have to do with the welfare of the poor.

BOOKS, PAMPHLETS, ETC., RECEIVED.

Duality of Thought and Language. An Outline of Original Research. By Emil Sutro, Author of Duality of Voice, etc. Pp. viii-277. New York and Berlin: The Physio-Physic Society. [Cloth, $1.50.]

The Art of Cross Examination. With the Cross Examination of Important Witnesses in Some Celebrated Cases. By Francis L. Wellman, of the New York Bar. Pp. 404. New York, 1904: The Macmillan Company. London: Macmillan & Co., Ltd. [$2.50 net.]

A Manual of Experimental Physiology. For Students of Medicine. By Winfield S. Hall, Ph. D., M. D. (Leipsic), Professor of Physiology, Northwestern University Medical School; Professor of Physiology, Wesley Hospital School for Nurses, etc. Pp. 239, with 89 Illustrations and a Colored Plate. Philadelphia and New York, 1904: Lea Brothers & Co.

Kirkes's Handbook of Physiology. By W. D. Halliburton, M. D., F. R. S., Professor of Physiology, King's College, London. Nineteenth Edition. Pp. xxiv-902, with Nearly Seven Hundred Illustrations, including Some Colored Plates. Philadelphia, 1904: P. Blakiston's Son & Co. [$3.00 net.]

A Textbook of Quantitative Chemical Analysis. By Gravimetric, Electrolytic, Volumetric, and Gasometric Methods, with 72 Laboratory Exercises, giving the Analysis of Pure Salts, Alloys, Minerals, and Technical Products. By J. C. Olsen, A. M., Ph. D., Professor of Analytical Chemistry in the Polytechnic Institute of Brooklyn, formerly Fellow of the Johns Hopkins University. Pp. xix-513. New York, 1904: D. Van Nostrand Company. [$4.00 net.]

A Treatise on Bright's Disease and Diabetes. With Especial Reference to Pathology and Therapeutics. By James Tyson, M. D., Professor of Medicine in the University of Pennsylvania; one of the Physicians to the Pennsylvania Hospital, etc. Second Edition, including a Section on the Ocular Changes in Bright's Disease and in Diabetes, by George E. de Schweinitz, M. D., Professor of Ophthalmology in the University of Pennsylvania; Ophthalmic Surgeon in the Philadelphia Hospital, etc. Pp. 381, Illustrated. Philadelphia, 1904: P. Blakiston's Son & Co. [$4.00 net.]

Practical Dietetics. With Reference to Diet in Disease. By Alida Frances Pattee, Graduate Boston Normal School of Household Arts; Instructor in Dietetics, Bellevue Training School for Nurses, Bellevue Hospital, New York city. Second Edition, Revised and Enlarged. Pp. xvi-312. New York: Published by the Author.

Saunders's Question Compends. Essentials of Materia Medica, Therapeutics, and Prescription Writing. Arranged in the Form of Question and Answers Prepared Especially for Students of Medicine. By Henry Morris, M. D., Fellow of the College of Physicians of Philadelphia; Associate Member of the Association of Military Surgeons of the United States, etc. Sixth Edition, Thoroughly Revised by W. A. Bastedo, Ph. G., M. D., Tutor in Materia Medica and Pharmacology at Columbia University (College of Physicians and Surgeons), New York; Assistant Attending Physician to the Roosevelt Hospital Dispensary and to the Vanderbilt Clinic. Pp. 294. Philadelphia, New York, London, 1904: W. B. Saunders & Co. [Cloth, $1.00 net.]

Saunders's Question Compends. Essentials of Nervous Diseases and Insanity. Their Symptoms and Treatment. By John C. Shaw, M. D., Late Clinical Professor of Diseases of the Mind and Nervous System, Long Island College Hospital Medical School. Fourth Edition, Thoroughly Revised by Smith Ely Jelliffe, M. D., Ph. D., Clinical Assistant, Columbia University, Department of Neurology; Visiting Neurologist, City Hospital, New York. Pp. 196, fully Illustrated. Philadelphia, New York, London, 1904: W. B. Saunders & Co. [Cloth, $1.00 net.]

Saunders's Question Compends. Essentials of Bacteriology. Being a Concise and Systematic Introduction to the Study of Microorganisms. By M. V. Ball, M. D., Formerly Resident Physician, German Hospital, Philadelphia; Formerly Bacteriologist to St. Agnes's Hospital. Fourth Edition, Thoroughly Revised by Carl M. Vogel, M. D., Assistant in Pathology, College of Physicians and Surgeons, Columbia University, New York city. Pp. 243, with 96 Illustrations, some in Colors, and 6 Plates. Philadelphia, New York, London, 1904: W. B. Saunders & Co. [Cloth, $1.00 net.]

Saunders's Question Compends. Essentials of Anatomy. Including the Anatomy of the Viscera. Arranged in the Form of Question and Answers Prepared Especially for Students of Medicine. By Charles B. Nancrede, M. D., Professor of Surgery and of Clinical Surgery in the University of Michigan; Emeritus Professor of General and Orthopædic Surgery, Philadelphia Polyclinic, etc. Seventh Edition, Thoroughly Revised. Pp. 419, fully Illustrated. Philadelphia, New York, London, 1904: W. B. Saunders & Co. [Cloth, $1.00 net.]

New Methods of Treatment. By Dr. Laumonier. Translated and Edited from the Second Revised and Enlarged French Edition by H. W. Syers, M. A., M. D, Cantab.; Physician to Out-Patients Great Northern Central Hospital. Pp. xviii-321. Chicago, 1904: W. T. Keener & Co. [$2.50 net.]

Toxicology. A Manual for Students and Practitioners. By Edwin Welles Dwight, M. D., Instructor in Legal Medicine, Harvard University. Series Edited by Victor Cox Pedersen, A. M., M. D., Instructor in Surgery and Anæsthetist and Instructor in Anæsthesia at the New York Polyclinic Medical School and Hospital; Genitourinary Surgeon to the Out Patient Departments of the New York and the Hudson Street Hospitals, etc. Pp. 298. Philadelphia and New York: Lea Brothers & Co.

The Essentials of Chemical Physiology. For the Use of Students. By W. D. Halliburton, M. D., F. R. S., Fellow of the Royal College of Physicians; Professor of Physiology in King's College, London, etc. Fifth Edition. Pp. xi-236, Illustrated London, New York, and Bombay, 1904: Longmans, Green, & Co.

An Account of the Tapeworms of the Genus Hymenolepis, Parasitic in Man. Including Reports of Several New Cases of the Dwarf Tapeworm (H.nana) in the United States. By Brayton H. Ransom. Pp. 138. Washington, 1904: Government Printing Office.

Annual Report of the Health Department of the City of Louisville, Ky. For the Fiscal Year Ending August 31, 1904. M. K. Allen, M. D., Health Officer, Louisville, Ky. Pp. 79. Louisville, 1904: The Globe Printing Company.

Analysis of Chicago Market Milk. A Report by the Health and Sanitation Committee of the Civic Federation of Chicago, July, 1904. Pp. 19.

Die Entwickelung der Dermatologie in Berlin. Eine historische Skizze, von Dr. Paul Richter, Specialärzt für Hautkrankheiten in Berlin. Pp. 46. Berlin: August Hirschwald, 1904.

Boletin Extraordinario del Consejo Superior de Salubridad, Testo En Español, Francés e Inglés. Numero 4. Pp. 47. Mexico: J. Palencia, 1904.

Miscellany

A Definition of Medical Practice.—Dr. S. D. Van Meter, of Denver, has suggested the following definition of medical practice to be used by legislators intending to debar quacks from attempts to pass themselves off as qualified practitioners: Any person shall be regarded as practising medicine, within the meaning of this act, who shall in any manner hold himself out to the public as being engaged within this State in the diagnosis and treatment of diseases or injuries of human beings; or who shall suggest, recommend, or prescribe any form of treatment for the intended palliation, relief, or cure of any physical or mental ailment of any person, with the intention of receiving therefor, either directly or indirectly, any fee, gift, or compensation whatsoever; or who shall maintain an office for the reception, examination, and treatment of any person suffering from disease or injury of body or mind; or who shall attach the title of M. D., Surgeon, Doctor, or any other word or abbreviation to his name, indicative that such person is engaged in the practice of medicine as hereinbefore defined.

The Question of Tubal Menstruation.—Thorn, in *Fortschritte der Medizin,* for September 10, 1904, in discussing this interesting question, remarks that swelling of the tubal mucosa undoubtedly occurs during menstruation simultaneously with the swelling of the uterine mucosa. A loss of blood from healthy tubes at such a time has not as yet been observed. Observations to determine this point have been made upon tubes which were removed by abdominal section during the menstrual period, upon the tubes of an inverted uterus, upon the healthy tubes of women who died while menstruation was in progress, and upon those which were removed in connection with the removal of myomatous and carcinomatous uteri. In none of these cases could the menstrual flow from the tubes be determined.

In pathological conditions of the tubes, however, with fistulæ communicating with the abdominal wall or the vagina, hæmorrhages may occur which are quite similar to those which proceed from the uterus during menstruation. The author desires to add two new cases to those which have already been reported by Hofmeier, Thomson, Haeckel, Von Herff, and Wendeler.

One was a case of fistula leading from the tube to the abdominal wall following the enucleation of a myoma, the other a case of tubovaginal fistula following hysterectomy, the annexa upon the right side having been retained. In both cases periodical hæmorrhages of the menstrual type proceeded from the openings of the fistulæ. The hæmorrhages in the second case were regarded as an illustration of the so called vicarious menstruation.

Conclusions as to normal tubal menstruation could not properly be drawn from these cases.

Concerning Secondary Abdominal Pregnancy.—Prüsman, in *Fortschritte der Medizin,* for September 10, 1904, remarks that the view is becoming more and more general that in the case of extrauterine gestation in the second half of the period, it is best to resort to operation whether the fœtus is living or dead. The discussion of the question at the present time is controlled by the consideration of the most effective method of operating. The aim of the operation should always be the removal of the entire product of conception if possible. If the placenta is pediculated it can be tied off; if it has an extensive insertion it may be ligated in numerous places according to Martin's plan, or the spermatic and uterine arteries may be tied as recommended by Olshausen. The intestine may be so involved in the process that the placenta will be found attached to large portions of it, or it may become attached over a large surface of the mesentery. In such cases the surgeon is always confronted with serious conditions. Radical procedures may lead to injuries which will require extensive resection of the intestine. The recommendation of Pinaud and Ségond to sew the placenta to the abdominal wall and drain it, leaving it essentially as it was and closing the abdominal cavity is an uncertain procedure and very likely to result in decomposition and hæmorrhage. The author reports two cases of the condition which is under consideration. In the first there was intraligmentous development of a left tubal pregnancy with rupture and escape of the fœtus into the free abdominal cavity. When the abdomen was opened the apparently viable child was found free in the abdominal cavity with no covering membranes. The fear of hæmorrhage deterred the surgeon from attempting to remove the placenta, and it was secured to the abdominal wound. The patient died apparently from fibinous peritonitis. In the second case abdominal section was indicated on account of severe pain and an interstitial pregnancy of the right side with secondary abdominal pregnancy was discovered. The mummified, seven months' fœtus had been lying free in the abdomen for a year. This is the second recorded case in which a considerable development of the fœtus within the abdominal cavity was demonstrable in connection with interstitial location of the placenta.

The Statistics of Diphtheria.—Bing and Ellermann, in *Fortschritte der Medizin*, for September 10, 1904, observe that the opponents of serum therapy affirm that early treatment in the hospital is alone responsible for the good results which are obtained in cases which are received in that stage of the disease, and that the treatment with serum is of secondary importance. The authors have studied the records of a hospital in Copenhagen prior to the time when serum was used to ascertain whether there was a difference in mortality in those who were received early from those who were received late in the hospital. From their investigations it would appear that there certainly was, in the period referred to, a lower mortality among those who were received early than among those who were received late in the disease. But the authors do not believe that a statistical proof as to the effectiveness of the serum treatment can be obtained by such a method of comparison. For patients who are treated with serum during the first days of the disease cannot be brought into comparison with those who receive this treatment on the sixth or seventh day. The majority of cases are now received early in the disease, while those which are received late are usually very bad cases. The lighter cases are not usually sent in the later days of the disease, for the disease in such cases is usually under control at that time. Those cases which are received late will therefore necessarily show a high mortality which should not be regarded as the true mortality of the disease at the present time.

The proper decision upon this question can be reached only by distributing the patients into two groups, one of which receives the serum treatment while the other does not. On the whole, most clinicians who have used the serum treatment will be satisfied with the results attained.

Anonymous Gift to the Rome, N. Y., Hospital.—An addition to the Rome hospital, to cost $10,000 or $12,000, was formally promised to the board of trustees on September 9th, by a benefactor who prefers to remain anonymous. The addition will be known as the Nurses' Home. It is designed to accommodate various departments.

According to the plans, the operating and other rooms on the third floor of the present building will be transformed into a mechanicotherapeutic department, with electric baths, electric light baths, dry hot air baths, modern appliances for electricity in an x ray room, galvanic and faradaic appliances, etc.

The addition will be built just west of the present hospital, and the two structures will be connected by a one story passage way. In its general exterior lines it will be almost a counterpart of the older building; it will be built of brick and stone, will be two and a half stories high, and will face Garden Street. The present portico and main entrance will give way to a similar entrance on the west side of the nurses' home.

The tentative plans call for a building with a frontage of 34½ feet, with a depth of 62½ feet. In the rear there will be a one story extension, 16 by 18 feet, with a skylight occupying practically the whole top. This extension is designed for use as an operating room, and, with the equipment now in use, will constitute one of the most valuable features of the institution. According to the tentative plans, the ground floor of the new building will be divided by a reception hall running east and west, and leading from the main entrance through to the passage way to the present hospital. In front looking out on Garden Street, there will be a reception room and a doctor's office. A narrower hallway will run back from the reception hall to the operating room, and on the west side of this passage there will be two rooms—a sterilizing room and a large emergency room. The latter will be another feature of special value, for emergency cases can be cared for without being taken near other patients.

On the other side of the narrower hallway there will be an ether room, toilet room, doctors' dressing room, and matron's room.

The second floor is to be divided by a hallway running north and south, on either side of which will be rooms for nurses. There will be twelve of these apartments, the dimensions of each of which will be 8 by 12 feet. On this floor there also will be a bathroom, clothes presses, and linen closets. The half story above will not be quite as high as the upper story of the other building.

The plans are, of course, subject to revision.

Official News.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the week ending October 29, 1904:

Place.	Date.	Cases.	Deaths.
Smallpox—United States.			
Illinois—Chicago	Oct. 15-22	30	2
Michigan—At 42 places	Oct. 8-15	Present.	
Missouri—St. Louis	Oct. 15-22	30	6
Ohio—Cincinnati	Oct. 7-21	3	
Pennsylvania—Philadelphia	Oct. 15-22		1
Pennsylvania—Steelton	Oct. 15-22	1	
South Carolina—Greenville	Sept. 25-Oct. 1	3	
Wisconsin—Milwaukee	Oct. 8-22	12	
Smallpox—Foreign.			
Brazil—Pernambuco	Sept. 1-15		25
Brazil—Rio de Janeiro	Sept. 18-Oct. 2	655	247
China—Shanghai	Sept. 3-10		1
France—Paris	Oct. 1-8	8	
Great Britain—Edinburgh	Oct. 1-8	1	
Great Britain—London	Oct. 1-8	1	
Gt. Britain—Newcastle-on-Tyne	Oct. 1-8	8	
Great Britain—Nottingham	Oct. 1-8	1	
Great Britain—South Shields	Sept. 18-24	1	
India—Bombay	Sept. 20-27		2
Italy—Catania	Sept. 28-Oct. 6		1
Italy—Palermo	Sept. 25-Oct. 8	14	5
Malta	Sept. 25-Oct. 1	1	
Russia—Moscow	Sept. 25-Oct. 1	7	2
Spain—Barcelona	Oct. 1-10		7
Yellow Fever.			
Costa Rica—Limon	Oct. 8-15	1	
		Imported from Sequires.	
Cuba—Santiago	Oct. 24	1	
		From Puntasal.	
Mexico—Coatzacoalcos	Oct. 8-15	3	2
Mexico—Merida	Oct. 2-15	1	1
Mexico—Tehuantepec	Oct. 2-15	4	2
Cholera.			
India—Bombay	Sept. 20-27		9
India—Calcutta	Sept. 17-24		2
Turkey—Bagdad and vicinity	Aug. 20-Sept. 3	585	405
Plague—Insular.			
Philippine Islands—Manila	Sept. 3-10	1	1
Plague—Foreign.			
Africa—Cape Colony	Sept. 10-17	3	
Africa—Johannesburg	Mar. 26-July 9	156	95
Brazil—Rio de Janeiro	Sept. 18-Oct. 2	56	24
China—Hongkong	Aug. 27-Sept. 10	6	6
India—Bombay	Sept. 20-27	11	85
India—Calcutta	Sept. 17-24		3
India—Karachi	Sept. 18-25	11	7
Japan—Formosa	Aug. 1-31	34	38
Straits Settlements—Singapore	Oct. 2	Present.	

Public Health and Marine Hospital Service:

List of Changes of Stations and Duties of Commissioned and Non-Commissioned Officers of the Public Health and Marine Hospital Service for the seven days ending October 26, 1904:

Brooks, S. D., Surgeon. Relieved from duty at Savannah, Ga. October 26, 1904.

Gibson, F. L., Pharmacist. Granted leave of absence for thirty days from December 2, 1904, and thirty days from January 1, 1905.

HANRATH, F. R., Pharmacist. Granted leave of absence for thirty days from September 26th.

MCINTOSH, W. P., Surgeon. Granted leave of absence for twenty-five days from November 8th.

SCHERESCHEWSKY, J. W., Assistant Surgeon. To proceed to New York, N. Y., and report to chairman of board of examiners for examination to determine his fitness for promotion to the grade of passed assistant surgeon. October 22, 1904.

SMITH, A. C., Passed Assistant Surgeon. To proceed to New York, N. Y., and report to chairman of board of examiners for examination to determine his fitness for promotion to the grade of surgeon. October 25, 1904.

TRASK, J. W., Assistant Surgeon. Granted leave of absence for one month from October 22nd.

WILLE, C. W., Assistant Surgeon. To proceed to New York, N. Y., and report to chairman of board of examiners for examination to determine his fitness for promotion to the grade of passed assistant surgeon. October 22, 1904.

WILSON, R. L., Assistant Surgeon. To proceed to New York, N. Y., and report to chairman of board of examiners for examination to determine his fitness for promotion to the grade of passed assistant surgeon. October 22, 1904.

Resignation.

Acting Assistant Surgeon B. McV. MACKALL, resigned, to take effect October 10, 1904.

Casualty.

Assistant Surgeon General GEORGE PURVIANCE died, as the result of an accident, at Philadelphia, Pa., October 20, 1904.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending October 29, 1904:

ASSERSON, F. A., Passed Assistant Surgeon. Ordered to the Navy Yard, New York, N. Y.

BACHMANN, R. A., Assistant Surgeon. Detached from the Naval Station, Cavite, P. I., and ordered to the *Wilmington.*

CURTIS, L. W., Surgeon. Ordered to the *Pensacola* and to additional duty at the naval training station, San Francisco, Cal.

SCOTT, S. L., Assistant Surgeon. Detached from the *Massachusetts* on November 28th, and ordered home; resignation accepted to take effect on December 1, 1904.

TOLFEE, H. M., Assistant Surgeon. Detached from the *Wilmington* and ordered home.

VICKERY, E. A., Assistant Surgeon. Ordered to the Naval Museum of Hygiene and Medical School, Washington, D. C.

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending October 29, 1904:

LYSTER, W. J. L., First Lieutenant and Assistant Surgeon. Leave of absence extended fifteen days.

METCALFE, R. F., First Lieutenant and Assistant Surgeon. Reports his departure from the United States General Hospital, Presidio of San Francisco, Cal., on leave of absence for one month.

TEFFT, W. H., First Lieutenant and Assistant Surgeon. Ordered to proceed from Fort Snelling, Minn., to Fort Lincoln, N. D., to accompany the Third Battalion, Twenty-first Infantry, to the Presidio of San Francisco, Cal.

USHER, F. M. C., First Lieutenant and Assistant Surgeon. Leave of absence extended fourteen days.

WADHAMS, S. H., First Lieutenant and Assistant Surgeon. Left the transport *Logan* on one month's leave of absence.

WILLIAMSON, L. P., First Lieutenant and Assistant Surgeon. Granted leave of absence for fifteen days.

Births, Marriages, and Deaths.

Born.

ROBBINS.—In Plum Island, N. Y., on Friday, October 21st, to Dr. C. P. Robbins, United States Army, and Mrs. Robbins, a son.

Married.

FOSTER—MORRIS.—In Montclair, New Jersey, on Wednesday, October 26th, Dr. Nellis Foster and Miss Julia Morris.

GRAHAM—FARROW.—In Baltimore, Maryland, on Monday, October 24th, Dr. Neil Duncan Graham and Miss Elizabeth Farrow.

HANLEY—MOOREHEAD.—In Philadelphia, Pennsylvania, on Tuesday, October 25th, Dr. Walter S. Hanley and Miss Caroline E. Moorehead.

IRWIN—BARBOUR.—In Denver, Colorado, on Thursday, October 20th, Dr. J. D. Irwin and Miss Marie Barbour.

MAGNESS—MCCONNELL.—In Baltimore, Maryland, on Thursday, October 20th, Dr. S. Lee Magness and Miss Stella McConnell.

PEASE—MARSHALL.—In Alexandria, Virginia, on Thursday, October 20th, Dr. Theodore N. Pease, United States Navy, and Miss Mary Armstead Marshall.

STONE—POPPENHUSEN.—In New York, on Saturday, October 29th, Dr. William Metcalfe Stone and Miss Kate Marie Poppenhusen.

STUART—BLAKEMORE. — In Baltimore, Maryland, on Wednesday, October 19th, Dr. George H. Stuart and Miss Virginia Irene Blakemore.

TYLER—COLES.—In Philadelphia, Pennsylvania, on Thursday, October 27th, Dr. George Trotter Tyler and Miss Theresa Bullitt Coles.

Died.

ABBOTT.—In Newton, Massachusetts, on Saturday, October 22nd, Dr. Samuel Warren Abbott, in the sixty-eighth year of his age.

EASTMAN.—In Albany, N. Y., on Friday, October 21st, Dr. Noah L. Eastman, in the forty-seventh year of his age.

HETZELL.—In Philadelphia, Pennsylvania, on Tuesday, October 25th, Dr. David G. Hetzell, in the sixty-ninth year of his age.

JENNINGS.—In Louisville, Kentucky, on Thursday, October 20th, Dr. J. M. Jennings, in the fifty-third year of his age.

LEE.—In Baltimore, Maryland, on Thursday, October 20th, Dr. Richard C. Lee, in the seventy-second year of his age.

LYNCH.—In Chicago, Illinois, on Saturday, October 22nd, Dr. Helen Leeker Lynch.

OWSLEY.—In Glasgow, Kentucky, on Monday, October 17th, Dr. W. T. Owsley, in the eighty-sixth year of his age.

PARKMAN.—In Ballston, N. Y., on Monday, October 24th, Dr. Truman E. Parkman, in the eighty-fourth year of his age.

PHILPOT.—In Columbia, South Carolina, on Thursday, October 20th, Dr. William H. Philpot, in the seventy-seventh year of his age.

SCHADE.—In St. Louis, Missouri, on Tuesday, October 18th, Dr. Frederick Schade, in the eightieth year of his age.

SOPER.—In Montclair, New Jersey, on Saturday, October 22nd, Dr. Oliver Soper, in the sixty-third year of his age.

THORNTON.—In Gulfport, Mississippi, on Sunday, October 16th, Dr. J. J. Thornton, in the seventy-second year of his age.

WILSON.—In Jersey City, New Jersey, on Wednesday, October 26th, Dr. William Wilson, in the seventy-fifth year of his age.

WOODHOUSE.—In Philadelphia, Pennsylvania, on Wednesday, October 23rd, Dr. Samuel W. Woodhouse, in the eighty-fourth year of his age.

YOUNG.—In Prescott, Wisconsin, on Thursday, October 20th, Dr. Arthur Young, in the seventy-sixth year of his age.

New York Medical Journal
AND
Philadelphia Medical Journal.

A *Weekly Review of Medicine*

Vol. LXXX, No. 20. SATURDAY, NOVEMBER 12, 1904 Whole No. 1354.

Original Communications.

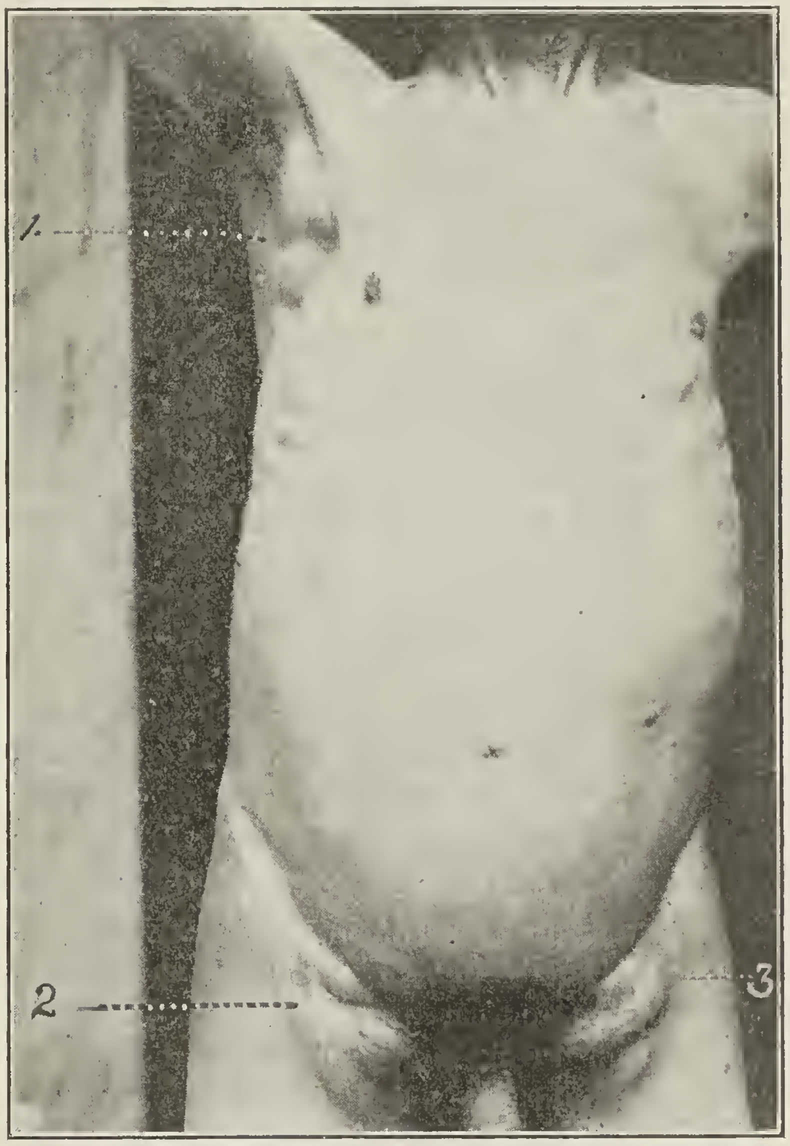
A CASE OF HODGKIN'S DISEASE.

By JOHN V. SHOEMAKER, M. D., LL. D.,
PHILADELPHIA,
PROFESSOR OF MATERIA MEDICA, THERAPEUTICS, AND CLINICAL MEDICINE IN THE MEDICO-CHIRURGICAL COLLEGE AND HOSPITAL.

HISTORY.

A physician, 52 years of age, was admitted to the Medico-Chirurgical Hospital on February 1, 1904. He gave the following history: He had never been ill until two years previously, when he had had under his care 19 cases of smallpox. He vaccinated himself in several places, but the operation seemed to be unsuccessful. After six weeks, a rash appeared upon the greater part of his body, remained in existence two weeks, and then disappeared. A few weeks later the eruption again became manifest and lasted for a fortnight. It was accompanied by intense itching.

Since that time there had been progressive enlargement of lymphatic glands in various parts of the body. During the last six months these had become particularly conspicuous. Within this period he had lost 25 pounds in weight. When admitted, he was emaciated and extremely weak, was unable to walk without assistance, was very anæmic, and had an anxious expression. He suffered much from pain in his back. The heart's action was rapid, but there was no organic disease. His pulse was soft and the circulation poor. The lungs were unaffected. He had lost appetite and suffered from indigestion. His bowels were loose. The respiration was shallow and there was dyspnœa. There was no history of syphilis. The patient's father had died of pneumonia, his mother of cancer. One brother died when very young and another at the age of thirty-seven years, of, it was said, aneurysm of the brain. In both groins and in the right axilla were glandular tumors as large as apples. In the left axilla and neck were similar enlargements varying from the size of a pea to that of a walnut. There was also a general enlargement of the lymphatic glands. The tumefactions in the groins were somewhat immovable and of moderate consistency. Those of the axillæ and neck were movable and of the same consistence. The tumors had not been painful. The patient was of the opinion that they were smaller and softer than they had been. In this he was perhaps mistaken. He thought also that those of the neck had lessened in size during the preceding month. Nevertheless, the tumors do sometimes spontaneously decrease in size before death.



1, 2, 3 indicate the glandular involvement of the right axillary and both inguinal regions, respectively. The size of the abdomen indicates in part the extent of abdominal involvement.

There was diminished resonance over the upper part of the sternum, but no other sign of involvement of the mediastinum. The spleen was much enlarged, extending a hand's breadth below the margin of the ribs. It was firm, smooth, rounded, and somewhat tender. The abdomen was prominent and upon its left side was a tumor as large as a fœtal head. Another distinct mass, about one half that size, could be felt upon the right side. Other smaller tumors could be detected. The liver extended two fingers' breadth below the costal border.

On the day of admission a fluoroscopic examination by Dr. G. E. Pfahler, Assistant Physician and Skiagrapher to the Medico-Chirurgical Hospital, confirmed the evidence of the physical signs of percussion and auscultation; the lungs were clear. The right side of the diaphragm moved 3½ inches between forced inspiration and forced expiration. The left side of the diaphragm moved only 1½ inches, being displaced upward 2 inches, was on a level posteriorly with the ninth rib, and its curve was somewhat flattened. There were indistinct shadows about the size of a small fist. These latter shadows of the mediastinum are shown in the skiagraph.

The patient's stay in the hospital was sixteen days and was terminated by death. During this period his temperature fluctuated between 97° and 100° until three days before death, when it rose to 101°. His pulse varied from 80 to 120, the respirations from 20 to 30. On February 9th and 10th he vomited frequently and at the same time had troublesome attacks of hiccough lasting about twenty minutes. These symptoms disappeared several days before death. He had from one to six stools a day.

The urine was of acid reaction, specific gravity 1022. Neither albumin nor sugar was present, but a few hyaline casts were found. On February 3rd, an examination of the patient's blood by Dr. Craney, assistant bacteriologist to the Medico-Chirurgical Hospital, showed hæmoglobin 58, erythrocytes 2,440,000, leucocytes 5,200. The results of an examination by Dr. Pfahler on February 15th were: hæmoglobin 55, erythrocytes 3,060,000, leucocytes 20,000.

Diagnosis.—From their situation, consistency, and mode of evolution the tumors in this case unquestionably consisted of enlarged lymphatic glands. Tuberculosis is a frequent source of glandular disease, but its influence is, as a rule, strictly localized and confines itself, above all, to the glands of the neck. These usually, in course of time, exhibit signs of inflammation and caseous degeneration. In this case symptoms of inflammation were absent. In syphilis we should have a different history together with the evidence of polymorphous lesions, large pustules, ulcers, scars, and pigmentations. The lymphatic tumors present in this case could be differentiated from gummata. Lymphosarcoma was excluded by the duration of the case and the absence of ulceration.

The pallor of the patient—the evident anæmia—suggested an examination of the blood, and it was, indeed, by the microscope that an exact diagnosis was established. The results of such an examination have shown that this case belongs to the class known as Hodgkin's disease, after the writer who first, in 1832, clearly described it, and which is also called pseudoleucæmia because, although there is a progressive diminution in the number of red blood corpuscles with a proportionate decrease of hæmoglobin there is no marked increase in the number of whites. The disease has likewise been termed, and has been confounded with, lymphadenoma, lymphatic anæmia, lymphatic tuberculosis, lymphosarcoma, and malignant lymphoma. In Hodgkin's disease the red corpuscles may diminish to 1,500,000, with but a slight increase of white cells. Pseudoleucæmia is an anæmia of the secondary type. According to the researches of Dorothy Reed, of Baltimore, who studied a series of eight cases, the increase of the lymphatic glands in Hodgkin's disease depends upon an overgrowth of the endothelial cells of the glands. The fibrous tissue is enormously increased; in an advanced period of the disease the glands are almost entirely transformed into fibrous tissue. Eosinophile cells abound and giant cells are also seen, containing single or multiple nuclei. The giant cells are derived from the endothelial elements. The microscopic picture of Hodgkin's disease is characteristic and is in itself sufficient to establish the diagnosis. Dr. Warfield T. Longscope, in a detailed study of eight cases of Hodgkin's disease (*Bulletin of the Ayer Clinical Laboratory of the Pennsylvania Hospital*) confirms the findings and conclusions of Reed as regards the pathology and its value in differential diagnosis. The changes in the glands appear, at least in the present state of knowledge, to be produced by a chronic inflammatory process. Bacteriology has as yet, however, thrown no light upon the subject.

Ætiology.—Although tuberculosis of lymphatic glands, as usually observed, presents a very different clinical aspect from Hodgkin's disease, yet there is no doubt that the two affections may coexist. Sternberg, in 1898, advocated the idea that pseudoleucæmia is, in reality, a form of lymphatic tuberculosis and this view has obtained credence with certain other authors. A case which well illustrates the possibility of tuberculosis assuming the guise of pseudoleucæmia is reported by E. Hibschmann and O. Stross (*Deutsche medizinische Wochenschrift*, May 21, 1903). There was a general involvement of the lymphatic glands. Those of the neck had been first affected. The patient was a man, 28 years of age. The spleen and liver enlarged, anæmia developed and the man died fifteen months after the commencement of the disease. He had had cough but no tubercle bacilli had been found in the sputum. There was caseous degeneration of some of the glands. Some contained numerous bacilli. A polymorphonuclear leucocytosis had existed. T. C. Ely is a writer who inclines to the belief that Hodgkin's disease and chronic lymphatic tuberculosis are identical. The case which he has studied (*Philadelphia Medical Journal*, October 18, 1902) occurred in the person of a child, 3½ years of age. Enlargement of glands had existed for two and one half years and had begun shortly after an attack of whooping cough. At the date of death the glands were enormously enlarged. Examination of the blood showed 3,624,000 reds, 6,066 whites, hæmoglobin, 18 per cent. In the cases studied so carefully by Reed, inoculation experiments failed to produce tuberculosis in animals by material taken from patients suffering from Hodgkin's disease. C. C. Simmons has described (*Journal of Medical Research,* 1903, ix, 378) his investigations in nine cases of pseudoleucæmia and concludes that it is a separate, distinct, and independent disease with no relationship to tuberculosis, although the latter may coexist as a secondary infection. He believes, furthermore, that Hodgkin's disease can be recognized by examining sections of glands under the microscope. Fischer published in 1897 an account of twelve cases of pseudoleucæmia, in which inoculation of guinea pigs with portions of glands failed to excite tuberculosis. In one of Reed's cases the lesions of tuberculosis and of Hodgkin's disease could both be detected and differentiated under the microscope.

If we dismiss the view that Hodgkin's disease is dependent upon tuberculosis we have nothing to substitute in its place. Its pathogenesis is still obscure and this is a field which needs exploration. In the case which I here report neither the lesions nor the bacilli of tuberculosis were found.

Pappenheim believes that Hodgkin's disease is, so to speak, a preliminary stage of true leucæmia. It is true that the clinical features are much the same in both affections. This writer is of the opinion that the alterations in the blood distinctive of lymphatic leucæmia do not occur until the bone marrow has been involved.

Pseudoleucæmia is a rare disease, much more common in men than in women. About 75 per cent. of the patients are males. It may make its appearance at any period of life, but most cases have developed between the ages of 30 and 40 years. In this respect my case was somewhat exceptional. The patient had passed the average time limit.

Symptoms.—The symptoms of Hodgkin's disease are principally those of grave anæmia, to which may be added those due to the pressure of enlarged glands upon neighboring structures. Usually the first phenomenon to attract attention is the swelling of the glands, although anæmia has been known to precede this manifestation. The cervical glands are generally the first to enlarge, although the disease may begin in the groin or axilla, which are also favorite situations. Some cases have been seen in which the tonsils were the first to become implicated. As the tumors are painless, destitute of signs of inflammation, and grow slowly the true nature of the disease may remain unsuspected for a certain period. The glands continue to augment, however, until they can no longer be overlooked. As they increase in size and others are attacked the skin and mucous membrane become pale and the symptoms of anæmia are apparent. In many instances the general health is at first but little affected. The spleen enlarges and, as in this case, may attain huge dimensions, although, as a rule, it is not as large as in leucæmia. The constitutional condition is impaired as decided anæmia develops. The appetite declines, the digestive functions are embarrassed, strength and flesh diminish, the action of the heart is enfeebled, palpitations occur, with headache, vertigo, and dyspnœa. Blood murmurs can be heard. As the case progresses, epistaxis and other forms of hæmorrhage may supervene. In some instances there is metrorrhagia. In other cases, on the contrary, amenorrhœa is witnessed. In the later stage of the disease there may be effusions into serous cavities. W. Broadbent has reported a case (*British Medical Journal,* May 16, 1903) of Hodgkin's disease in which there was a milky effusion into the pleural cavity. Pleurisy is one of the complications liable to occur in pseudoleucæmia. Other possible complications are nephritis, fatty degeneration of the heart, pneumonia, and pericarditis.

An irregular fever accompanies most cases. It is not constantly present, but the febrile attacks are separated by intervals of normal temperature. The fever may be of intermittent, remittent, relapsing, or continuous type. A febrile paroxysm may last from three to ten days. My patient gave a history of such irregular attacks and had some elevation of temperature while in the hospital.

The tumors may become as large as apples, oranges, or even pineapples. In these enormous aggregations, the separate glands of which they are composed can readily be recognized and detached from one another, being held together only by loose connective tissue. They are not fused together into a conglomerate mass, but each retains its individuality. The tumors are generally of moderate consistence.

When the masses are large they may cause various symptoms by their pressure upon blood vessels, nerves, or other structures. It is evident that the symptoms must depend upon the situation of the tumors. Those in the neck may produce cerebral anæmia if they compress the carotids; if, on the contrary, their pressure is chiefly exerted upon the veins, there is cerebral congestion and, perhaps, œdema of the face. The larynx may be pushed to one side, and the impediment to respiration may amount to strangulation. If the œsophagus is occluded it becomes difficult or impossible to swallow. Enlarged glands of the neck or thorax may compress the pneumogastric and disturb the action of the heart. Effusions into the pleura, pericardium, or peritonæum are caused in like manner. Obstructions in the axillæ or groins may give rise to œdema of the extremities. Asphyxia results from pressure upon the trachea, starvation from occlusion of the œsophagus. The pressure symptomatology is very variable according to the position of the tumors and the nature of the organs upon which they encroach. Abdominal growths may produce deep jaundice by compression of the bile ducts. Chylous ascites is a result of obstruction to the lymphatics.

In comparison with the size of the tumors, which were present in the case I here recount, symptoms indicative of pressure were conspicuous by their absence. The growths are generally in themselves painless, but they may excite pain if they press upon a nerve trunk, and to this fact we may ascribe the severe pain in the back from which my patient suffered.

There is likewise great variability as regards the course and duration of pseudoleucæmia. The majority of cases last from eighteen months to two years. The evolution is apt to be slow at first and more rapid toward the end. As respects duration, therefore, my case followed the usual rule. Dreschfeld has reported three cases in which the general health was so well preserved that the patients continued at their work until a sudden breakdown precipitated death within a few weeks.

In addition to the pallor characteristic of the anæmia the skin may be the site of other alterations in Hodgkin's disease. In some cases it has been bronzed, and this effect may have been due to pressure upon the suprarenal capsules. Erythema has been witnessed. There may be pruritus unaccompanied by any visible lesion. In the case which I here record there was intense itching together with, and presumably dependent upon, a peculiar cutaneous eruption, consisting of erythema and papules. An eruption of this form I have not seen alluded to by the authorities. The interesting question now arises, What relationship did this eruption bear to the Hodgkin's disease which came into existence, from the history, at about the same time? Furthermore, the patient had vaccinated himself about six weeks prior to the advent of the rash. Could the latter then depend upon the vaccination? It is well known that several—in fact, quite a number—of eruptions follow vaccination. One group of vaccine rashes seems to be due to pure vaccine inoculation and a second to mixed infection, but in either class an evidence of the adventitious rash manifests itself long before six weeks have passed. I believe, rather, that the pruritic eruption which so annoyed my patient stood in direct relationship to and was dependent upon the same cause which produced the changes in the blood and the lymph glands. Just as pallor and debility may sometimes precede the glandular enlargements in Hodgkin's disease, so in this case I regard the eruption as one of the early manifestations of pseudoleucæmia. Whether the eruption actually antedated the tumors cannot with certainty be said. Small swellings in the beginning of the disease may be overlooked for a time or considered merely as temporary affairs which will spontaneously subside.

Treatment.—The treatment of Hodgkin's disease has been most unsatisfactory. Heretofore, the prognosis has been practically hopeless. Whether we now possess in the x rays an influence which shall prove of permanent, or, at least, of continued benefit, remains to be proved by a wider experience. Other forms of treatment have been of little, if any, avail. We should naturally endeavor to place the patient under the most favorable surroundings, maintain his nutrition by means of simple, digestible, and nutritious diet, excite appetite and promote digestion by means of the appropriate remedies, and allay pain if present. Tracheotomy may be necessary in order to permit respiration when the tube is occluded but removal of enlarged glands does no good. Recurrence is noted within a few weeks. As regards medicinal agents arsenic has been our main reliance, given in increasing doses up to the verge of tolerance. A combination of iron and arsenic has been thought to cause temporary improvement. Some writers have recommended phosphorus.

There have been at least nine cases of Hodgkin's disease, and I now contribute a tenth, treated by means of the Röntgen ray. Four of these were treated by Pusey (The Röntgen Rays in Therapeutics and Diagnosis, *Journal of the American Medical Association,* January 18, 1902). His first case was that of a child, four years of age, who had been afflicted for ten months with pseudoleucæmia. After four months' treatment the child was nearly well. The treatment was then neglected for three months. In consequence the glands again began to enlarge. After six weeks and fifteen treatments they had disappeared. Five months later cervical glands became enlarged, an operation was performed, and the patient died of inspiration pneumonia.

The second case was that of a man, aged 50 years, who had suffered from Hodgkin's disease for twenty months. After four months' treatment the swellings had disappeared and the general health was very much improved. At the end of eight months there was a recurrence, which disappeared in one month after sixteen treatments. The patient had remained well since that time, a period of nine months.

The third case was in the last stage of the disease and no conclusions can be drawn. The fourth patient was aged 21 years and had been the victim of Hodgkin's disease for five months. The enlarged glands subsided in three weeks after nine treatments. Nine months had elapsed at the date of publication and the patient had no sign of recurrence. Williams has written of one case in which marked improvement followed the x ray treatment. (*The X Rays in Medicine and Surgery,* 1902). Storer reports a case with remarkable amelioration. The patient was still under treatment (*Denver Medical Times,* 1902).

Childs communicates the particulars of a case which exhibited a remarkable change for the better after sixty treatments (*Medical News,* January 24, 1903). Cooley publishes the history of a case improving after four months' treatment (*Medical News,* January 31, 1903). Dr. Laird reports favorably upon the x ray treatment and cites two instances of patients whom he had so treated (*New York Medical Journal,* April 18, 1903). Steinwald also has reported encouraging results in the case of a young girl treated by means of the x rays (*Journal of the American Medical Association,* March 26, 1904).

X Ray Treatment of Present Case.—My patient was given by Dr. George Pfahler daily exposures to the x ray for a period of ten minutes during six days. A high vacuum tube was used and the entire body exposed. The tube was placed over the spleen and abdomen. The abdomen, left side, and back were alternately treated.

It is difficult to draw conclusions from the results of treatment of a patient in the last stage of a heretofore incurable disease. The results in this case, however, were in some respects remarkable and are deserving of record. At the time of admission to the hospital, the patient was very weak, as has been said, and complained of severe pain. As, however, he had been placed under the influence of morphine the effect of the x rays in alleviating his pain could not be estimated.

The glands began to diminish in size at the end of a week and at the time of death, which was sixteen days from the commencement of the treatment by Dr. Pfahler they were only about one third their original volume. This diminution affected the axillary, inguinal, and retroperitoneal glands. The spleen decreased gradually and on the day of death it had receded to the costal border. The skiagraph here shown demonstrated marked enlargement of the mediastinal glands. The autopsy confirmed the physical observations relative to the reduction of the size of the retroperitoneal glands.

Such decided effects, obtained in sixteen days and in a moribund patient are certainly striking and warrant more extended experiment. It is obvious that there must be much more hope for improvement in an early period of the disease. This belief is demonstrated by the cases which had remained in good condition for months after treatment had been discontinued.

In the treatment of a case of advanced Hodgkin's disease (or cancer) with the x rays, we are confronted with three distinct dangers: 1. There may not be time enough for the procedure to produce any benefit. 2. The danger of an x ray burn. 3. The danger of a rapid disintegration of the new growths with the production of toxæmia.

The patient did, in fact, become toxic during the progress of the treatment, although this may have been but the ordinary termination of the disease.

AN INCOMPLETE REPORT OF TWO CASES OF CHRONIC MALARIAL CACHEXIA.

By LIONEL A. B. STREET, M. D.,
KYOTO, JAPAN,
LATE MEDICAL INSPECTOR, INSULAR BOARD OF HEALTH FOR THE PHILIPPINES.

I beg to submit the following report of two cases of chronic malarial cachexia. Both of these cases are incomplete, but owing to the nature of the disease, are interesting from a clinical standpoint:

CASE I.—Tiah, an Igorrote, aged about eighteen years, a soldier in the Philippine Constabu-

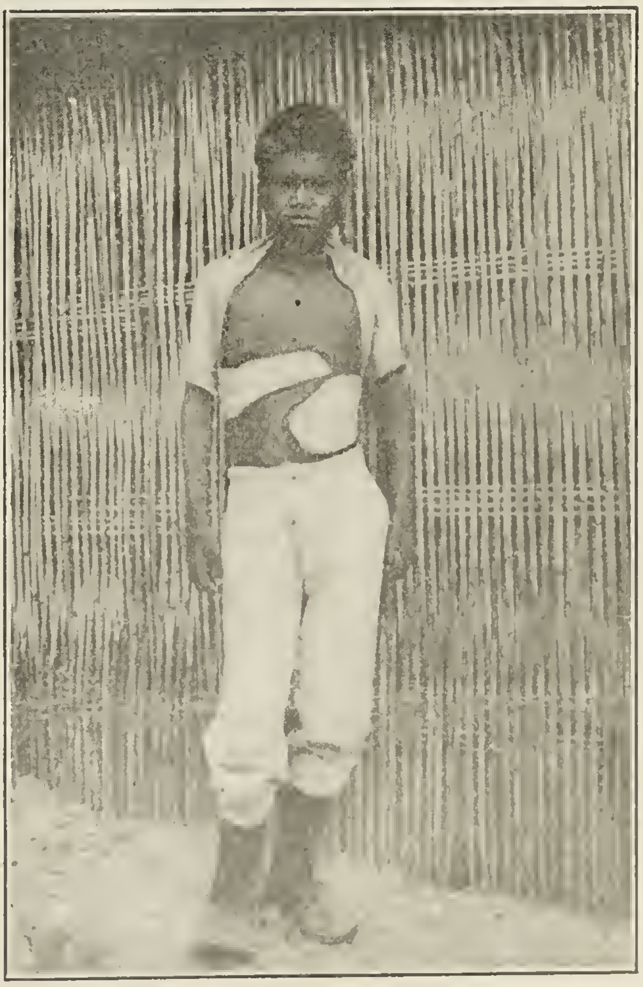


FIG. 1.—The case of Tiah, Igorrote; showing dulness.

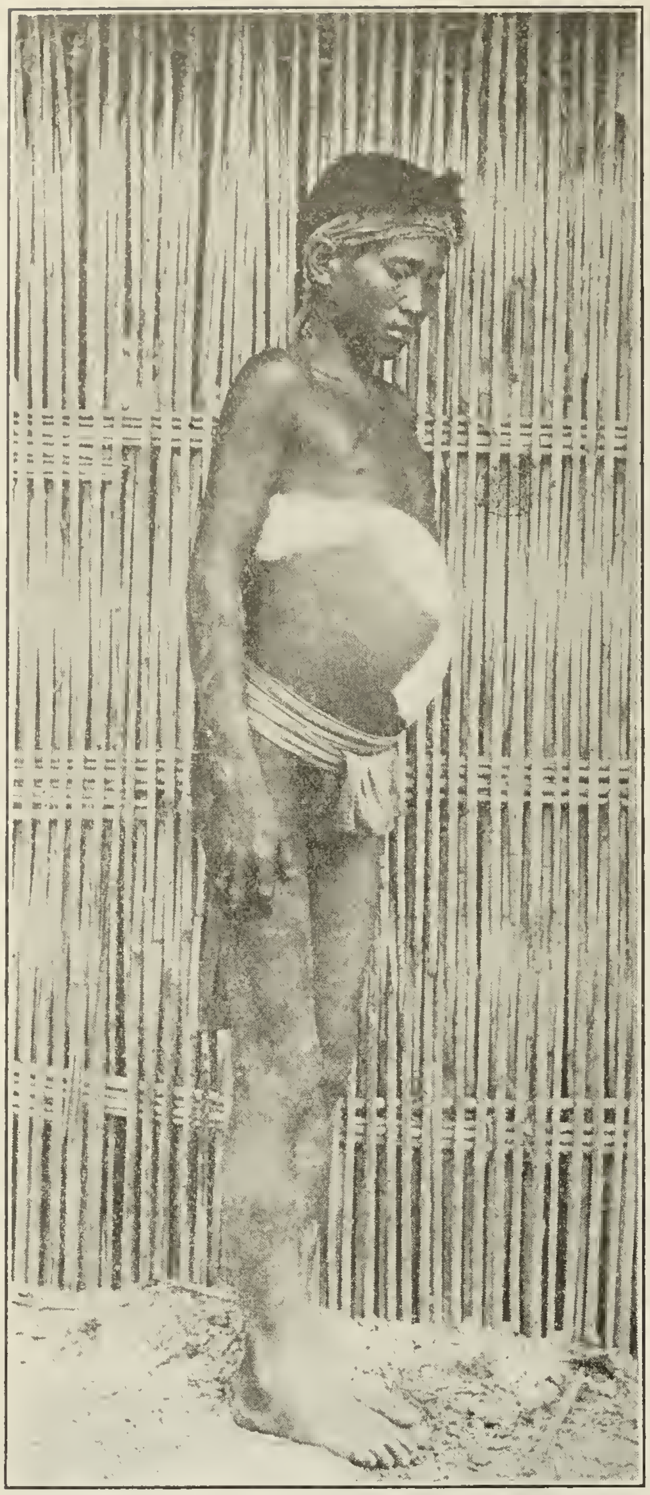


FIG. 2.—The case of Coop, Igorrote; three quarter view [showing dulness].

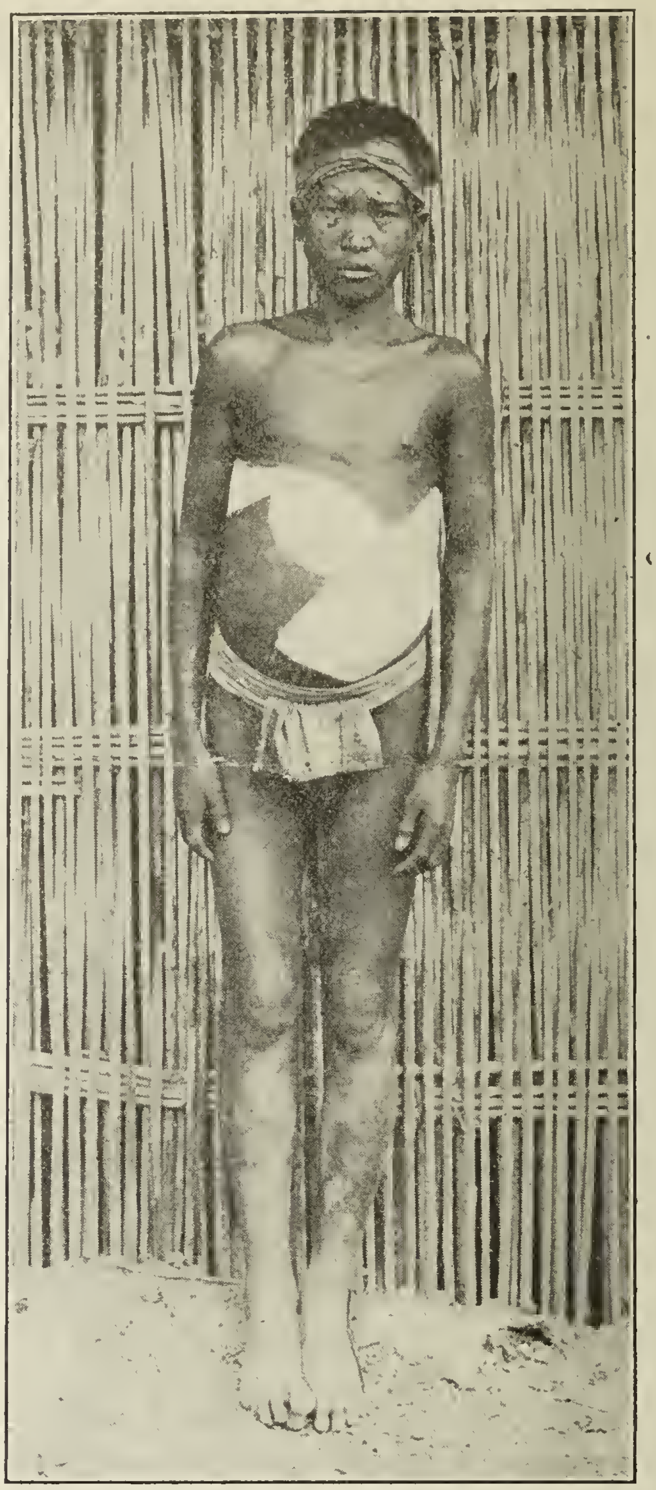


FIG. 3.—The case of Coop; front view.

lary. This case came under my observation August 4, 1903, with a history of chronic malarial infection; the patient complained of a slight fever daily between 12 m. and 1 p. m.; said he had had "dysentery" two years before, and had had diarrhœa off and on ever since.

Examination.—Patient about five feet in height, of solid build, but well nourished; complexion sallow; tongue heavily coated, and mucous membrane very pale; pulse slightly increased in frequency, but regular; temperature, 100.4° F. Heart; marked anæmic murmur. Hepatic and splenic dulness as shown in the attached diagram; a slight granular condition noted over the hepatic area; œdema of dependent parts; patient much jaundiced. Examination of urine for albumin, negative, but choluria present.

Diagnosis.—Chronic malarial cachexia and simple atrophic cirrhosis of the liver.

Treatment.—Calomel in divided doses, accompanied by small daily doses of magnesium sulphate, during the first ten days, also strychnine sulphate in doses of $^3/_{200}$ of a grain, three times a day. Counterirritation over the splenic area with tincture of iodine from time to time.

August 10th.—Prescribed the following:

℞ Fowler's solution of arsenic	8 parts;
Tincture of chloride of iron	32 parts;
Dilute nitrohydrochloric acid	25 parts;
Water, enough to make	128 parts.

M. Sig. One teaspoonful three time a day.

I increased the dose of arsenic with each repetition of the prescription until the point of tolerance was reached, which occurred when the dose had reached eight drops.

August 18th.—Hepatic area much the same, but area of splenic dulness perceptibly decreased.

August 25th.—Added three grains daily of quinine sulphate.

September 2nd.—Found that the quinine prescribed August 25th had not been taken, so combined it in the following prescription:

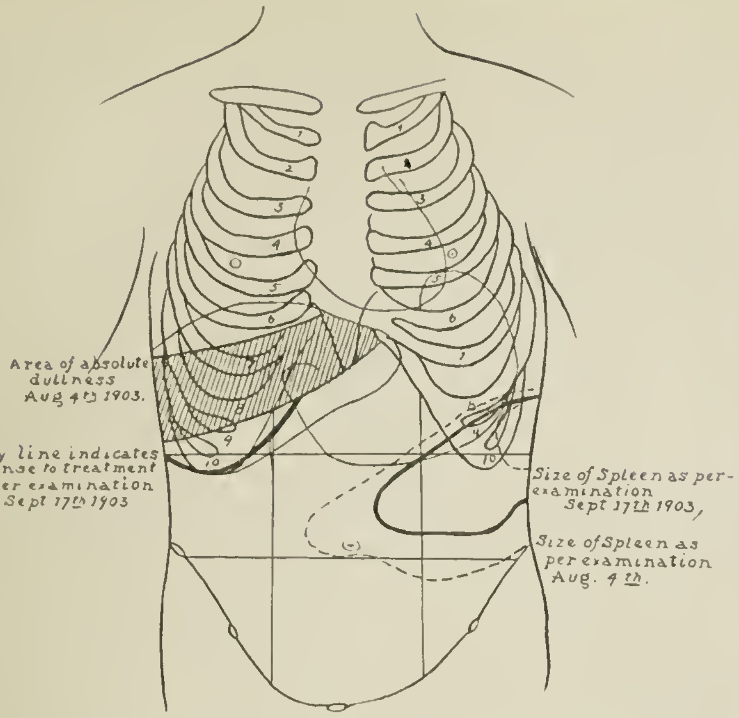

Area of absolute dullness Aug 4th 1903.
Heavy line indicates response to treatment as per examination Sept 17th 1903
Size of Spleen as per-examination Sept 17th 1903,
Size of Spleen as per examination Aug. 4th.

FIG. 4.—Diagram, showing liver and spleen dulness.

℞	Tincture of chloride of iron	32 parts;
	Quinine sulphate	4 parts;
	Dilute nitrohydrochloric acid	25 parts;
	Fowler's solution of arsenic	8 parts;
	Water, enough to make	128 parts.

M. Sig. One teaspoonful three times a day.

September 17th.—Jaundice has disappeared, appetite improved, and œdema diminished; hepatic area of dulness increased (with a disappearance of the granulations), and the splenic area of dulness decreased; also examination of urine, both for albumin and bile salts, proves negative.

September 21st.—Improvement continued.

At no time during the period the case was under my observation was the temperature above normal. No subsequent history was obtained, as the soldier was discharged for disability, and no doubt he returned to his mountain home, happy in the thought that at last he would be able to hold a " cañao " for his complete recovery.

CASE II.—Coop, an Igorrote, aged about twenty. Occupation, none. This case came under observation September 16, 1903, with a similar history to that of Case I; and in addition the patient complained of nausea and vomiting occasionally in the morning.

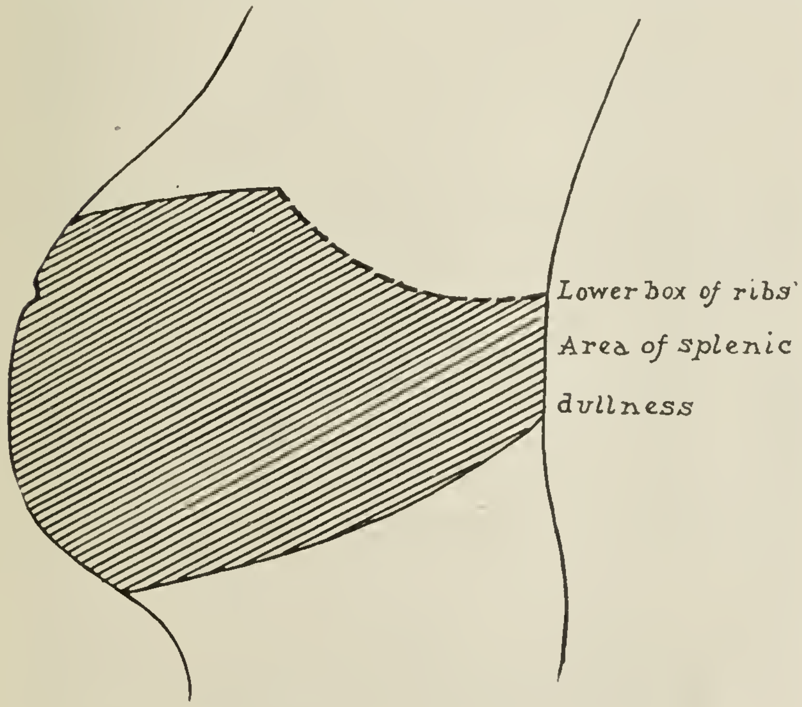


FIG. 5.—Side view of area of spleen dulness.

Examination.—Patient about five feet in height, somewhat emaciated, and of a sallow complexion; tongue slightly coated; mucous membranes pale; and, as in the other case, the patient jaundiced. Palpation revealed an enormously enlarged spleen (which was very hard), with a corresponding atrophy of the liver; the bowels were displaced upward and to the right, and the abdomen was very much enlarged and congested, giving it the appearance of an advanced pregnancy. Examination of the heart revealed a slight pulmonic souffle.

Diagnosis.—Chronic malarial cachexia with simple atrophy of the liver.

Treatment.—The same as in Case I. The patient was lost sight of after the second visit.

The accompanying photographs and diagrams will illustrate the conditions found in both cases.

OBSERVATIONS DRAWN FROM AN EXPERIENCE OF ELEVEN THOUSAND ANÆSTHESIAS.

By ALICE MAGAW,

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In a recent article by Dr. E. J. Mellish, the field of general anæsthesia was so thoroughly covered that there is little left to be said. As the call is becoming louder for skilled anæsthetists, not only from the surgeons, but from the laity, it is important that anæsthetists become as proficient as possible in the best methods of administering all anæsthetics.

I doubt if the ideal anæsthetic and the ideal method will ever be found, since, after experimenting for about sixty years with methods and drugs, we still have to cling to the first one, ether, as being chief. It is needless to say that ether is, and has been, our preference at St. Mary's Hospital. In 1902, out of 1,852 anæsthesias, 1,511 were from ether, and in 1903 we produced 2,091 anæsthesias, of which 1,771 were from ether, and out of which, 1.234 were given by the writer. Out of the 11.000 anæsthesias, I have never been so unfortunate as to have a death directly from the anæsthetic, neither have there been many scares; for, in six consecutive years, artificial respiration was not resorted to. True, we have had some experiences that will remain with us forever. To the conscientious anæsthetist, the profession is a hard one; indeed, there is but one view, and that is that the administrator of any anæsthetic is responsible for the results of the narcosis.

We mean to be exceedingly careful in our selection of an anæsthetic with different cases. An acute cold is a contraindication to any anæsthetic, more especially to ether. The cold invariably becomes worse, and pneumonia, during certain seasons of the year is not infrequent; while chronic bronchitis is often improved by an anæsthetic. Our pulmonary tuberculous cases undergo ether well, as a rule. As Mellish says: "We have pneumonia after local anæsthesia as well as after general, so we cannot attribute the trouble solely to the effects of the anæsthetic," and he also says: "The immediate safety during administration is so overwhelmingly in favor of ether that he who holds to the contrary cannot be fully acquainted with the facts, and, after all, there are but few contraindications to the use of ether administered by the open method."

Believing it narrow to stick to one method and laud one's own highly, we have tried all the methods and anæsthetics that have seemed reasonable to us, such as nitrous oxide gas as a preliminary to ether (this method we used in 1,000 cases) or chloroform and ether, etc., and in all cases we have found that these combinations, like all mixed anæsthetics are either unnecessary or harmful. After a fair trial, we have returned to ether by the drop method, which we have used largely for about eight years, and have written up several times. There have not been many material changes in methods since the publication of a previous paper by the writer, in 1901.

Giving an anæsthetic outside of the operating room is unheard of at St. Mary's Hospital, for we believe that it is important to prepare the patient for the surgeon while he is taking the anæsthetic, and we know that we can thus procure a more rapid surgical narcosis with less of the anæsthetic. For instance, our abdominal cases, even those in the Trendelenburg position, prepared on the table during the administration of the anæsthetic, will become relaxed in much less time and with less of the anæsthetic than the gynæcological and rectal cases, which cannot be prepared, or put in position, until after the patient is asleep. We find this method safer and more satisfactory in every way, as we are sure that the preparation is an important factor in occupying the attention of the patient and thus enabling us to hasten narcosis. Another important reason for giving the anæsthetic in the operating room is the fact that there should be as little disturbance of the patient, such as lifting, and shifting, as possible, for all this tends to bring on consciousness, with struggling and vomiting, and it becomes impossible for the anæsthetizer to continue the administration properly, as he is not positive of the condition of his patient. If the patient is prepared on the table, there is no time lost, the surgeon aiming to be ready to operate the instant narcosis is complete. From experience we know the patients can be brought under ether in from three to five minutes, and, when ready, patients do better if the operation is started at once, as it is more difficult to keep a patient surgically anæsthetized and just ready after the stage of complete narcosis; and, furthermore, it requires more anæsthetic than if the operation was in progress.

Many times the question arises as to the necessity of a reliable sign of complete surgical narcosis, and a great deal of blame is laid upon the anæsthetist for not having some positive way of telling when a patient is ready. If the surgeon is accustomed to the same anæsthetist, there is not once in ten times that he need ask if the patient is ready. He knows from the deep respiration, color, and relaxation. Failures occur in the very bad peritonitis cases, such as pus tubes, etc., and the conscientious surgeon will be ready to work, if possible, as soon as the narcosis is completed; his patient will not be allowed to remain under an anæsthetic one minute longer than is absolutely necessary. We have never found a single positive sign by which we could tell if the subject was ready, believing that there are many signs which sometimes guide, yet more often fail. We find that deep respiration, regular breathing, accompanied often by snoring, a relaxed jaw, as well as relaxed muscles, are very good signs to rely upon; and it is only the novice who takes the pulse regularly and touches the conjunctiva (a barbarous habit) to know if the patient is ready, especially when taking ether. In ether anæsthesia the pupil does not possess the important significance that it does in chloroform.

There are many surgeons who advocate taking the pulse every five minutes, and recording the same. It is certain that, where these things are required, the anæsthetist must have an assistant, or he is bound to neglect either the anæsthetic or his record, for he cannot attend to both properly. If, in ether narcosis, the patient is kept in as perfect a stage of surgical anæsthesia as possible, there is not enough change in the patient's condition to warrant such a course.

If respiration is deep and regular, the color normal, the jaw in place, and the quality of the pulse good, one may be certain that the rate of the pulse and that the pupils are right, invariably. While we know the importance of carefully watching the patient and the effects of the anæsthetic, there is a certain class of operations where we find it quite as necessary to keep as close a watch as possible on every step of the operation. Such are operations on the stomach. We give one eighth of a grain of morphine fifteen or twenty minutes before the operation. The patient is given enough of the anæsthetic to produce surgical anæsthesia, and, as soon as the stomach has been examined and the method of operation decided upon, the anæsthetic is withdrawn entirely in the majority of cases, the surgeon being able to continue the entire operation, enough of the anæsthetic being given to close the incision. In these cases there are two things we watch closely: the rolling of the eyeballs, as advocated by Frank Simpson as one of the signs of returning consciousness, and swallowing, which is often followed by vomiting, the latter being a call for more of the anæsthetic. Patients are almost conscious many times, but the stomach is not sensitive, and thus we are able to get through the operation and avoid vomiting with a minimum amount of the anæsthetic. We find no class of cases poorer subjects for anæsthesia than stomach cases, and therefore careful watch of every detail is essential. While we give less anæsthetic in this class than in any other, it is with these cases that we have most of our pneumonias, and in this connection I quote the following from Mellish:

"Lung œdema is present, during the administration of ether, and for several hours after, and it increases the possibility of hypostatic and aspiration pneumonia. Embolic pneumonia occurs independently of the anæsthesia. The embolus may be septic, as from thrombosed veins contiguous to infections of the pelvis or lower extremities, or they may be non-septic and produce infarcts which become infected. Many of the pneumonias are probably due to infection from within or to autoinfection. They occur after local anæsthesia as well as after general. Gottstein was one of the first (1898) to report lung complications after cœliotomy under local anæsthesia. From the Breslau clinic of Mickulicz he reported 27 cases of lung complications following 114 cœliotomies, while in 119 cœliotomies in the same clinic under general anæsthesia, there were but 7 cases. However, the majority of the graver cases were operated on under local anæsthesia."

It has been said that anæsthetists find it difficult to become efficient in the administration of both ether and chloroform. Often one who can give ether well is not as competent in the use of chloroform. While we may never have specialists for each individual anæsthetic, it is well to administer all, for often in those hospitals where chloroform is the anæsthetic of choice and the same anæsthetists have the privilege of being in constant practice, it is these experts who will be forced to resort to artificial respiration frequently, and occasionally have a death from the drug, and will even then continue its use as the chief anæsthetic. It is from such examples that the fanatic on ether takes warning. A very large proportion of deaths from chloroform anæsthesia have occurred with minor operations (Hewitt). Death often occurs in chloroform narcosis among the vigorous, as well as the weak patients, while ether is practically safe among the vigorous.

It is interesting to note that in Lyman's collection of anæsthesias (393 in number), 30 deaths occurred under chloroform for the removal of teeth, still dentists as a rule are much in favor of chloroform. We often see a surgeon, who has used chloroform for years as the chief anæsthetic, but on a later visit we find this same surgeon using ether as the anæsthetic of choice. It is needless to ask why the change has been made. Surgeons, as a rule, think they know how to administer chloroform especially, but one finds few good surgeons who are good anæsthetists. Chloroform is pleasanter for them as well as their anæsthetist: and, as mentioned in a previous paper, it requires more skill to administer ether properly, and the surgeon has not the patience to wait for each interne to learn to give ether. Nearly all fatalities on the operating table, due to anæsthetics, are from chloroform, either mixed with some other anæsthetic or given unadulterated. Often the anæsthetist will say he has been giving ether mainly, and perhaps he has, but on investigation one will find the chloroform bottle has been disturbed. Public opinion is so much in favor of ether that if accidents in its use do occur, the surgeon will not be blamed, and it is to his interest as well as to that of the patient, to see that his anæsthetist becomes proficient in the administration of all anæsthetics, especially ether. Aside from cases of acute cold it is surprising how very seldom chloroform is used.

As soon as the patient is on the table, it should be seen that the mouth is free from false teeth or foreign bodies. The hands are fastened loosely at either side of the patient or across the chest with a wide gauze bandage, to prevent the arms from falling over the sharp edges of the table, which often causes musculospiral paralysis. A thick pad of moistened cotton is placed over the eyes to protect them from the anæsthetic. The inhaler used is the improved Esmarch mask with two thicknesses of stockinette; the mask should be boiled and the stockinette changed after each patient. In the administration of ether we commence with the drop method, as slowly and as carefully and with as much air, as though we were using chloroform, and continue until the patient's face is flushed. We then add a few layers of surgeon's gauze, and give ether a trifle faster until the patient is asleep. We then remove the gauze and continue with the same covering as at the start. After complete narcosis, it is surprising how little ether is required to keep the patient in a perfect state of surgical anæsthesia. If there is any rigidity, the patient is not fully etherized. Cutaneous sensibility may be tested by pinching the skin. The indications thus obtained are often more reliable than those obtained by touching the conjunctiva, the latter being dangerous, and often infecting the eye.

Every patient is entitled to the undivided attention of the administrator: and even though it be called suggestion, at any rate it is well for the anæsthetist to make suggestions that he knows will be pleasing to the particular subject. We have only one rule, and that is that the patient is not allowed to talk. Experience has taught us that where there are set rules to follow, such as counting, or breathing deeply, it takes longer to compose a subject, and, when talking is allowed, patients are more likely to become noisy and boisterous. During the administration of either ether or chloroform, the patient should be prepared for each stage of anæsthesia, with an explanation of just how the anæsthetic is expected to affect him, and undivided attention should be given him. In fact, he should be talked to sleep, with the addition of as little anæsthetic as possible. It is surprising how much comfort and help this little attention is to the majority of cases, and how quickly patients submit, thus doing away with that horrible anxiety and fear, characteristic of so many operating rooms. As pointed out in a previous paper by the writer, patients are noisy, grunting, straining, etc., in gall bladder work, as contact with the diaphragm causes an irregular respiratory rhythm, and this is often mistaken to indicate more anæsthetic when, more often, it is just the contrary. If patients have already reached surgical narcosis, this irregular breathing and grunting do not interfere with the surgeon, and it is wholly unnecessary to increase the amount of the anæsthetic.

Any manipulation of the diaphragm or sphincter muscles will produce the same symptoms in all cases. In acute peritonitis some patients require almost a dangerous amount of anæsthetic to produce relaxation of the abdominal rigidity, and, in these cases, it is very essential for the safety of the patient to proceed slowly with the anæsthetic. Respiration is often interfered with, the tongue falling back and depressing the epiglottis. Should any of the symptoms arise during the administration of an anæsthetic, all that is needed usually is to bring the lower jaw up and forward, and, instead of using tongue forceps, to catch the tongue with a piece of gauze, and to draw it upward and toward the nose, at the same time withdrawing the anæsthetic. With the head turned to either side, and with an extra piece of gauze, one can easily wipe out the mucous in the throat when it becomes troublesome.

The general method of giving chloroform is quite like that of ether, giving it in less quantity and with more air, and, as Dr. J. E. Moore advocated, with the regular drop. Chloroform should be given slowly and carefully, the pulse being taken at the facial or temporal arteries. Allow neither patient nor surgeon to hurry you. Stop inhalation as soon as the patient has reached surgical anæsthesia, giving just what is needed, and not a drop more. Always try to prevent struggling and, when it does occur, withdraw the chloroform until the patient is quiet, as struggling will produce deep inhalation, and hence danger. It is of the greatest importance to watch the respiration which may become irregular. When giving chloroform, should there be any embarrassment of respiration whatever, it is always considered serious, and should receive immediate attention and be followed by a prompt withdrawal of the drug. The pulse often misleads the inexperienced anæsthetist. It may become weak just before vomiting, when one might think there was less need of the anæsthetic, but really more is called for, while a thready, intermittent pulse indicates trouble. The eyes may give warning of danger. A rapidly dilated and fixed pupil always indicates danger, while a pupil, contracted to a normal size or a little less, indicates surgical anæsthesia.

The color of the mucous membranes is important, as shown by lips, ears, and nose. One should watch all of these symptoms and not rely on any one of them. In giving chloroform to children, I never feel safe when the child is profoundly asleep, and I try to avoid that condition, aiming to keep it as nearly as possible in moderate anæsthesia. With an unsatisfactory pulse or respiration, give plenty of air. By doing this, anæsthetists will find little use for strychnine and the other drugs often resorted to.

If the patient is properly prepared for anæsthesia, and the anæsthetic is administered properly, by the drop method, etc., vomiting is reduced to such insignificance, especially in the operating room, that it is hardly worthy of mention. At St. Mary's Hospital we give nitrous oxide gas in many short, minor operations, but personally I prefer primary ether anæsthesia, as it seems to be more satisfactory in every way.

There is much yet to be learned about anæsthetics and their administration. To the anæsthetist there is little, in a financial way, to be hoped for. Is it strange that there are so few who will be faithful to the work long enough to gain sufficient experience in what all surgeons know to be a most important factor in the operating room? There is little that is attractive or encouraging therein, unless one cultivates a fondness for the work, and is determined to become as proficient as possible in an art both difficult and important.

DELIRIUM TREMENS.*

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Delirium tremens is one of the most interesting manifestations of the effect of the long continued abuse of alcohol upon the nervous system. Under ordinary circumstances, an unfortunate person afflicted in this way, brought into a hospital, is the recipient of anything but sympathy and the proper care which his grave condition deserves. He is usually passed along from the visiting physician to the resident, from the resident to an attendant, and eventually is left alone by that functionary to get along as best he can, to wear off his spree Unfortunately, too many cases subjected to treatment of this kind, being worn out and exhausted, perish through lack of care. If it were but thought for a moment what delirium tremens is, a manifestation of it might lead to the better treatment of unfortunate patients of this class, both in hospitals and in private practice.

It is necessary in the first place for the appearance of a condition of affairs of this kind, that the subject should have been addicted to alcoholic excesses for a sufficient period of time to have allowed the alcohol to produce its two effects, sclerosis and steatosis, particularly of the brain, of the cord, and of the nerves and arteries in general and of those pertaining to the kidney in particular. It is not necessary that the effects herein mentioned should be visibly evident, but it is necessary that they should be there, whether they give evidence of themselves or not.

It is necessary, furthermore, for the production of this condition, that the person liable to be affected thus should be endowed with a markedly prominent nervous diathesis, or what might be termed a naturally superabundant quantity of nerve force.

Given these two factors, no matter whether the person be of a plethoric diathesis, of a nervous diathesis, of a gouty or rheumatic diathesis, it is necessary, in addition to these two qualities, that he be subjected to some shock. It is not necessary that the shock, as such, should be severe. The more severe, of course, the more liable is the person to have this condition of affairs set up. The less severe the shock, and the more prominent the alcoholic condition, the more liable is the person to be subjected to delirium tremens, and this shock must not be taken in its ordinary restricted sense. Anything which is capable of creating a jar to the already diseased nervous system can cause the disease to supervene. Surgical injuries, from the slightest to the most severe, are capable of producing it, and indeed it may be said that surgical delirium, with very few exceptions, is nothing more than a manifestation of delirium tremens. Persons who are in a susceptible condition, and who are subjected to the action of disease of any character, not infrequently have it. Persons who are weakened in body and strength, and are subject to cold or disease of any kind, frequently suffer therefrom, and debilitated persons, who are just recovering from, or are in the midst of an alcoholic spree, are very frequently the most liable to be the victims of an attack.

As regards the disease, we recognize in the first place its premonitory symptoms: Indefinite in character at the outset, attended with a total disarrangement of the gastrointestinal tract, there is marked nervousness as to movements and muscular action; inability, to a greater or less extent, to sleep; a feeling of dread, and terror of impending calamity; manifestations of delusions, illusions, and hallucinations, which under ordinary circumstances may for the time being be quite promptly dispelled; a total inability to rest quietly under any circumstances; a desire to be in constant movement of some kind; and this state of symptoms lasting for a period of a few hours up to at least twelve hours or more. In usual circumstances, we often find, after a short period, supervention of what may be called the real delirium tremens; an increase of all the symptoms heretofore mentioned, in which marked symptoms of delusions, illusions, and hallucinations, and marked muscular action are coexistent, and with the carrying out, to the most remarkable degree, ideas and fancies; an inability to remain quiet, in so far as the brain and muscular system are concerned, for any period of time; with a peculiar characteristic tremor, particularly of the muscles of the upper portion of the body, and especially of the tongue, face, and upper extremities; marked illusions, pertaining to the sense of hearing, the sense of sight, the sense of touch, and the sense of smell; a ramification, throughout the entire system, of symptoms of extreme dread and terror. At the same time, when properly brought about, there-is a remarkable clearness of mind, which in a few minutes is obliterated with a return of the delirium; an attempt on the part of the patient, caused by fear and dread, to do anything, to commit any act, good, bad, or indifferent, in order to get away from the evil or the supposed impending trouble hovering over them, and, in this condition, very frequently to commit acts of violence, both as to one's self and as to those surrounding them. After a period of time varying from twelve hours to three, to four, to five days, this period of full blown delirium is stopped by the supervention of a remarkably profound sleep, due to an already exhausted brain and nervous system. From this sleep, the patient usually comes, clear headed but weak, exhausted, and as one recovering from a severe, protracted, ordinary illness. On the other hand, if the person afflicted with delirium tremens has a debilitated constitution, and poor health, we frequently have the violent stage gradually and slightly, as it were by lysis, pass into a stage of typhoid delirium, where the movements of the muscles are not as pronounced in manner as in the active stage, and, by reason of the lack of physical force and the exhaustion present, are but phantoms, so to speak, of their previous conditions. The delusions, illusions, and hallucinations of this stage are milder in degree and kind, but partake of the same nature. The muscular movements are also milder in character. The gastric and all other symptoms, present in the first two stages, are still present, though modified to the weakened and exhausted condition. The patient loses control in time of the sphincters of the body, the delirium and the mental derangement gradually continue, and we have partial evidence of on coming coma, which in time gradually increases to that of complete coma, and death eventually ends the scene, due either to the watery compression of the nervous tissues of the body and of the brain, or to the supervention of cerebral hæmorrhage as a result of the congestion of the bloodvessels of the brain. In connection with the symptoms herein noted, one of two prominent factors ought to be mentioned, one of which is the promptness, no matter how severe the patient's condition may be, with which his mind responds to commands or to questions addressed to him. Not only is the mental action prompt, but the physical effort, which may or may not be dependent for its success upon his bodily condition, is likewise prompt, wherein this condition is in marked contrast to that which is the result of disease of the brain itself or of its appendages.

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* Read before the Washington Medical Society.

The second factor is the marked prominence of fear, underlying all the actions in a person so affected. A third factor is a modification of the delirium to the nerves, characteristic of the patient as such. If the person be of the educated class, his delirium is thereby modified; if he be of the illiterate or semi-educated class, his delirium varies accordingly. If he is naturally of an athletic build, his actions are markedly indicative of this condition; and if, *per contra*, he is usually of delicate constitution, the delirium and its characteristics reflect it. Another prominent factor connected with this delirium is the effect which his occupation and environment have upon the patient at the time when he happens to be seized. The writer has been struck with the fact that so many persons engaged in intellectual, as well as physical, occupation, have in delirium tremens continued their actions of the time they were taken ill. He has known this to be true of gentlemen of intellectual pursuits, of musicians, of artisans of all kinds and descriptions, of professional pugilists, and, in a word, of persons of all degrees and shades of occupation, physical or intellectual.

Another peculiarity of this delirium is that it is remittent in character; at times, violent; at times, somnolescent. No matter what may be the state or degree between these two extremes, at no time in the delirium is the patient's condition such, but that with a sharp answer or command he can be aroused and made to understand clearly and distinctly the questions addressed to him. At times in the delirium it is not infrequently accompanied by a marked rise in temperature, and the rule holds good, here as in other diseases, that the more marked and higher this characteristic, the more dangerous is the situation. We have the pulse proportionate to the temperature, and a characteristic respiration throughout the disease in all its phases.

Another peculiarity in this delirium is the inability to appreciate pain, whether severe or mild. It seems that the supervention of this condition is sufficient, for the time being, to mask it. We find that persons who have been subjected to severe surgical injuries, such as fractures and wounds, which under ordinary conditions would produce a marked degree of pain, when affected with this delirium, complain in no way, and it is only with the subsidence of the delirium that the appreciation of pain supervenes.

With regard to the diagnosis of this interesting condition, it may be mentioned that not infrequently it is confounded with *mania a potu*, or the mania produced by the quick injection of a large quantity of alcohol in a person unaccustomed to such. In these cases the lack of tremor, or the character of the delusions, illusions, and hallucinations, the history of the case or mental condition, the temperature or pulse, and the general condition, if correctly observed, ought quickly to enable one to make a diagnosis. The same points ought to enable one to quickly diagnosticate the difference between delirium tremens and acute mania. The same points ought to enable us to make a diagnosis between this condition and acute uræmia; and, in addition, as before stated, an examination of the entire body of each and every person so affected should be made, to note the possible condition and masked condition due to possible wounds and injuries, particularly fractures of the various bones. Indeed, it might be here repeated that the vast majority of cases of surgical delirium, so called, are manifestations of delirium tremens, the result of a shock from a wound or injury to which the person has been subjected, and that the most prominent causes of delirium tremens are probably wounds and injuries of great or slight degree.

With regard to the pathology of this interesting delirium, it may be said that no person is affected with it, unless they have suffered to a marked degree from sclerosis and steatosis of the general body tissues, particularly sclerosis of the kidney and of the various arteries of the body. On post mortem examination, we find a marked congestion of the membranes of the brain and of the brain itself, particularly the latter, and water is found to a greater or less extent surrounding it, causing pressure upon the brain and the spinal cord; and, if this congestion is sufficiently prolonged and sufficiently severe, we not infrequently find rupture of veins and arteries in various parts of the cerebrospinal system and, as a result, apoplexy. It might be remarked, that in proportion to the degree of the delirium, we find at the post mortem, in so far as eye can observe, very few symptoms. It is only by a microscopic examination of the brain and its membranes, and of the nerves and cord that we find a degeneration, sclerotic or steatotic, of the various ganglionic centres, or, in other words, the beginning of a marked spinal neuritis.

The prognosis of delirium tremens depends entirely upon the condition of the person at the time he becomes so affected. Generally, in a relatively strong person, the first attack is tided over, but in persons who are victims of exhausting diseases, severe surgical injuries, or extensive and exhaustive operations, or who are debilitated by reason of long alcoholic excesses, added to advanced years, and a poor constitution, we find that delirium tremens has a very exhausting effect and rolls up an extremely high death rate. In fact, between these two extremes mentioned, the percentage of mortality ranges all the way from two per cent. to forty-five and fifty per cent.

With regard to the treatment of delirium tremens, it may be said in the first place that the person affected should be given, as far as possible, absolute rest of mind and body, and to properly carry this into effect he should be in a room or an apartment divested of everything except the necessities to his physical well being, and from which has been removed everything that could assist directly or indirectly to the stirring up of delusions, illusions, and hallucinations. In addition, the question of giving rest to a person so affected, who has recently been subjected to severe surgical injuries, and who has been obliged to undergo surgical operations, is a question which is taxing in the extreme. The only thing that can be said in this connection is that the case must be prepared to suit the situation. One thing, generally most conducive to obtaining particular results so far as rest is concerned, is to put the patient in the care of a cool headed, well balanced attendant, who is able to understand the whims and the peculiarities of the patient, and who is able to keep him quiet and at the same time humor him as much as possible. The writer, whether the person was affected by such as the result of disease or of injury, is emphatic in his desire to make use of the good offices of a proper nurse under all circumstances, rather than subject the person, no matter how dangerous he or she may be, to physical force through the agency of straps, or otherwise, to retain him in his bed.

In addition, and as important as rest, may be mentioned food, for none is in more need of proper nourishment than the victim of delirium tremens, and the food administered should be given under the same general directions as to one suffering from typhoid fever. It should be administered and made use of according to his ability to swallow and to retain it. It should be as light and as nutritious as possible, and at the same time should be pushed to the limit of tolerance, and kept up day and night.

Coexistent with food come the regulation and rehabilitation of an almost destroyed process of digestion. Here we are brought face to face with the proper administration of cathartics, agents mild in character, but efficient and at the same time stimulating the gastrointestinal secretions. Here the writer wishes to put in a plea for a very useful and yet, strange to say, not very much used drug, capsicum, which should be pushed to the limit of tolerance; and also to suggest the administration preeminently of cathartics, calomel, followed by salines.

As to the general and nervous systems, there is nothing to take the place of, or to equal, strychnine, administered hypodermically. It is, by reason of the congestion always present, a corrective agent to the venous and arterial stagnation. The writer also wishes to mention the extreme utility of digitalis, which is a physiological corrective of the pathological condition so marked in delirium tremens, and this agent should be pushed with the end to produce, as far as possible, its physiological effect.

Owing to the fact that delirium tremens is a condition of affairs which will go on and expand irrespective of the administration of hypnotic agents, etc., the writer is strongly opposed to the administration of opium, or its derivative alkaloids. He can see no use and no good in their administration other than to ultimately exhaust the already over-exhausted nervous system, and he thinks that in the majority of cases where opium and morphine are administered to produce sleep, they can have but one effect, and that is to cause exhaustion. The sleep which they are supposed to produce is simply that which would come about anyhow in the period of remission, always noted in the delirium. Provided the heart can stand it, and the patient's physical condition is such as to warrant it, the writer has found chloral, properly and judiciously administered, to be an exceedingly effective agent. Due regard must be had to the paralytic effect of chloral on the heart, and when it is necessary to administer the drug it must be guarded in a marked degree by the use of strychnine, supplemented with digitalis.

The writer desires to enter a protest against the administration in this condition of the long list of coal tar hypnotics and their secondary derivatives, and against the administration of so called hypnotic agents in general, among them bromide of potassium; for the reason that he cannot see why these agents, all of them depressing in character, should be made use of as frequently as they are in a condition where the disease is going to run its natural course, according to the physical strength of the person involved, plus the development of his nervous system, plus the individual peculiarities and idiosyncrasies of each patient.

In addition, the writer can see no good, excepting in rare cases, in the administration of whiskey to persons wherein this condition is usually set about and produced as a result of the ingestion of too large a quantity of this stimulant. It is true that not a few cases of delirium tremens supervene by the quick withdrawal of whiskey in a person of alcoholic diathesis, but still there are so many other agents which are stimulant in their character and non-alcoholic in their nature, which produce as good an effect, if not a better, than whiskey, and which at the same time do not, so to speak, add fuel to an already large fire. It is unnecessary to go any further into the discussion of hypnotic agents. It may be said that the less administered in the long run, the better for the patient.

At times, in certain cases of delirium tremens, provided the physical condition of the patient does not contraindicate it, the writer is an advocate of the administration of the cold bath. He has seen in a few select cases of delirium tremens that the administration of this agent, cold water, has been productive of excellent results, but when made use of in a typhoid condition, he finds it a very dangerous procedure. We find in certain cases of delirium tremens the presence of convulsions, and this condition must be treated in the same way in general as those which are a result of uræmia, by sudorifics and the administration of chloral.

The writer desires just here to state that it is a pretty well established fact that there can hardly be a case of delirium tremens unless the person so affected has in a marked degree sclerosis of the kidney, and such a thing as a case of real delirium tremens in a person suffering from parenchymatous nephritis is practically unknown.

During the typhoid stage of delirium tremens, the writer has seen at times some remarkable recoveries in persons who you might think could do but one thing—perish—through the hypodermic injection of digitalis, and he must say, notwithstanding a few statements made heretofore in this paper, that there have been wonderful cases of recovery through the hypodermic use of whiskey.

In conclusion, the writer wishes to make a plea that delirium tremens may be regarded as a manifestation of chronic alcoholism, marked in character, and of such a degree that a person may be said to have his vitality greatly reduced, his ability to resist disease markedly diminished, and, by reasons due to alcoholic causes, to have his life span markedly shortened. The writer has never seen a person attacked in this way who was anything but an easy prey thereafter for diseases of all kinds and descriptions, and who, in addition, was not when examination was made, found to be a victim, in a more or less marked degree, of fibroid kidney.

1221 N STREET, N. W.

A Physicians' Notice to the Druggists of Rome, N. Y.—It is with a deep feeling of regret that we, as physicians of Rome, organized into a city society for the promotion and improvement of the public health and depending on the druggists of Rome to assist us therein, frequently notice in the local press glaring advertisements of cureall remedies. These advertisements mislead the public and react adversely to the object which the local society is (and the druggists should be) endeavoring to promote. We believe the druggists and physicians should cooperate in working for the betterment of the public health, and that such notices in the papers as we refer to are distinctly detrimental to the public health, and that all true pharmacists should see to it that such misleading statements do not appear over their individual or firm signatures. Respectfully submitted as per resolution of the Rome Medical Society. C. A. Frost, M. D., Charles Bernstein, M. D., committee.

Rome, N. Y., November 4, 1904.

PRIMARY NASAL DIPHTHERIA; A PLEA FOR ITS EARLY RECOGNITION AND A REPORT OF THREE CASES.*

By ANNA S. WILNER, M. D.,

NEW YORK.

(*Continued from page 883.*)

Diagnosis.—The main points deciding the diagnosis of nasal diphtheria, are the presence of a discharge and the demonstration of the Klebs-Löffler bacilli. There have been a good deal of discussion and argumentation whether the mere presence of a false membrane justifies one in regarding the case as diphtheria. Some authorities, like Frankel, Hoffman, and Beck (17), are of the opinion that this membranous, fibrinous, or croupous rhinitis is an independent disease having an ætiology and peculiarities of its own; and that even if the bacilli of diphtheria are found in the discharge, their presence should be regarded as a coincidence and not as the cause of the membranous rhinitis. Dr. St. Clair Thompson (18), after reporting a case of this kind, goes so far as to make the statement, that many similar cases have been investigated lately and they all seem to have the peculiarities of having no systemic symptoms and of not being the cause of infection in others. I have already cited some instances with severe and even fatal systemic symptoms, and, to show that these mild cases have also caused infection of varying severity in others, I will quote some of the numerous cases.

Concetti (19) reports a case of a child who had a chronic nasal discharge for months, and from whom four others became infected. The first child afterwards developed paralysis of the pharyngeal muscles. Somers (20) reports one patient who communicated the disease to two others; one of them dying of croup. J. M. Hunt (21) reports a case where a child, ten years of age, had the so called fibrinous rhinitis for eight weeks, and in the mean time one of the servants in the house suffered from what was thought to be amygdalitis and another child died of croup. I am sorry that space does not permit to relate other cases, all very interesting.

There is a small number of cases of membranous, or rather exudative, rhinitis due to mechanical and chemical irritation from the use of the cautery or the inhalation of strong ammonia vapors, and not to the action of germs. But the history of the case would clear the diagnosis immediately.

Again, it is true that other germs, most frequently together with those of diphtheria, or occasionally alone, are found in the discharge of fibrinous rhinitis, as in a case reported by Zendiak (22), where fibrinous rhinitis appeared as one of the symptoms of toxæmia caused by shaving, and where the bacteriological examination showed the presence of staphylococci only. But one must remember that clinically it is impossible to distinguish to the action of which particular germ a case of membranous rhinitis may be due; and the consensus of opinion of recognized authorities, like Baginsky (12) and others, is that all cases of fibrinous rhinitis should be regarded as diphtheritic, until the opposite is proven by a competent bacteriological examination. One should not be satisfied with a single examination if the result is negative, as in the first place there is always a possibility of the germs having been overlooked, or of some mistake having been made in the rather difficult technics of searching for the bacilli; again, owing to the anatomical peculiarities of the nose, the germs may be lodged and remain in one of its recesses for some time before they travel down within the reach of the swab, and, therefore, repeated examinations should always be made. Dr. Gorn, of Brussels (23), made four examinations in one case before finding the bacilli; Concetti (19), also, reports a case of nasal diphtheria where no bacilli could be found during the first two weeks. Czemetschka (24) even reported a case of an infant who died from nasal diphtheria and where no bacilli were found during life, but were demonstrated in a culture taken at the autopsy.

Another argument offered against pronouncing a case of fibrinous rhinitis as true diphtheria, even when the Klebs-Löffler bacilli are present, is, as it has been mentioned above, that the bacilli are not always of a virulent nature. Park (25), for instance, reports six cases, in all of which the germs were not virulent; and Abbot (26) reports two cases in two sisters, of whom one had probably contracted the disease from the other, and where the bacilli were of a virulent nature in one, and non-virulent in the other. In view of this, some authorities, and Baginsky (12) is one of them, are of the opinion that, only those cases should be regarded as true diphtheria where the virulence of the germs is proved by the appearance of the characteristic lesions in the animals inoculated by them. While I am not prepared to comment upon the value of these points of distinction, yet, even if true, they seem to be too impractical for every day use and, moreover, if a case of inflammation of the pharynx, larynx, or any other mucous membrane is regarded as diphtheritic, whenever the presence of Klebs-Löffler bacilli, *irrespective of their virulence*, is demonstrated, why should it be different when the nasal cavity is in question?

It is true that most of the cases run a mild course, but is it not a known fact in medicine that, in the first place, the mild cases of all contagious diseases can cause infection of a severe nature in others, and in the second place, that the severity of the disease does not always go hand in hand with the virulence of the germs causing it, as the clinical picture of the disease depends upon so many other factors. Edwin Klebs (27), one of the discoverers of the specific germ of diphtheria, stated that it is possible to have a true diphtheria without any toxic symptoms, and, by the way, he also said, without any membrane. It is interesting to mention the fact that out of several hundred cultures taken by the New York board of health, the most virulent bacilli were found in a boy, who had but a mild sore throat (28).

So whether the germs of nasal diphtheria are all of a virulent nature or not, since it has been proven beyond doubt by numerous cases that this mild affection can spread and even prove fatal in the same individual and, more frequently, cause infection in others, it should be regarded as true diphtheria and treated accordingly.

The diagnosis has to be made from ordinary rhinitis, or coryza, from exudative rhinitis caused by the use of cautery snare or strong chemicals, from nasal eczema, and from syphilis. Though the presence of the Klebs-Löffler bacilli always decides the question of the diagnosis, still there are some clinical features, which point to one or the other of the above enumerated affections. A simple rhinitis may fill the nostrils with inspissated mucus and give it the appearance of a false membrane; but the mucus can be easily removed, and a healthy looking membrane will be exposed, whereas, if a diphtheritic membrane is detached, an angry looking or a bleeding surface will be revealed. Bretonneau (29) remarked that the presence of one or two enlarged glands and redness of the upper lip on the same side were the pathognomonic symptoms of nasal diphtheria; as in simple rhinitis the glands are not affected and the redness, if present, is bilateral. The redness of the upper lip due to coryza is usually bilateral, and this is an important point. The significance of the presence of enlarged glands as a pathognomonic symptom cannot be accepted off hand. In the first place we have seen that the glands are generally not swollen in the pure nasal diphtheria, and some even say that they are never so; again so many of the children often have their submaxillary glands enlarged, not because of diphtheritic or simple rhinitis, but because of their poor health.

The history of the case would show whether the membrane is due to the use of any of the mechanical or chemical agents or not. If we have a case of ordinary eczema, there may or may not be a nasal discharge, and the crusts will be thicker, there will be no false membrane, and the mucous membrane will not have a denuded appearance. Now as to the diagnosticating nasal diphtheria from syphilis: though the picture of syphilis is so different from that of nasal diphtheria, still the diphtheritic false membrane has been taken for mucous patches, and cases pronounced to be syphilis. Dr. Jervey (30) reports a case of a woman, who had nasal diphtheria; but the diagnosis of syphilis was made and she was kept on specific treatment for three weeks. Dr. Cartaz (31) relates a case where a man had a nasal discharge and false membrane for about a month, and was treated for syphilis, on the ground of an infection twelve years previously, but no improvement followed. A bacteriological examination showed the presence of diphtheria bacilli; antitoxine was given, and the symptoms disappeared. A mucous patch may once in a great while be situated within the nasal cavities. But the history, if any can be obtained, and other symptoms, if present, would help us to determine whether it was syphilis or not; however, in view of the often difficult diagnosis of syphilis and the easy and sure one in diphtheria, the only and best way to make a correct diagnosis here, as well as in the other instances, is by making a bacteriological examination of the discharge.

Course.—The course of this disease is as a rule mild, but prolonged; patients recovering within the period of a couple of weeks to a couple of months. It is very very rarely that they are septic and they then terminate fatally within a very short time, as we saw in those reported. These are usually instances of mixed streptococcic and diphtheritic infection. Of the complications liable to set in, the spreading of the infection into the pharynx and the larynx are probably the most common. It has also been known to spread toward the eyes, the ears, and even the skin, or rather a wound or an abrasion of the skin (4).

Paralysis of the pharyngeal muscles, and sometimes of those of the extremities, is liable to occur as a sequela in these cases as well as in the severe ones, but nearly all terminate favorably.

Another possible, though rare, complication is the occurrence of severe hæmorrhages, which may even prove fatal, especially in a hæmophilic.

Erysipelas has also been known, but still more rarely, to develop in connection with the excoriation. Albuminuria may be met with, but only as a symptom of some of the complications. The membrane usually disappears without leaving any destructive changes, but once in a great while there have remained perforations and adhesions within the nasal cavity, and on the soft palate, where the infection had spread. Wagner (32) reports a case of nasal diphtheria where the sæptum and soft palate became perforated, Ballard (33) one where adhesions between the sæptum and turbinated bones were formed. Baumgarten (34) relates a case where ulceration of the sæptum was the result of nasal diphtheria.

All these complications, except those extending towards the pharynx and larynx, and the appearance of the postdiphtheritic paralysis, are all matters of very rare occurrence.

Prognosis.—It would not be fair to judge as to the prognosis of primary nasal diphtheria from the severity of most of the cases reported, as usually only those that become very severe come under the physician's observation, and only very seldom the mild ones. But taking into consideration the course of all the cases, the prognosis is very good; still it should be always guarded, as there is a possibility of the infection spreading and becoming more or less troublesome, and sometimes even fatal. The occasional possibility of the various complications setting in, should also be borne in mind.

Treatment.—In considering the treatment of the disease we will take up the prophylaxis first. Here again we will not go over the different prophylactic measures known to be of great importance in all the infectious diseases and especially in diphtheria, as they remain the same in all, no matter what part of the body is affected; but we will take up those specially concerned with nasal diphtheria. The importance of attending to all the diseased conditions of the nasal mucous membrane. Many of the pathological conditions of the nose could be very much ameliorated, if not altogether cured, by washing the nose with common salt, thus keeping it clean and preventing congestion. The more serious cases, of course, will call for more elaborate treatment and operative interference. The nasal catarrh so often present in other infectious diseases should be looked after, as we saw that these circumstances favor the development of nasal diphtheria. In cases of diphtheria of the throat, the nose also should be douched, as the germs are apt to become lodged in the nasal cavities and later on give rise to diphtheria. Abel (35) reports a case where a child, fifteen days after recovery from diphtheritic sore throat, had nasal diphtheria.

Cases of ordinary cold should not be neglected. Cases of protracted nasal discharges, accompanied by redness of the upper lip, should be regarded with suspicion, whether the general condition of the patient is good or not. A culture should be taken and so the exact nature of the affection found out. Fortunately the times are over, when the examination by the board of health was a *bête noire* in the public mind, and at the mere mention of it, the patient or friends of the patient imagining the ambulance coming to take the patient away, would object to the taking of the culture and even would often look for the services of another physician who could tell right on the spot what is the matter with the patient. Now most people realize the good intention of such and similar examinations, and will willingly submit to the procedure. Even with the most obstinate ones an explanation of the purpose of the examination will be sufficient, if the physician is only willing to take the pains.

Children, in schools and kindergartens, suffering from protracted colds should especially have a culture taken and examined. If children applying for admittance to the hospital, it matters not for what trouble, have a nasal catarrh, a bacteriological examination of the discharge should be made, and this would be one way to prevent the outbreaks of diphtheria, which now and then occur in the hospitals. Dr. McCollum (1) reports a case which is interesting in this connection. A child, feeling sick but having no special symptoms except rhinitis, was admitted to a hospital. As no other symptoms developed, the rhinitis aroused suspicion, and only on the fourth day after his admission the diagnosis of nasal diphtheria was made. All this time there this patient had diphtheria in a general ward, exposing the patients, nurses, and doctors to the infection. Were there a routine of making an examination of every child having nasal catarrh on its admission to the hospital, such a thing would not have occurred. This child, by the way, after having been transferred to the hospital for contagious diseases, developed laryngeal diphtheria and died. Contrary to the motto of our sister profession of law, that it is better to spare ten guilty ones than to punish one innocent one, it seems to me that it would be safer for the medical profession to regard as possible diphtheria ten cases of only suspicious rhinitis until the exact diagnosis is made than to allow one case of nasal diphtheria at large.

(To be concluded.)

Matteawan, N. Y., Rejoices.—Matteawan is expressing pride in the success of her first woman physician, Dr. Phoebe Van Vlack Doughty, who recently graduated at the University of Michigan with honors and has lately qualified with distinction in New York State.

OBSERVATIONS ON A SERIES OF TEN CASES OF DISABILITY OF THE SHOULDER JOINT.

By HAROLD W. JONES, M. D.,
AND
NATHANIEL ALLISON, M. D.,
ST. LOUIS.

During the past year there have come under our observation ten cases of disability of the shoulder joint. The uniformity of the symptom complex in these cases has been so striking that we feel justified in placing them in the same class, notwithstanding the fact that the original diagnosis varied from paralysis to dislocation. Not all the cases were seen at the same stage of disability, but in some an opportunity was afforded of observing the progress from its onset. From the latter we are led to believe that the disability presents three distinct phases, acute, subacute, and chronic. From the latter, also, we have been enabled to recognize and classify the cases seen first in either the subacute or chronic stage.

In the majority of these cases, especially the ones seen early in the series, radiographs were systematically taken, in order that the pathology of the affection might be as clear as possible. In no case was any change observed in the bone or in the joint surfaces.

In acute cases at the onset the patient suffers with extreme pain referred almost invariably to the point of the shoulder and radiating down the arm or across the scapula. Tenderness is very marked at the point of the shoulder and along the bicipital groove. The arm is held close to the trunk and motion is much restricted. There is marked muscular spasm of the shoulder girdle and any attempts at motion cause exquisite suffering. The pain is apt to be worse at night and the patient gets very little rest. The temperature is usually not elevated.

In the subacute stage the pain is much less, and is produced only by attempts at motion. Motion is still restricted and the disability is practically complete.

In the chronic stage acute pain has disappeared and the prominent features are atrophy and stiffness, motion in abduction being usually but a fraction of the normal. The patient uses the arm chiefly through increased rotation of the scapula which moves with the humerus as one bone.

The foregoing is, very briefly, a clinical picture of the affection we wish to describe.

CASE I.—L. B. S., man aged fifty years, of sedentary life, employed in office work, dates the onset of his trouble from reaching upward and backward to press an electric button in a street car. He experienced slight pain at the time in the right shoulder. In two days the shoulder became very painful and sensitive and he sought surgical advice. He was anæsthetized and the shoulder "manipulated." A plaster bandage was applied, the arm being held in extreme adduction, with the hand on the opposite shoulder. The position became so painful that he decided to seek other advice, coming under our observation four weeks after the onset of the trouble. The physical examination then showed a poorly nourished man, whose face bore traces of severe suffering. Examination of the shoulder showed extreme tenderness over the point of the shoulder and along the bicipital groove. All motions, especially abduction, were limited to a small fraction of the normal. Muscular spasm was very evident and atrophy of the deltoid slightly apparent.

Treatment.—The arm was put at rest in the most comfortable position with a light Velpeau bandage. A radiograph was also taken at this time, which showed no pathological change. In a month of partial fixation the acute symptoms subsided. In the first few days, several doses of aspirin were given, principally to observe the effect, which proved to be little. At this time there was marked atrophy of the deltoid and biceps, the upper arm being three quarters of an inch smaller in circumference on the right. A leather shoulder support was made and worn for three months, at the end of which time all acute symptoms had disappeared and there remained only ankylosis and marked atrophy. The patient was advised to take an anæsthetic and have the ankylosis "broken up." This, however, he declined, so massage and exercise were instituted. This has resulted in increased motion, due largely to the increase in the rotation of the scapula and muscular adaptation, and not to an increase of motion in the joint itself.

Six months after the trouble in the right shoulder began, the patient, while assisting himself across the street with a cane, had the misfortune to catch the ferule in the pavement. As he stepped forward his arm was pulled forcibly back and he suffered a considerable wrench of the left shoulder; this was followed by a train of symptoms very similar to those experienced in the right shoulder. This shoulder was immediately put at rest in a Velpeau bandage and was not manipulated or rubbed with liniment. The acute stage in this instance lasted but two weeks and the subacute stage was practically absent. No drugs were employed at any time. In four weeks' time the patient was able to use the arm in a restricted manner without pain. The atrophy was not marked, though present. The patient still refused manipulation under ether, but was faithful in massage and in active and passive movements and at the present time, one year since the trouble began in the right shoulder, he is able to use both arms without pain. The left arm allows much more motion than the right.

CASE II.—P. R., a man sixty-two years of age, with a history somewhat indefinite. He remembers that three months ago he slightly "strained" his shoulder while reaching for something He has had no occupation recently. For the pain, which has been more or less severe and which has been increasing, he has taken some medicine and used various applications, using the arm as much as he was able to in the meanwhile, under the impression that exercise would limber it. Examination showed a shoulder of nearly normal external appearance, slight atrophy of the upper arm and deltoid being present; considerable muscular spasm and pain on motion, especially on attempts at abduction; sensitiveness to pressure over the anterior portion of the capsule and along the bicipital groove. An x ray negative was taken. This showed no bony or tissue changes.

Treatment.—The arm was put at rest in a Velpeau bandage. Aspirin was given on two occasions with little or no effect. At the end of a week the pain was much less and the patient was sleeping well at night. The partial fixation was kept up for a month, at the expiration of which there was very little sensitiveness in the joint. A sling was used for another month. At this point all the sensitiveness had disappeared, although motion was practically nil, but the patient stated that he was satisfied so long as the pain had ceased. He was now instructed to use the arm as much as possible. At the end of another month motion had increased very little and what increase existed was due to increased mobility of the scapula. The patient was then etherized, and, using only moderate force, the arm was put through practically the normal range of motion. The manipulation was attended by a loud tearing sound as the adhesions gave way. After two days in a Velpeau bandage, during which the patient had very little pain, passive motion was begun and at the end of another week, active motions. In six weeks there was two thirds of the normal motion present, and in ten weeks practically normal motion without pain. The patient now considers himself well and he certainly has no disability. The active exercise most depended upon to increase abduction was to have the patient stand with the affected side toward a wall and at arm's length from it. Placing the fingers on the wall, palm down, the patient worked his fingers as high up on the wall as possible. A pencil mark was made at the highest point attained and each day an effort was made to surpass the previous day's record. In this way abduction was very markedly increased daily.

Case III.—M. Q., a woman sixty years of age, the mother of eight children, all of whom are dead. Three years ago had "rheumatism," which settled in her knees. Four weeks ago she "bruised" her left shoulder slightly and since then it has given her great pain. She is unable to do her housework and cannot dress her own hair, and is also unable to get into a comfortable position at night and consequently sleeps poorly. Examination showed a rather emaciated woman with slight evidence of joint disease in the hands. Both knees were normal. The left shoulder showed restriction of motion, especially in abduction. Tenderness along the bicipital groove and over the point of the shoulder was marked. An x ray picture showed a normal joint. A sling was worn for three weeks and at the end of that time there was very little sensitiveness remaining. The patient did not remain under observation, but was seen six months later. At that time there was about one half the normal range of motion present and no acute signs. The patient was advised to have the arm manipulated with a view to restoring the normal motion, but was satisfied with her arm the way it was at that time, so nothing further was done.

Case IV.—A. Z., a man of sixty-two years of age, a pedlar. Two months before he applied for treatment, he wrenched his shoulder slightly while lifting his pack from the ground. For several days he paid no attention to the pain in his shoulder but, as it increased, he sought medical aid and was treated with electricity and massage, as well as with various so called "antirrheumatic" drugs, i. e., aspirin, guaiacol, and mesotan, the latter applied locally. However, he obtained no relief, but, on the contrary, his symptoms increased in severity so that he finally became unable to use the arm at all and was unable to sleep the greater part of the night. While in this condition he first came under our observation. Examination showed a rather emaciated man with strong neurotic tendencies. The only abnormity found was the condition of the left shoulder. The arm was held rigidly against the trunk, practically no motion was allowed, and any attempt at motion caused an outcry. Tenderness was very marked at the point of the shoulder and down the anterior aspect of the upper arm. Considerable atrophy of the deltoid was observed. The biceps was also atrophied. A skiagraph showed an apparently normal joint. His arm was put at rest in a Velpeau bandage and trional prescribed in 5 grain doses for the sleeplessness. After a week the acute symptoms had subsided and the patient rested well at night. The muscular spasm remained and no motion was present in the joint. The treatment, i. e., partial fixation, was continued for two months, the arm being examined twice a week. Improvement was gradual but steady and at the end of this time nothing remained except a stiff shoulder joint with vague pains in the extremity due to non-use. The patient was then anæsthetized and the shoulder put through the normal range of motion. This was accompanied, as in Case II, with a loud tearing sound due to the breaking of the adhesions. The arm was then held fixed for two days, at the end of which time all bandages were removed and passive and active motions begun as described in Case II. A sling was employed during the greater part of the day to afford support. In a week 45 degrees were allowed in abduction without pain. The exercises were continued several times a day and at the present time, two months since the manipulation under anæsthesia, the patient is back at his occupation and considers himself well. There is a slight limitation in abduction and slight atrophy of the muscles.

Case V.—Mrs. M. R., a dressmaker, thirty-six years of age. Two days before she came to us for treatment, the patient reached for a box lying upon a high shelf. At that time she had the sensation of "injuring" her shoulder and several hours afterward it began to pain her. The patient applied liniments locally as well as hot applications. The next day she was unable to do her work and that night she was kept awake by the constant pain in her shoulder, no matter in what position she lay in bed. Examination showed a well nourished woman without abnormity except in the right shoulder. Here motion was limited to about ten degrees. Motion in abduction caused great pain. Tenderness was very marked at the point of the shoulder and along the bicipital groove. There was no obvious swelling of the shoulder and no atrophy. The shoulder was put at rest by securing the arm in a Velpeau bandage. This afforded the patient immediate relief and she slept that night without the use of a hypnotic. When seen the following day the pain had nearly ceased. Motion was still painful and tenderness remained. After a week of fixation the patient was able to begin using the arm and in three weeks practically all the motion returned. There was no atrophy. The patient was told to use the arm cautiously for some time. Since then there has been no return of the trouble.

CASE VI.—Mrs. E. N., aged fifty-eight years. Three weeks before we saw the patient, she fell down stairs severely wrenching the left shoulder. It caused her considerable pain for several days, but she continued to use it as much as possible for about a week. At the end of that time it became so painful that she gave up trying to use the arm. When we examined her there were several bruises upon the upper arm and about the shoulder. Motion in abduction was limited one half, while there was considerable tenderness at the point of the shoulder. The patient was advised to rest the arm and carry it in a sling the greater part of the time. She was not altogether faithful in the treatment, but at the end of two weeks most of the acute symptoms had disappeared. She was then instructed to begin with the exercises already described. In four weeks nearly all of the motion had returned, and the patient considered her shoulder nearly well. She has not been seen since but the presumption is that she had no return of the trouble.

CASE VII.—W. H. R., a physician, aged thirty years. For several weeks before he came under our care, the patient had had slight disability of the right shoulder accompanied by slight pain. He thinks that he injured the shoulder while boarding a street car in motion. He sought to relieve his disability by rubbing and exercise, but the shoulder, instead of responding to this treatment, became so tender and caused him so much pain that he soon lost the use of it altogether. The patient is a well nourished, muscular man, in perfect health with the exception of the trouble in the right shoulder. The shoulder was extremely sensitive and motion was so painful that the patient became faint at the time of examination. Tenderness was particularly marked at the point of the shoulder and along the bicipital groove. Muscular rigidity prevented motion in abduction; in fact, there was practically no motion allowed in the joint. The shoulder was immobilized with a Velpeau bandage. The support gave the patient an immediate sense of relief and he was able to sleep that night for the first time in several days. At the end of five or six days the acute symptoms had subsided sufficiently to allow the arm to be put in a sling. Tenderness still remained and motion was painful. After carrying the arm for two weeks in a sling this was omitted and guarded passive movements begun. There was no painful reaction to this and the patient regained complete use of the arm in another ten days. This case also showed no atrophy nor is there at the present time any reason to believe that the shoulder will again give trouble, although the patient has been cautioned against using it violently for some time.

CASE VIII.—Mrs. A. G., aged forty-eight years. Five months before she was first seen she fell and in attempting to save herself, hurt her left shoulder. She suffered some pain at the time and gradually lost the use of her left arm, although she continued to do what work she could. The patient had been treated by several physicians and under the impression that she had a paralysis, had undergone faradaism several times a week for two months without improvement. The muscles about the left shoulder showed very marked atrophy; indeed, the atrophy of the latissimus dorsi and subscapularis, posterior to the axilla, was so great that a hollow was produced nearly large enough to admit the hand. There was slight tenderness on deep pressure over the point of the shoulder; motion in abduction was limited to one third normal. There was no muscular spasm and no pain on motion, but the disability was marked.

The patient was etherized and the arm forcibly abducted and put through the normal range of motion. This was accomplished with the use of very little force. The arm was then bandaged to the side, and twenty-four hours later, passive movements were begun. At the end of three days, active movements, several times a day, were instituted, the exercises being carried out as in the previous cases. For several days the patient complained of numbness in the fingers, but this soon passed away with increased motion and at the end of three weeks the patient had about two thirds normal motion, although she complained of pain. Motion increased steadily so that in six weeks it was possible for her to reach the top of her head; there was no muscular rigidity and the arm could be rotated freely; neither was there any sensitiveness about the joint, yet the patient complained of severe pain down the arm. This was relieved by suggestion. After ten weeks the patient passed the supreme test by being able to dress her own hair with ease. The atrophy, while still apparent on careful examination, would not be noticed unless attention was called to it, although ten weeks ago it was the prominent feature of the case.

CASE IX.—Mrs. P. C., aged fifty years, a German immigrant, came under our observation three weeks after the commencement of her trouble. While crossing the ocean she reached for a hand rail to avoid falling as the steamer lurched, thus throwing her whole weight upon the left shoulder. Following this her shoulder became painful and stiff. She employed the usual means, rubbing and hot applications to relieve her pain, but the shoulder became worse and finally the stiffness prevented her from using it at all. Examination revealed a well nourished woman with the left shoulder exceedingly painful on attempts at motion, however slight. The arm was held rigidly against the trunk and the elbow was supported by the hand of the opposite side. Extreme tenderness at the point of the shoulder and along the bicipital groove was present. The arm was immobilized in a Velpeau bandage with the result that the acute symptoms were relieved in about a week. After two weeks in a sling, active and passive motions were begun as have been already described. After five weeks she has full use of her arm.

CASE X.—W. B., a physician, aged sixty-two years. Several months before we saw him he had been thrown to the ground by a refractory horse which he had attempted to bridle. This resulted in an injury to the right shoulder. He did not suffer much pain at first, but paid little attention to his arm beyond lamenting the inconvenience it caused him in his professional work. Various diagnoses were made at different times but the shoulder got no better. The patient suffered most at night and it was hard to get in a comfortable position in bed. In the last month the stiffness had become somewhat less, but the arm was still much disabled. Examination showed a well developed muscular man in apparently excellent health. There was limitation of motion in the right shoulder, the motion being only a little over a third of the normal. There was a point of considerable tenderness just below the point of the shoulder, but no muscular rigidity. An x ray negative showed no abnormity in the bone. The patient was advised, in view of his improvement during the previous month, to attempt to increase his motion by daily exercises instead of subjecting himself to an anæsthetic, and if that failed, to have his shoulder forcibly manipulated.

In a recent communication from him we learn that he is now able to reach his hip pocket, which he could not do at the time of examination, but cannot put on his coat without help. He does not suffer pain except when he attempts to make certain movements. There is still some tenderness at the point of the shoulder. He has been advised to have the joint manipulated under ether with a view to securing a normal amount of motion.

ANALYSIS OF THE CASES.

Ætiology.—There is a history of injury in all the cases, but in two or three it does not seem to be a definite causative factor. It does not seem necessary for the injury to be severe, in fact, in some of the cases in which the symptoms were the most severe, the original trauma was so insignificant that it might easily have been overlooked.

In one case only was there a definite history of previous joint disease and in no case had the shoulder joint affected ever been the seat of disease previously. The age in these cases has ranged from 30 to 62 years, but the majority are over 50. Occupation seems to have no bearing as an ætiological factor.

Symptoms.—Pain, slight at first, but gradually increasing in severity, accompanied by a restriction of motion, has been the prominent symptom. The pain has been localized almost invariably at the point of the shoulder, radiating down the inner side of the arm and, occasionally, across the scapula. In the chronic cases the patient has complained more on account of the stiffness and disability than on account of the pain. Sleeplessness and irritability, with slight loss of flesh have been noted in most instances.

Physical Signs.—Swelling was observed in but one case, in the acute stage. In subacute cases some atrophy was observed; in the great majority of instances, while in all those of long standing, a marked degree of atrophy was noticeable. The atrophy involved the muscles forming the shoulder girdle. Motion in the acute cases was limited by the muscular rigidity, while in the chronic ones it was either absent or very much limited by the contractions and fibrous adhesions about or possibly within the joint.

Tenderness, localized definitely at the anterior aspect of the humeral head, and extending several inches down along the bicipital groove, has been present in practically all the cases.

Diagnosis.—The absence of fever and swelling rules out infectious arthritis, while the absence of bony thickening and bone injury, as determined by the skiagraph as well as by examination, rules out the group including the varieties of so called arthritis deformans, that is, osteoarthritis and rheumatoid arthritis, as well as severe traumatisms. That some of these cases were not osteoarthritis in an early stage might be questioned, but the rapidity with which recovery took place, especially after manipulations, led us to conclude that the affection was confined to the tissues about the joint and did not involve the bone or joint surfaces. The pathology was not thoroughly clear, as the cases were none of them operative. The skiagraph showed no joint changes and while this was not proof positive that they did not exist, still the negative evidence is of much value. We are of the opinion that the cases tabulated, which are certainly of striking similarity, are included in that class of joint affections known as periarthritis and should be called periarthritis of the shoulder.

Treatment.—Fixation during the acute stage by means of a Velpeau bandage has been employed in each instance. This should be kept up until muscular rigidity has subsided. It has been our experience that medicine is of little value, although hypnotics have been of some service where marked restlessness existed. The pain has not been severe enough to require morphine in any case. During the subacute stage protection by means of a sling was all that was required. In the chronic stage, manipulation under an anæsthetic, followed by complete rest of the joint for twenty-four to forty-six hours, with graded active and passive exercises so applied as to constantly increase the motion in the joint, was tried in three cases with perfect results, while in those cases, in which manipulation was declined but in which active and passive motion were persistently employed, some increase has resulted, but this has been due chiefly to increase in scapular motion and not to an increase of motion in the shoulder joint itself. It must be remembered that there is some danger in manipulations of the shoulder, especially where the disability has been of long standing and the individual has undergone arteriosclerotic changes. It is conceivable that in some cases, with thick adhesions and friable bones, a fracture might be produced, but with proper care this would be rare indeed. Some stretching of the brachial plexus doubtless occurs during the manipulations, especially where the arm has been held in one position at the side for a number of months, but beyond slight transient tingling in the fingers in one case, we have noticed no evidence of nerve injury following this procedure.

Prognosis.—This depends largely upon the prompt recognition of the nature of the trouble, in the acute cases, and upon the early employment of appropriate treatment. In all the cases seen early the symptoms have subsided quickly and a complete recovery has taken place without its being necessary to employ forcible manipulation later. In the cases which were seen some weeks or months after onset, in which rubbing and active movements had been instituted during the acute stage, the disability assumed a permanent character, therefore it would seem that the chronic stage in this affection could easily be avoided provided the proper treatment were instituted from the start.

CONCLUSIONS.

1. The affection described is apparently the result of traumatism.
2. The lesion is probably circumarticular rather than intraarticular.
3. The affection runs a definite course and, untreated, as a rule, results in permanent disability.
4. In the acute stage, fixation affords complete relief from pain, and, in the majority of instances, freedom from subsequent disability.
5. In the chronic stage, the disability due to the fibrous ankylosis may be relieved by manipulation under an anæsthetic. Much depends upon the patient's willingness and ability to follow out the exercises which constitute the after treatment. About ten weeks' time is required for complete relief from the disability.

Harvard University Plans a School for Nurses.—Dr. Alfred Worcester, of Waltham, has just returned from a six months' trip in Europe, where he was sent by Harvard University to investigate methods of training for nurses, with a view to taking charge of a college for nurses which Harvard is going to establish.

Our Subscribers' Discussions.

A SERIES OF PRIZE ESSAYS.

Questions for discussion in this department are announced at regular intervals. So far as they have been decided upon, the further questions are as follows:

XXXIII.—How do you treat varicose veins of the leg? (Under adjudication.)

XXXIV.—How do you treat internal hæmorrhoids without an operation? (Answers due not later than December 1st.)

XXXV.—What is your experience in the therapeutical use of yeast? (Answers due not later than January 16, 1905.)

Whoever among our subscribers (with the limitations mentioned below) answers one of these questions in the manner most satisfactory to the editor and his advisers will receive a prize of $25. No importance whatever will be attached to literary style, but the award will be based solely on the value of the substance of the answer. It is requested (but NOT REQUIRED*) that the answers be short, if practicable no one answer to contain more than six hundred words.*

Only subscribers to the NEW YORK MEDICAL JOURNAL AND PHILADELPHIA MEDICAL JOURNAL *(including regular and volunteer officers of the Medical Corps of the United States Army, Navy, and Marine Hospital Service, commissioned or under contract) will be entitled to compete, and all persons known to be engaged in medical journalism are disqualified. This prize will not be awarded to any one person more than once within one year. Every answer must be accompanied by the writer's full name and address, both of which we must be at liberty to publish.*

The prize of $25 for the best essay submitted in answer to question XXXII has been awarded to Dr. William A. Groat, of Syracuse, N. Y., whose article appeared on page 836.

PRIZE QUESTION NO. XXXII.

THE TREATMENT OF INSOMNIA.

(Concluded from page 886.)

Dr. John Gilbert, of York, Pa., writes:

No condition, with the possible exception of pain, is so responsible for the acquirement of the drug habit as that of insomnia; consequently, in the following remarks, it will be understood that medication is to be resorted to only where other means have failed, and then in combination with physiological, psychological, and mechanical methods. Such danger, too, is augmented by the continued application of any one remedy; therefore the drug should be varied, and the patient should on no account be apprised of its nature.

It is not the intention here to set forth the relative value of any particular drug or combination of drugs, but to discuss from a rational point of view the treatment of insomnia according to its ætiology.

Symptomatic.—Of this variety, typhoid fever is the best example. Here the insomnia is relieved by the baths, ice cap, and other general treatment; and nowhere is the danger of medication more forcibly demonstrated in the administration of drugs (which by the way are usually depressant) than in this disease. Here physiological mechanical therapeutics should hold eminent sway. As of typhoid, so of the other infectious diseases, although perhaps to a lesser degree; in fact, the same is true of numerous other diseases and conditions.

Simple.—Many cases not otherwise classified are either due to the peculiar conditions in the environment of the patient or may be caused by more or less trifling conditions present within the system. Notable among these is an acid condition of the stomach or a temporary anæmia of that organ. Simple carbonated waters act well in the first instance, by neutralizing the condition, and in the second by a local stimulating effect upon the mucous membrane, thereby inviting a flow of blood to the organ, and thus diminishing the amount to the brain.

Again, excessive heat or disagreeable odors may cause wakefulness. A light, easily digestible meal at bedtime may here suffice.

Lack of exercise may be responsible for a part of these cases, and nervousness (due to fear of sleeping alone) is no uncommon factor. Constipation is often a cause, as is uterine disease.

Excessive sexual indulgence or any irritation of the genitals, such as tight foreskin, smegma, worms, etc., may by reflex irritation produce wakefulness by irritation of the spinal cord. Cold to the spine contracts the vessels of the cord and so relieves the irritation. This treatment is of course temporary, the real cause being removed as soon as possible.

In this connection the fact must not be lost sight of that some individuals require less sleep than others; so that what is pathological in one may be natural in another. Adults require less sleep than children.

Neurasthenia and Hysteria.—These, while far different conditions, may, with some limitations, be here grouped together. Electricity, galvanic and faradaic currents, are said to be of benefit; while the cold spinal douche or ice bag to the spine is of value. Such simple remedies as lupulin, camphor, and the bromides (small doses) in the former, and valerian and a hop pillow in the latter, often accomplish much; light lunch at bedtime, ice to the head, and heat to the feet, dry or moist, or a hot bath at bedtime are efficacious. It is a question if hypnotic suggestion does not do more harm than good; but mental suggestion, especially in hysteria, is often invaluable.

Toxic.—Toxic insomnia is found in those addicted to the excessive use of tea, coffee, tobacco, cocaine, and hypnotics. The treatment is of course begun by the withdrawal of the offending agent. Such hypnotics as chloral, sulphonal, and trional may be temporarily used; but care should be exercised lest one habit be merely substituted for another.

Hot drinks (such as milk or lemonade) at bedtime seem to exert a particularly favorable influence over tobacco insomnia.

In this class are included the toxæmias of lithæmia, gout, and nephritis. The insomnia should here be treated from the standpoint of these conditions.

Pain.—Morphine is the drug that stands out preeminently in the treatment of insomnia due to pain. It may be used alone or in combination with chloral, it being thought to act better so. Hypnal is also said to be beneficial. The cause of pain should be eliminated at the earliest possible moment.

Heart.—Hypertrophy and irritability of the heart, by causing congestion of the brain, are still other factors. Aconite or digitalis, or a combination of these drugs, with cold to the chest, may so relieve the irritability as to allow of sleep without further medication. Sometimes such patients rest better in the semirecumbent posture. Chloral is distinctly dangerous should any dilatation be present, morphine in small doses being probably safer.

Mental.—This variety is represented by such diseases as paresis, melancholia, and acute and chronic mania. While local and physiological measures should not be neglected, such cases require at times powerful hypnotics in large doses. Hyoscine, chloral, and morphine are among these, with sulphonal, trional, and the bromides as adjuvants. Ice to the head and protection of the eyes from strong light often serve to add to the patient's comfort, and thus induce quiet. Attention to the bowels is of immense importance, and gentleness and tact upon the part of the attendants is often productive of the most desired results.

Therapeutical Notes.

Puerperal Fever.—Ovary (of Torna, Hungary) according to *Médécine orientale,* for September 25, 1904, places great reliance on equal doses of quinine sulphate and sodium salicylate in puerperal fever. He gives four and a half grains of each every three hours. In light cases, a few doses check the disease, and the treatment is harmless if prolonged indefinitely. One of Ovary's patients took over half an ounce of the mixture. Ovary believes the beneficial effects to be due to the formation of nascent quinine salicylate, the sodium sulphate being useful also in combating constipation.

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THE COMMISSION BUSINESS IN MEDICINE.

Quite a commotion has lately been stirred up in Chicago by the results of an individual's endeavor to "show up" such of his professional brethren as he could induce to consent to pay him a commission for referring patients to them, he being ostensibly a struggling young practitioner in an obscure Illinois village, but really, as it would appear, a Chicago physician. He is reported to have sent to each one of a hundred eminent physicians and surgeons of that city a letter offering, for a consideration of twenty-five per cent. of the fees, to send the recipient of the letter a wealthy patient for treatment, remarking that he understood it to be customary for such a commission to be allowed. Of the one hundred physicians thus addressed, eighteen are said to have acceded to his request, twenty-six to have refused to do so, and fifty-six to have ignored the matter altogether.

We are glad to note that only eighteen per cent. of the physicians thus trickily approached allowed themselves to consent to the proposal set forth in the letter, and we can readily believe that many even of the eighteen reluctantly suffered the tempter to prevail with them. But, however this may have been, in our opinion they were guilty of aiding to sustain a very reprehensible practice. If the consultant who agrees to such a proposal entertains the slightest intention of so raising his fees as to enable him to appease his colleague and at the same time retain for himself satisfactory remuneration, he is in a mood that may end in his playing the thief. If, under the influence of dread of competition, he yields to the demand for a commission and bears the loss himself, he still does his part in encouraging harpies. From all points of view, therefore, the proposal had better not be entertained.

But it is not the consultant alone that is to be blamed when such a bargain is made; he who receives the commission is equally at fault, and his fault may be a grave one, quite apart from the general turpitude of the system. As the case progresses he may see reasons for loss of confidence in the consultant who at first seemed to him perfectly satisfactory. It is then his duty, we take it, to apprise the patient of his misgivings, but in what position is he to do so if he has already arranged to receive a reward that the world puts on a level with a bribe?

THE CHEAP CLINICAL THERMOMETER.

In our issue for October 22d we published a notable article entitled Inaccuracy in Clinical Thermometers, by Mr. Caswell A. Mayo, the editor of the *American Druggist,* and the article was also printed in Mr. Mayo's own journal. Concerning this article, we said at the time in our editorial columns that it certainly must prove of great value in leading physicians to trust to none but accurate thermometers and in demonstrating to the dealers that they had nothing to lose, but much to gain in reputation, by furnishing such instruments and such only.

Since Mr. Mayo's article was published there has been abundant confirmation of the correctness of our statement. Medical men have recognized the importance of the mistake made in buying cheap thermometers, and so have the more reputable dealers the error of furnishing them. Sometimes there is nothing so potent as the *argumentum ad hominem.* One of the firms of retail dealers, in a letter to the *Druggist,* says: "We first woke up to the inaccuracy of the average clinical thermometer when one of our firm, who had been laid up with pleurisy, found after returning to his duties at the store that according to his thermometer, one of a grade costing us

$7 per dozen, he had quite a high temperature, and this led us to try the instrument on several of our employees, all of whom were found to have fever, thus proving the thermometer very faulty."

But the burden of the dealers' excuses for furnishing untrustworthy thermometers is the craze for cheapness. It is, however, within their own power, provided they have the cooperation of the medical profession, to stop the manufacture of defective thermometers. Let physicians insist on such instruments as are duly certified by some trustworthy institution, such as Yale University or the government Bureau of Standards. To use any other, save as a matter of necessity, is as much of an imposition on the patient as to pass a catheter so weakened that there is danger of its breaking off in the bladder. And let the dealer simply say to his lay customers "We don't deal in trash." The manufacturers can thus soon be brought to terms.

When the rage for the "cheap and nasty" extends to drugs and to instruments of supposed precision it is certainly time to resort to the most strenuous means of snuffing it out in civilized society. What man of sense would trust his life in a carriage to which the horses were bound by cheap and flimsy harness? Most assuredly the use of defective instruments of diagnosis is quite as dangerous, and the sooner the medical profession and the general public realize the fact the better.

THE PHARMACIST OF THE FUTURE.

The physician frequently finds himself disposed, almost constrained, to seek for information from the pharmacist. This is always freely admitted by members of the medical profession. Perhaps it is not the most enlightened physician who oftenest consults the pharmacist, but it is certainly he who profits most by what he learns from his pharmaceutical friend, because he remembers it and has the mental capacity to vary its application to different situations, whereas the medical tyro expects only to be lifted out of a present difficulty, and makes little or no effort to digest the information given to him by the pharmacist. It is not every graduate in pharmacy that is able to make himself of conspicuous service to a well informed physician, but one of our most public-spirited pharmacists, Mr. M. I. Wilbert, the apothecary of the German Hospital of Philadelphia, intimated in a paper presented at the recent annual meeting of the American Pharmaceutical Association his expectation that the training of the pharmacist of the future would enable him to render such service.

An important step toward the realization of this desirable state of things, Mr. Wilbert thinks, would be taken if more were expected and exacted of hospital apothecaries. Specifically, in the matter of new preparations supplied somewhat indiscriminately to hospitals by the manufacturers, if the apothecary were oftener asked as to their probable value, there would be less time unprofitably spent in the clinical testing of the comparatively worthless ones. If the apothecaries came to regard themselves as likely to be called upon frequently for an opinion upon this point, they would naturally prepare themselves the better to respond to the call. We all resort to the pharmacist at times for a hint as to incompatibilities, as to the eligibility of this or that solvent or vehicle, and as to the stability of certain preparations, but it seems very probable that in the future we shall habitually consult him on many additional points. When it comes to be recognized that his advice is in such demand, the schools of pharmacy will see to it that their pupils are specially trained to enable them to acquit themselves creditably, and Mr. Wilbert's aspiration will be realized—an aspiration that is unquestionably shared by many of his professional brethren.

THE PROBLEM OF VENTILATION OF OUR NEW SUBWAY.

The ventilation of our new subway has become a subject which our sanitarians, health authorities, and subway directors must be willing to discuss. Not only must they discuss the subject, but seek to bring about an improvement in the condition at the earliest possible moment. If a single ride in the new subway is productive of headache and nausea when the subway and the cars are new and the latter not yet heated, what will be the result when the weather gets colder and the majority of the passengers want to have the windows closed, which are now open more or less frequently? If after two weeks of use the characteristic odor of badly housed humanity is perceptible in the subway, what will it be after two winter months of heavy travel, with closed car windows? Unless large volumes of fresh air are driven into these subterranean passages and the passenger cars unusually well ventilated to dispel this odor, I fear it will become unbearable to many.

Those of my medical readers whose calling has brought them into the homes of the poor in ill ventilated tenement houses, into crowded prisons or asylums, will recognize this peculiar odor in the subway, and they will also acknowledge the difficulty of getting rid of it. There seems to be a peculiar substance produced by human exhalation which has a tendency to settle on walls and floors unless there is a constant supply of fresh, pure air. This unknown substance, which chemistry has as yet not been able to analyze or define, has an exceedingly unpleasant odor, and since it is productive of nausea to one who comes into it from a fresh atmosphere, it is evidently toxic.

The disproportion of oxygen and carbon dioxide is not alone responsible for the existence of this substance, though, of course, we are all aware of the fact that lack of oxygen in the air we breathe impairs hæmatosis and general metabolism. Breathing vitiated air for any length of time invariably results in real disease. I fancy that during some of our sweltering summer days this odor of badly housed humanity and the lack of oxygen will be still more perceptible and also more detrimental to the travellers in the subway than it is now.

From a bacteriological point of view, our new subway offers still greater problems. Numerous pathogenic microorganisms thrive where there are moisture and darkness; they lose their virulence or become entirely innoxious when exposed to sunlight and air for a sufficient length of time. The grip bacillus, the coccus of pneumonia, and the tubercle bacillus are perhaps the three which are most to be feared when confined to darkness and moisture. According to Koch, for example, the tubercle bacillus can be killed by exposure to the direct rays of the sun in from a few minutes to two hours, according to the thickness of the mass of tuberculous matter exposed. Straus experimented with thin layers of dried sputum, and after an exposure of half an hour the bacilli had lost their virulence and no cultures could be produced from them.

If expectorating in street cars, exposed to light and air, but ill ventilated, must be considered a source of propagation of infectious diseases of the respiratory organs, how much more must this hold good of subway cars, only artificially lighted and moving in an atmosphere deficient in oxygen? If things should go unremedied, I should fear an increase of tuberculous diseases, which, thanks to the energy of the Health Department, we are only just beginning to master. I should also fear an epidemic of pneumonia or grip if a few sporadic victims should travel daily in the crowded subway cars.

Yet, in spite of all these possibilities, it seems to me we should not be alarmed if we could point out to the subway authorities a way to remedy the insanitary conditions, for I am convinced that the company is only too willing to do its very best to increase the comforts of its passengers and protect them and its employees from danger and disease.

With the motive power at hand, pumps or " blowers " could be placed at appropriate intervals over the subway to draw out the bad air and to force in good air at a relatively small cost. These pumping stations, of course, should not be placed in narrow streets, but preferably in squares, small parks, or wide streets. Not to make these pumping stations unsightly, shrubs or trees should be planted about them. The passenger stations, which are so wisely and beautifully constructed to make them hygienic, should not be rendered insanitary by the hanging up of advertisements in frames which render the enameled walls useless as hygienic protectors. Dust, pathogenic microbes, and the undefined products above referred to will be easily removed by playing a hose vigorously along the enameled surfaces. A sufficient supply of well kept elevated automatically self-flushing cuspidors will likewise help in the diminution of infectious diseases of the respiratory organs. The floors of the stations should, nevertheless, be always carefuly cleaned by the aid of moist mops after rush hours. The cars themselves should, at regular intervals, be brought to the surface for the purpose of careful cleaning and exposure to sunlight and air.

For the ventilation of the cars, the system suggested by Dr. Walker, of the Health Department, might be given a trial, for it seems to have advantages. In this system holes open from the "sash deck" toward the roof. Outside the car, between the holes, a shingle extends. As the car moves, the shingle's interference throws the fresh air into the first opening, while circulation forces the impure air out at the second.

Regarding the health of the employees, the company will see that it will be wise to relieve the men, so that they may not become overtired, and that they may be able to be in the sunlight at least for a few hours every day. In fact, I am convinced that it would be a great physical and moral advantage to the men if the Interborough Transportation Company would not only allow, but insist on, the regular interchange of men working on the elevated and subway divisions.

To a passenger who only occasionally rides in the subway, and then for a short time, this whole matter might not be of much importance, but it is of vast importance to the thousands of employees of the company, working all the time under ground, and to the tired shop girl or workingman, returning home after a hard day's labor in an insufficiently ventilated store or workshop. For such a one to live an additional half hour in even more vitiated atmosphere, which may contain pathogenic microorganisms, may become a real danger, and to him the proper ventilation or our new subway means a good deal. Let us therefore hope, in the interest of the company, the employees, and the travelling public at large, for a very early and satisfactory solution.

S. A. Knopf.

REPULSIVE NEWSPAPER ADVERTISEMENTS.

We must applaud our colleagues of Rome, N. Y., for their recent protest against the lying newspaper advertisements of a certain class of "patent" medicines. They invoke the aid of the apothecaries, and very justly, for too often such advertisements bear the seeming endorsement of some local apothecary who may be able to make money by associating his name with them.

THE PARK AVENUE TUNNEL.

The air of the New York subway, concerning which we already hear complaints, is the breath of life itself compared with that of the abominable Park Avenue tunnel. We are aware that at present but little can be done to abate the influx of foul emanations into the trains in their passage through it, but the doing of that little ought certainly to be insisted on. Last Tuesday evening a woman lost consciousness in consequence of the smoke and gases that poured through open ventilators into a New York, New Haven, and Hartford train. No train hand was within call, and at last a passenger closed the ventilators. On Wednesday afternoon a passenger complained of their being open and giving access to great volumes of smoke. The conductor answered that his instructions were to keep them open in the main tunnel, closing them only in the side tunnel. This distinction seems a subtlety worthy only of a corporation bent on tormenting its patrons and, in many instances, on seriously injuring their health. In our opinion it calls for interference by the board of health.

THE AIR OF THE NEW YORK SUBWAY.

Hardly had the subway been opened to traffic when complaints were heard of the foulness of the air in it. Our own impression is that the ventilation is reasonably good, but we are glad to learn that a searching investigation will be made and efforts put forth to remedy such defects as may be found to exist.

THE NEW YORK BOARD OF HEALTH'S PNEUMONIA COMMISSION.

In our issue for October 29th we published a brief account of a recent meeting of the commission in which it was stated that Commissioner Darlington set forth the object of the commission. Dr. Darlington informs us that this was done, not by himself, but by Dr. Biggs, to whom the credit should be given.

THE NEW BUSINESS TELEPHONE DIRECTORY.

We learn that in the forthcoming issue of the New York telephone directory in which the names of subscribers are arranged according to their occupation physicians may, for a consideration, have their office hours and their special line of practice set forth. The proprietors of this directory, while they would probably not deny their readiness to turn an honest penny, would doubtless also maintain that they were meeting a public requirement. It is not to be denied, however, that a directory thus made up is repugnant to many physicians.

News Items.

Society Meetings for the Coming Week:

MONDAY, *November 14th.*—New York Academy of Medicine (Section in General Surgery); New York Academy of Sciences (Section in Chemistry and Technology); New York Medicohistorical Society (private); New York Ophthalmological Society (private); Medical Association of the Greater City of New York; Society of Medical Jurisprudence, New York; Section in General Medicine, College of Physicians, Philadelphia; Wills Hospital Ophthalmic Society, Philadelphia; Gynæcological Society of Boston; Burlington, Vt., Medical and Surgical Club (annual meeting); Norwalk, Conn., Medical Society (private).

TUESDAY, *November 15th.*—New York Academy of Medicine (Section in General Medicine); College of Physicians, Philadelphia (Section in Ophthalmology); Dermatological Society of Philadelphia; Philadelphia Academy of Natural Sciences; Buffalo Academy of Medicine (Section in Pathology); Ogdensburgh, N. Y., Medical Association; Syracuse, N. Y., Academy of Medicine; Medical Society of the County of Kings, N. Y.; Baltimore Academy of Medicine.

WEDNESDAY, *November 16th.*—Woman's Medical Association (New York Academy of Medicine); Medicolegal Society, New York; Northwestern Medical and Surgical Society of New York (private); New York Society of Dermatology and Genitourinary Surgery (private); New York Academy of Medicine (Section in Genitourinary Diseases); Philadelphia College of Physicians (Section in Otology and Laryngology); New Jersey Academy of Medicine (Newark).

THURSDAY, *November 17th.*—New York Academy of Medicine; Brooklyn Surgical Society; Philadelphia College of Physicians (Section in Gynæcology); New Bedford, Mass., Society for Medical Improvement (private); Medical Society of City Hospital Alumni, St. Louis; Atlanta Society of Medicine.

FRIDAY, *November 18th.*—New York Academy of Medicine (Section in Orthopædic Surgery); New York East Side Physicians' Association; Manhattan Medical and Surgical Society (private); Clinical Society of the New York Post Graduate Medical School and Hospital; University of Pennsylvania Medical Society, Philadelphia; Baltimore Clinical Society; Chicago Gynæcological Society.

Changes of Address.—Dr. M. Manley Waterhouse, late of the United States Army, to 316 West Forty-fifth Street, New York; Dr. Harvey E. Schock, to 1134 South Fifteenth Street, Philadelphia; Dr. Francis A. Murphy, to 3008 Richmond Street, Philadelphia; Dr. Francis J. Kelly, to 1636 Walnut Street, Philadelphia.

NEW YORK.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending November 5, 1904:

	October 29.		November 5.	
	Cases.	Deaths.	Cases.	Deaths.
Measles	55	7	70	5
Diphtheria and croup	299	17	304	23
Scarlet fever	165	8	178	9
Smallpox	..	..	2	..
Chickenpox	77	..	72	..
Tuberculosis	358	133	344	150
Typhoid fever	114	16	91	19
Cerebrospinal meningitis	..	10	..	5
	1,068	191	1,061	211

First Aid Lectures.—First aid to the injured lectures are now being given in many parts of the city. Those desiring to participate in them should write to the secretary of the society promoting them, at No. 105 East Twenty-second Street.

Gifts for Nassau Hospital.—The latest gift to the Nassau Hospital is from Mrs. William K. Vanderbilt, Jr., $2,000, to be used for repairs in the kitchen. W. B. Leeds also has given $2,000 to the institution.

New York Medical College for Women.—A Yule-tide festival and fair is to be held at the Waldorf-Astoria, Friday afternoon and evening, December 2nd, for the benefit of the New York Medical College and Hospital for Women. It is to be under the auspices of the ladies of the Hospital Guild.

Manhattan Eye and Ear Hospital.—Ground for the new building of the Manhattan Eye and Ear Hospital, to be erected on a plot of nine lots in Sixty-fourth Street, just east of Third Avenue, will be broken on December 1st. The cost of the structure will be between $350,000 and $400,000. The hospital will be one of the largest of its kind in this country. The building will have a frontage of 118 feet and a depth of 125 feet. It will be five stories high.

Eastern Medical Society.—The section on pædiatrics of the Eastern Medical Society will meet on Thursday, November 17th, at 8.30 p. m., at Clinton Hall, 151 to 153 Clinton Street. Order: Presentation of Cases; paper, Chorea; Clinical and Therapeutical Data, by Henry W. Berg, M. D. Discussion by Dr. Joseph E. Winters, Dr. E. D. Fisher, Dr. H. D. Chapin, Dr. Henry Koplik, Dr. William M. Leszynsky, Dr. D. Robinson, and others. A. Hymanson, M. D., chairman; L. Hirsch, M. D., secretary.

St. Mary's Hospital, Brooklyn.—The regular monthly meeting of the Ladies' Aid Association of St. Mary's Hospital, St. Marks and Buffalo Avenues, was held at the hospital Friday afternoon, November 4th. The meeting was well attended. Final arrangements were made for the fourteenth annual promenade concert and reception, which will be held at the Pouch Gallery, on Thanksgiving eve, November 23rd. This reception, which has for its object the raising of funds for the hospital, is deserving of support; and it is hoped that it will be even a greater success, both socially and financially, than ever before.

Changes at Brooklyn Bridge Station.—The Brooklyn Bridge and Oak Street stations, which have heretofore sent accident cases to the Hudson Street Hospital, have been notified by Commissioner McAdoo that hereafter they will send them to the Gouverneur Hospital at Gouverneur and Front Streets. The commissioner stated that his reason for doing this was that the territory adjacent to the Hudson Street Hospital was so extensive, and that the hospital was nearly always crowded, so he decided to use a hospital nearer the Brooklyn Bridge. Mr. McAdoo also ordered that a resting room be erected on the platform of the Brooklyn Bridge for use in case of accident, or for people who faint in the crush which often occurs. A trained nurse will be in attendance at all times.

The Influence of Preservatives and Adulterants.—On Thursday evening, November 17th, at 8.15 o'clock, H. W. Wiley, chief of the Division of Chemistry, United States Department of Agriculture, will address the New York Academy of Medicine on The Influence of Preservatives and Adulterants in Foods on the Public Health. The following will participate in the discussion: W. Gilman Thompson, M. D.; George L. Peabody, M. D.; Commissioner Thomas Darlington, M. D.; Rowland G. Freeman, M. D.; ex-Commissioner E. J. Lederle, Ph. D.; H. P. Loomis, M. D.; E. E. Smith, M. D., and others.

Medical Society of the State of New York.—The attention of members of this organization, and of the physicians of the State also, is asked to the invitation of the business committee to all who may desire to contribute to the approaching meeting of the society in Albany, towards the end of January next, to communicate soon with one of the committee, since the time is not far off for closing the programme. They desire to make the scientific part of the meeting which is in their hands both good, as it promises to be, and representative. As has been announced, the names of this committee are: Dr. Henry Flood, of Elmira, chairman; Dr. A. Edward Davis, of New York; and Dr. L. H. Neuman, of Albany, secretary.

New York County Medical Association.—The next meeting of this association, and the first under the presidency of Dr. Frances J. Quinlan, will be held at the Academy of Medicine on the evening of Monday, November 21st, at 8.15 o'clock. A very attractive programme has been arranged. In addition to reports of cases and exhibition of specimens and new instruments, papers will be read by Dr. Milton Franklin, on The Use and Abuse of the Röntgen Rays, and by Dr. Louis L. Seaman, Major United States Volunteers, on Some Medical and Surgical Features of the Russo-Japanese War. Both papers will be discussed by men eminent in the profession. The county medical association was never in more prosperous condition than at present, and under Dr. Quinlan's guidance this promises to be the most successful season, from scientific, financial, and social viewpoints, in many years. The membership now numbers nearly 750 and is increasing rapidly. It is confidently expected that the 1,000 mark will be reached within a year. Meetings of the association are held on the third Monday of each month, except during July, August, and September.

PHILADELPHIA.

The Health of the City.—The following contagious diseases have been reported for the week ending October 29th:

	Cases.	Deaths.
Typhoid fever	68	7
Scarlet fever	77	3
Smallpox	1	0
Chickenpox	36	0
Diphtheria	98	18
Measles	13	0
Whooping cough	2	0
Tuberculosis of the lungs	53	45
Pneumonia	28	38
Erysipelas	9	0
Trachoma	1	0
Tetanus	1	0

The total death rate for the week was 407 in an estimated population of 1,408,154, corresponding to an annual death rate of 15.03 per 1,000 population. There have been the following deaths from other infectious diseases: Tuberculosis, other than tuberculosis of the lungs, 4; diarrhœa and enteritis under two years, 17. Infant mortality: Under one year, 69; from one to two years, 24; total, 93. Still births, 32; males, 12; females, 20. No unusual meteorological conditions were reported by the weather bureau.

Activity of Pure Food Commission. A Correction.—We regret that in our list of witnesses engaged on this commission, we omitted, last week, the name of Dr. Carl Frese, one of the experts employed by the State of Pennsylvania for the prosecution.

Assistant Medical Inspectors Visit New York.—Dr. Thomas J. Beatty, Dr. Francis L. Hughes, Dr. Frederick W. Smith, Dr. Charles A. Groff, and Dr. L. C. Wessels, assistant medical inspectors, visited the Department of Health of New York city and the New York public schools on November 3rd to inspect the methods of the department in that city.

Criminal Malpractice Cases.—Mrs. Elizabeth Ashmead was found guilty on October 31st of having performed a criminal operation on Mary B. Sloan. The maximum penalty is seven years' imprisonment. Counsel for the prisoner moved arrest of judgment and for a new trial. The case against Dr. Matthew McVickar was abandoned by the commonwealth, because the evidence was not enough to convict. The conviction of Mrs. Ashmead is the third in a list of cases of criminal malpractice; Dr. Appel and Dr. Mosier are in prison, and Dr. W. A. Palmer and P. H. Pierson, alias Dr. Clark, are awaiting trial.

The Will of Dr. Woodhouse.—By the will of Dr. S. W. Woodhouse, his widow receives the estate, valued at $20,000, for life, with reversion of the principal to the children. In the event that no children survive the widow, the estate, upon the decease of the latter, goes to the Academy of Natural Sciences to be expended in the purchase and mounting of specimens of such birds and quadrupeds as are not already contained in the collection of that institution. It is also directed that $500.00 shall be paid annually to the curator of the ornithological and zoological collections of the academy. A portrait of Dr. James Woodhouse, former professor of chemistry in the University of Pennsylvania, is bequeathed to that institution after the death of the testator's son.

Medical Society Programmes.—The following was the programme of the meeting of the Northern Medical Association, held Friday, November 11th: Dr. C. S. Hirsch, Iodine, Its Employment in Genitourinary Diseases; Dr. Albert Bernheim, Food and Poison.

The following was the programme of the Philadelphia County Medical Society meeting of November 9th: Dr. George Erety Shoemaker, Fibroma of the Uterus Complicated by Lesions of the Heart and Kidneys; Dr. J. M. Anders, The Schott Treatment of Diseases of the Heart and Blood Vessels; Dr. Thomas S. Githeus, The Influence of Hunger and Hæmorrhage on the Composition of the Bloodplasma; Dr. H. C. Wood, Jr., The Use of Methylene Blue in the Treatment of Malarial Fevers.

New Medical Society.—The Society of Normal and Pathological Physiology was organized at the University of Pennsylvania on Monday, October 24th. The object of the society, which is limited in membership to those doing research work in normal physiology and pathological physiology in any of its aspects, is to discuss and to further the study of physiology in all its bearings. The society meets on the first and third Mondays in each month in the medical laboratory building. Dr. Edward Lodholz, demonstrator of physiology, is the secretary and the only officer. At the meeting held November 7th, Dr. Leo Loeb spoke on the theory of coagulation of the blood. Dr. David L. Edsall described the influence of mercury on autolysis. Dr. A. J. Carlson spoke on the evidence of the nervous origin of the heart beat.

The Weather During October.—A summary of the observations of the United States weather bureau for the month of October shows that the mean temperature for the month was 1.9° below the 34-year normal and 3.4° below that of October, 1903. Frequent and marked changes in the temperature were noted during the month; for example, the thermometer registered 83° on the 10th, 84° on the 11th, and dropped to 61° on the 12th and 52° on the 13th. On the 18th the maximum temperature was 80°, with a minimum of 50° on the same day. At the same time there were several low temperatures recorded, as 39° on the 7th, 35° on the 28th, and 38° on the 29th. The total precipitation for the month was 4.03 inches. A thunderstorm occurred on the 21st. Possible hours of sunshine, 344.9; actual hours, 251.1; percentage, 73.

The College of Physicians.—At the meeting of the College of Physicians, held Wednesday evening, November 2nd, Dr. W. W. Keen, in collaboration with Dr. George E. Pfahler and Dr. A. G. Ellis, read a paper on Hypernephroma. The librarian announced the addition of eighty-seven volumes to the library during October. The chairman of the committee on the Mütter Museum announced the addition to the museum of a collection of books and surgical instruments, the property of the late William Ashmead, M. D. Dr. Robert G. Le Conte read the report of a committee appointed in June to present plans for a new college building on the site now occupied by the organization. As the result of this report the college voted not to proceed with building plans at Twenty-second and Ludlow Streets, and it ordered the plot of ground at Twenty-second and Ludlow Streets to be sold. The college did not decide to rebuild at its present location, Thirteenth and Locust Streets, other available sites having been discussed.

GENERAL

Dr. Samuel W. Hauck has been appointed assistant physician at the St. Louis poorhouse.

No Scarlatina at the Morgan School, Washington.—The rumor that there had been an outbreak of scarlatina at this school is denied by the board of health.

Tabula Rasa at the College of Physicians and Surgeons, Cleveland.—The students of the College of Physicians and Surgeons of Cleveland have decided that no student shall wear whiskers, and the enforcement of the edict has caused considerable excitement, particularly among the postgraduate pupils.

Sanitary Washtubs for Buffalo. — On the ground that the ordinary wooden portable or stationary washtub absorbs the germs from soiled clothing, Dr. Greene, the Buffalo commissioner of health, is going to ask the common council to adopt an ordinance making it compulsory for householders to have non-absorbent washtubs.

St. Luke's Hospital, Utica.—The Clinical Medical Society of St. Luke's Hospital, Utica, N. Y., held its annual meeting on November 3rd. Officers elected were as follows: President, Dr. George Seymour; vice-president, Dr. William M. Gibson; secretary and treasurer, Dr. William J. Schuyler.

Bequests of a Chicago Resident.—Four charitable institutions are remembered in the will of Andrew E. Leicht, of Chicago. The instrument has been filed in the Probate Court, and the following bequests are included in the provisions: German Old People's Home at Altenheim, $1,000; Uhlich's Orphan Asylum, $1,000; German Hospital, $1,000; German Society, $1,000.

Bequests to Baltimore Institutions.—The will of Max Ambach, admitted to probate in the Orphans' Court on November 2nd, gives $500 to the Hebrew Hospital and Asylum Association, $250 each to the Hebrew Benevolent Society and the Hebrew Orphan Asylum, the money to be invested in each case as part of the association's sinking or memorial fund.

Civil Service Examinations for the State and County Service.—The State Civil Service Commission announces general examinations to be held December 3, 1904, including the following positions: Apothecary; assistant secretary, office of Commissioner of Elections, Erie county; examiner, Department of Education in four groups, viz., civics and economics, history, science, and ancient languages; office helper, State pathological institute; male officer, State institutions; physician, fourth grade, State hospitals and institutions; preparator, division of palæontology, State museum; resident physician, State industrial school, Rochester; teacher, State institutions. Applications for these examinations must be made on or before November 28th. Full particulars of the examination and blank applications may be obtained by addressing the Chief Examiner of the Commission, at Albany.

Lowest Death Rate in Milwaukee.—Statistics issued by the Milwaukee health department show that that city leads all cities in the United States in the matter of mortality percentage. The Milwaukee rate for 1903 was 12.99. Detroit is second with 13.45.

Accident to an Atlanta Physician.—Dr. Monroe Smith, the well known physician, was thrown out of his buggy on Windsor Street on November 2nd and was painfully injured, suffering several scalp wounds. Dr. Smith's horse became frightened near the Southern shops and plunged suddenly, throwing the physician out. Dr. W. L. Goldsmith and Dr. L. P. Moon dressed his wounds.

Scottish Hospital, Chicago.—The benefit concert given lately by the Grenadier Guards Band of the British army at the Auditorium will net the Scottish Hospital fund about $727. Maxwell Edgar, who managed the tour of the British musicians, has deposited $500 in the Bank of Nova Scotia to the credit of the hospital. When the accounts are settled there will be about $227 more to be added to this sum.

New Frankfort, Ky., Hospital.—The corner stone of the $10,000 hospital to be erected by the local circle of King's Daughters was laid at Frankfort on October 29th with appropriate ceremonies. The speakers of the occasion were the Reverend Carter Helm Jones, of Louisville; Judge T. L. Edelen, and Rear Admiral C. C. Todd. The site of the building is on East Main Street, near the Institute for Feeble Minded Children.

East End Hospital, Pittsburgh, Pa.—A charity bazaar for the benefit of East End Hospital will be held at Duquesne Garden, November 14th to 19th. Much interest is shown throughout the city by different organizations controlled by the Sisters of Charity to have the bazaar a success. Among prizes to be drawn are a piano and a lot. The fancy work booth will contain articles in embroidery and water colors made by the sisters and suitable for Christmas gifts.

Presbyterian Hospital, Cincinnati.—Dr. Derrick T. Vail and Dr. Louis Stricker have been elected to the chair of ophthalmology at the Presbyterian Hospital, succeeding Dr. C. R. Holmes, who resigned and became affiliated with the Ohio Medical College. Dr. Vail is secretary of the American Academy of Ophthalmology and Otolaryngology, and oculist at the city hospital and Deaconess Hospital. Dr. Stricker is the author of *The Crystalline Lens.*

New City Hospital, Kansas City, Mo.—The board of public work has set November 16th as the date for receiving bids for the excavating, grading, and laying of the foundations for the new city hospital to be erected on the site donated to the city by Colonel Thomas Swope. The architects again appeared before the board on November 2nd to emphasize the necessity of a survey being made of the ground to determine if adjoining owners are not encroaching on the hospital site.

Donation to Brockton Hospital Fund.—The sum of $500 was given by Mrs. Georgietta A. Reed on November 1st for the benefit of the Brockton Hospital, to be applied toward the raising of the $15,000 needed for improvements. The executive board was recently authorized to mortgage the property to raise this money. A business man offered to give $1,000 if donations for the remaining amount could be secured, and not mortgage.

Compliment to Surgeon of the Sixty-fifth Regiment, N. G., S. N. Y.—As a token of their appreciation and esteem the members of the hospital corps of the Sixty-fifth Regiment tendered Major Albert H. Briggs a dinner on October 27th, and presented him with a handsome regulation sword. The occasion was the completion of twenty-five years of continuous service in the regiment, by the major, who is now regimental surgeon and in command of the hospital corps. The affair was a complete surprise to Major Briggs.

Northern New York Medical Society.—The annual meeting of the Northern New York Medical Society was held in Ogdensburg on October 19th. The society convened at the State hospital. Dr. Hutchings was elected president for the ensuing year; Dr. McClellan, of Saranac Lake, vice-president; Dr. Welding, of Malone, secretary; Dr. Oliver, of Malone, treasurer; Dr. S. E. Brown, of Ogdensburg; Dr. Robinson, of Saranac Lake, and Dr. Moody, of the same place, intelligence committee. The society will hold its next meeting in Malone.

A Case of Smallpox in Boston.—Boston's first case of smallpox in several months came on November 2nd, when a person so affected was landed at Gallop's Island from one of the incoming ocean liners. She is a young woman about twenty years of age, an American, returning from a trip abroad. The chances are that she contracted the disease at Newcastle-on-Tyne, where smallpox has been prevailing. Her mother, who was traveling with her, also was placed in detention on the island, as were the two other occupants of their stateroom, and all three will be held under observation for two weeks.

City Hospital, Cincinnati.—Dr. Merle Flenner, Dr. F. W. Krueger, Dr. H. E. Schilling, and Dr. Earl H. Bruns will leave the City Hospital this week, having completed their eighteen months' term as internes. Dr. Flenner will return to Hamilton, Ohio, his home, to practise. Dr. Krueger will go to Richmond, Ind., his home; Dr. Schilling will return to his home, Troy, Ohio, to enter upon his life's work. Dr. Bruns recently passed an examination at Fort Thomas for army surgeon. He is now in Washington, D. C., where he is attending the Army and Navy Medical School, preparatory to entering the army as a surgeon, with the rank of first lieutenant.

The Vaccine Question in Chicago.—The increased demand for vaccine has caused some producers to put " unripe " lymph on the market. During the week samples brought to the department laboratory for examination were found, from two producers, to contain bacteria which had not been destroyed by the action of the glycerin. Such lymph causes pus sores and impairs the protection of the vaccination. The commissioner has, therefore, tendered to all producers of vaccine the services and facilities of the laboratory of the health department, and of its expert clinicians, in the bacterial and clinical examinations of their respective vaccine products offered for sale and use in the city of Chicago. All vaccine submitted for such examinations, and found to be pure, that is, free from disease producing organisms, and potent, that is, producing not less than 90 per cent. of successful primary vaccinations, will be so certified by the department. Defects in either respect will be duly notified. In his letter the commissioner explains that: "My purpose in making this tender is twofold: First, to assure for the community a pure vaccine free from danger of any mischievous or undesirable result and, at the same time, efficient, so that its operation will secure certain protection against smallpox. Second, to remove a widespread distrust by the profession, evidenced by the increasing requests of physicians for vaccine tested, or vouched for, by the department. No charge will be made for these examinations. Details may be learned by communicating with Dr. Heman Spalding, Chief Medical Inspector, or Dr. J. F. Biehn, Director of the Laboratory, Health Department."

Annual Health Report of Montreal, Can.—The annual report of the Montreal Health Department for last year has been completed and contains many interesting details. It is shown that a better system of tabulating deaths and births in the city has been inaugurated; while the rate of mortality in this city, compared with other cities, is discussed and analyzed. Taking the figure of the population of Montreal as given in the fourth census returns of Canada, completed at the end of April, 1901, by the Federal Government, namely, 267,730 inhabitants, and calculating the probable increase of our population up to the middle of the year 1903, the total mortality for this period is 24.39 per 1,000. The mean annual death rate for the past eighteen years, leaving out that for 1885, the year in which the great smallpox epidemic prevailed, was 24.77 per 1,000 of the population; while the rate for 1901 was 23.25, and that for 1902, 22.58 per 1,000. The rate for 1903, was therefore 4.56 less than the mean rate for the preceding eighteen years; 3.04 per 1,000 and 2.37 per 1,000 less than in 1901 and 1902, respectively. Tuberculosis caused less deaths than in preceding years. Before 1900, the number of deaths was 692; in 1901, 647; in 1902, 644; while in 1903 the number was only 633. In 1903, there were 2 deaths caused by smallpox, or 8 less than in 1902; 77 by measles, or 7 less than in the preceding year; 24 by scarlatina, or 40 less than in 1902, and 21 less than in 1901 and 108 less than in 1900. The deaths by diphtheria and by diarrhœa cannot be compared as they have been classified according to the new international system. Under the title Diphtheria are included the deaths from croup, and under the title Diarrhœa the deaths from enteritis. Typhoid fever caused 90 deaths, or 4 more than in 1902; but 40 less than in 1901, and 30 less than in 1900. Bronchitis caused 224 deaths, or 6 more than in 1902. Pneumonia (including bronchopneumonia) caused 528 deaths, or 16 less than in 1902.

Statement of Mortality in Chicago for the week ending November 5, 1904, compared with the preceding week and the corresponding week of 1903. Death rates computed on United States Census Bureau's estimated midyear populations of 1,932,315 for 1904 and of 1,873,880 for 1903:

	Nov. 5, 1904.	Oct. 29, 1904.	Nov. 7, 1903.
Total deaths, all causes	420	412	476
Annual death rate per 1,000	11.36	11.14	13.24
By sexes—			
Males	234	228	263
Females	186	184	213
By ages—			
Under 1 year	78	74	73
Between 1 and 5 years	33	28	42
Over 60 years	91	77	95
Important causes of death—			
Acute intestinal diseases	21	34	31
Apoplexy	15	17	7
Bright's disease	42	32	41
Bronchitis	12	12	18
Consumption	50	54	37
Cancer	18	16	14
Convulsions	9	9	9
Diphtheria	12	10	17
Heart diseases	33	30	40
Measles	2	1	0
Nervous diseases	17	14	29
Pneumonia	49	32	67
Scarlet fever	1	0	3
Suicide	9	6	14
Smallpox	2	0	0
Typhoid fever	6	7	10
Violence (other than suicide)	24	33	23
Whooping cough	3	2	2
All other causes	85	101	114

Statement of Mortality in Chicago for the ten months ending October 31, 1904, compared with the corresponding period of 1903. Death rates computed on United States Census Bureau's estimated midyear populations of 1,932,315 for 1904, and of 1,873,880 for 1903:

	10 mos., 1904.	10 mos., 1903.	1904.	
			Inc.	Dec.
Total deaths, all causes	22,058	23,875	....	1,817
Annual death rate per 1,000	13.69	15.29	....	10.46%
By sexes—				
Males	12,667	13,743	....	1,076
Females	9,391	10.132	....	741
By ages—				
Under 1 year	4,314	4,166	148	....
Between 1 and 5 years	1,670	2,568	....	898
Over 60 years	4,545	4,331	214	....
Important causes of death—				
Acute intestinal diseases	2,052	2,041	11	....
Apoplexy	610	513	97	....
Bright's disease	1,515	1,400	15	....
Bronchitis	674	839	....	165
Consumption	2,622	2,481	141	....
Cancer	909	900	9	....
Convulsions	471	505	....	34
Diphtheria	291	476	....	185
Heart diseases	1,683	1,718	....	35
Influenza	89	149	....	60
Measles	24	266	....	242
Nervous diseases	898	1,246	....	348
Pneumonia	3,430	3,800	....	370
Scarlet fever	124	264	....	140
Smallpox	13	47	....	34
Suicide	354	411	....	57
Sunstroke	26	42	....	16
Typhoid fever	305	496	....	191
Violence (other than suicide)	1,320	1,236	84	....
Whooping cough	79	259	....	180
All other causes	4,632	4,786	....	154

At the close of October there had been 22,058 deaths from all causes recorded since the first of the year. This total is 1,817 fewer than for the corresponding period of 1903. Since the mortality was excessive during the first few months and since November is the month of lowest mortality among the twelve, it is probable that 1904 will have one of lowest, if not the lowest, death rate. The year 1901, with a rate of 13.88 per 1,000 of population, now holds the record. The department's statisticians are figuring on a rate of less than 13.70 for 1904. The appended table shows 11 more deaths from the acute intestinal diseases, 97 more from apoplexy, 15 more from Bright's disease, 141 more from consumption, 9 more from cancer, and 84 more from violence other than suicide, as compared with the period of 1903. The important causes of death showing decreases are bronchitis 165, convulsions 34, diphtheria 185, heart disease 35, influenza 60, measles 242, nervous diseases 348, pneumonia 370, scarlet fever 140, smallpox 34, suicide 39, sunstroke 16, typhoid fever 191, and whooping cough 180.

A Memorial Building for Dr. Osler.—Plans are afoot in medical circles of Baltimore and other cities to erect in that city a library building, to be called the Osler Memorial Building, as a tribute on the part of the medical profession to Dr. William Osler. The idea to honor Dr. Osler in this way was conceived a very short time after it was known positively that he had accepted the regius professorship of medicine at Oxford, and since then it has been quietly, though energetically, brought to the attention of the most prominent physicians in the county. At present the plans are not in definite shape, and they will not be announced publicly until they are. Some of those actively interested in the matter say that while the plans are unsettled as yet, there is no doubt that a memorial building will be erected there. One of the earliest plans was to buy Dr. Osler's present home, at 1 West Franklin Street, and to convert that into a medical library building, erecting, in addition to the present structure, an annex in the rear. Another plan was to erect a new building as an addition to the Johns Hopkins Medical School group, and to call it the Osler Memorial. But that was soon voted to be too local for an enterprise of national scope. Other plans were considered, some being definitely dropped and others being held over for further consideration. One of the latter affects the library of the Medical and Chirurgical Faculty. This society's collection of medical books contains many rare and valuable volumes, of which in some cases only one or two copies are extant. For some time the present quarters of the society have been found to be inadequate for the needs of the society and the library, and efforts have been made to secure appropriations from the legislature for a new library building. It was suggested that it would be a good idea to erect a library building, to be called the Osler Memorial Building, and also to house the valuable library of the Medical and Chirurgical Faculty. This plan is especially considered as an apt one, because of the fact that for years Dr. Osler has been closely identified with the medical society, and on one occasion he appeared before the legislature and asked for an appropriation for it.

The committees are still considering plans, and they are receiving new suggestions every day. Letters have been addressed to prominent physicians in various parts of the country asking them to give their idea of the character the proposed building should assume, and the methods that in their opinion should be adopted to bring about its erection. These letters have met, it is said, with speedy and enthusiastic responses.

Health in Michigan During October, 1904.—Reports to the State Board of Health, by representative physicians in active general practice, in different parts of the State, show the diseases which caused the most sickness in Michigan, during the month of October (four weeks ending October 29th), 1904, as follows:

Number of reports received for this month.............. 309

Diseases arranged in order of greatest prevalence in this month.	Per cent. of reports stating presence of disease.		
	October, 1904.	September, 1904.	Average for October. 10 years. 1894-1903.
Rheumatism	58	60	62
Neuralgia	51	49	56
Diarrhœa	48	61	50
Bronchitis	43	35	48
Amygdalitis	37	31	42
Gonorrhœa	32	39	*
Influenza	27	22	30
Syphilis	26	28	*
Typhoid fever, enteric	21	19	24
Typhoid fever, typhomalarial	4	4	5
Cancer	20	19	*
Consumption, pulmonary	20	23	24
Inflammation of kidney	18	17	17
Dysentery	13	22	18
Intermittent fever	12	11	21
Inflammation of bowels	12	11	11
Smallpox	11	9	1
Cholera morbus	11	25	15
Pleurisy	10	8	12
Scarlet fever	10	8	10
Cholera infantum	8	21	11
Remittent fever	7	5	17
Erysipelas	4	8	9
Pneumonia	4	3	10
Diphtheria	4	6	8
Measles	3	0.6	2
Whooping cough	3	3	5
Inflammation of brain	2	0.6	2
Puerperal fever	2	2	1
Meningitis	1	0.9	1
Menbranous croup	0.3	0	1

At the State capitol for the month of October, 1904, compared with the average for October in the ten years, 1894-1903, tri-daily observations show that the prevailing direction of the wind was southwest, instead of southeast and west, the velocity 1.3 mile per hour less, the average temperature 2.43 degrees lower, the average daily range of temperature 1.41 degree less, the average daily range of atmospheric pressure .045 of an inch greater, the rainfall .27 of an inch less, the absolute humidity less, the relative humidity more, the day and night ozone less, and the depth of water in the observation well 2 inches more. For the month of October, 1904, compared with the average for October in the ten years, 1894-1903, smallpox, measles, and puerperal fever were more than usually prevalent; and dysentery, intermittent fever, cholera morbus, cholera infantum, remittent fever, erysipelas, pneumonia, diphtheria, and whooping cough were less than usually prevalent. The most dangerous communicable diseases, including reports by regular observers and others: Meningitis was reported present in Michigan during the month of October, 1904, at 5 places; whooping cough at 12 places; measles at 19 places; pneumonia at 29 places; diphtheria at 63 places; smallpox at 79 places; scarlet fever at 82 places; typhoid fever at 182 places; and consumption at 303 places. Reports from all sources show meningitis reported present at 3 places less; whooping cough at 5 places less; measles at 9 places less; pneumonia at 4 places less; diphtheria at 5 places less; smallpox at 10 places more; scarlet fever at 9 places more; typhoid fever at 4 places less, and consumption at 1 place less, in the month of October, 1904, than in the preceding month. Henry B. Baker, M. D., secretary.

Lansing, Mich., November 3, 1904.

Pith of Current Literature.

PRESSE MEDICALE.

October 8, 1904.

1. Cardiorenal Subjects,	By BERNARD.
2. The So Called Urohæmatin Reaction,	By LEMAIRE.
3. Chats on Electricity; Electric Power,	By ZIMMERN.

1. **Cardiorenal Subjects.** — Bernard thinks cardiorenal disease is not a specific entity, although the heart is so often affected in the different forms of nephritis, and is too often offered as a diagnosis when the original cause of disease is obscure. From a therapeutical viewpoint, where the kidney is permeable in cardiac dilatation, digitalis gives excellent results; where there is impermeability of the kidney, on the other hand, milk diet and the exhibition of theobromine are called for. The first condition is originally cardiac, the second renal.

October 15, 1904.

1. Hæmaturia in Nephritis,	By ALBARRAN.
2. Surgical Anæsthesia by Hypoarachnoid Injection of Stovaine,	By KENDIRDJY and BERTHAUX.

1. **Hæmaturia in Nephritis.**—Albarran recalls that hæmaturia was formerly considered to be diagnostic of one of three conditions, calculus, tuberculosis, or cancer. Lancereaux mentioned a hæmaturia *sine materia,* of angeioneurotic nature. Now it is known that hæmaturia may exist in simple nephritis, not only in the acute form, but also in the chronic, although this has been doubted. Albarran has noted it after the administration of cantharides in large doses. The phenomenon exists in three classes of nephritic patients; 1, in those with great œdema, an enlarged heart, and a loud murmur; hæmaturia is very persistent in this class; 2, in those in whom it heralds the onset, often months or years distant, of a chronic nephritis; 3, in those in whom there is no other sign of Bright's disease. In these subjects, hæmaturia often persists for years without any apparent effect on the health. Post mortem the kidney is often found to be affected only microscopically, and in certain cases, practised histologists have failed to find even microscopical lesions. Albarran believes that in all cases of nephritis, there are important secondary changes in other organs, and even goes so far as to say that nephritis may be simply a symptom of some constitutional disease. Nephrotomy or decapsulation often arrests hæmaturia, which is important, as it is a dangerous symptom.

LYON MEDICAL.

October 2, 1904.

1. Three Cases of Sigmoiditis,	By PATEL.
2. Recovery After Six Laparotomies in Eight Months,	By TAVERNIER.

1. **Sigmoiditis.**—Patel's first case was one of simple sigmoiditis which recovered in eight days; the second one of infected sigmoiditis with an abscess in the lumbar region; the third, also infected with an abscess near the umbilicus. The two last recovered after operation. Purgatives were all that were required in the first case. Case III resembled an attack of appendicular inflammation transported to the left side, and the clinical aspect of the two affections is very similar.

2. **Six Laparotomies in Eight Months, With Recovery.**—Tavernier's patient was a woman, twenty-one years of age, married at seventeen years, had cystitis soon after and a painful pregnancy with albuminuria. The first operation was a removal of the appendix; the second, removal of the annexa on both sides, leaving a small portion of a tumor attached to the sigmoid intestine, and the opening of an artificial anus; the third, closure of the artificial anus, and the fourth, a reconstruction of it. The fifth operation was a dilatation of the fistula; the sixth, a resection of the intestine with a button anastomosis; this last operation was followed by recovery from all symptoms and the patient increased rapidly in weight. Tavernier draws attention to the danger of "deperitonizing" the intestine during operation.

SEMAINE MEDICALE.

October 5, 1904.

Action of Certain Lymphagogues in Œdema and Retention,	By AMBARD.

Lymphagogues in Œdema.—Ambard, believing that the retention of chlorides is the true cause of œdema, states that the hypotheses on the subject are, 1, that the kidney is impermeable to chloride, when inflamed, and, 2, that there are formed in nephritis, certain abnormal substances which attract chlorides into the tissues; the latter is the German lymphagogue theory, the attracting substances being the lymphagogues. Ambard, in a very scientific paper, argues that digitalis and theobromine do not act in the simple way we have always attributed to them, but that they are really lymphagogues, having the power to draw the chlorides into the blood and thus to secure their elimination.

BERLINER KLINISCHE WOCHENSCHRIFT.

October 3, 1904.

1. Sclerosis and Dilatation of the Coronary Artery of the Right Side of the Heart Caused by Digitalis,	By T. VON OPENCHOWSKI.
2. Heredity and Treatment of Convergent Strabismus,	By H. COHN.
3. Necrosis of the Labyrinth with Extrusion of the Entire Cochlea, Cured by Operation,	By L. KATZ.
4. Surgical Significance of the Sesamoid Bone in the Gastrocnemius Muscle,	By H. WOLFF.

3. **Necrosis of the Labyrinth.**—Katz narrates the case of a man twenty-four years of age who had suffered for many years from middle ear disease and who had been operated on for caries and choleosteomatous masses. The entire cochlea appeared subsequently as a sequestrum. The patient was entirely deaf on that side, even subjective sounds being absent. He also presented symptoms of loss of balance. Recovery followed complete chiseling open of the mastoid bone.

4. **Sesamoid Bone in the Gastrocnemius.**—Wolff reports the case of a patient who suffered for many years from an affection of the knee. An

examination with the Röntgen rays showed the presence of a body the size of a cherry pit in the joint. The body was not found when the joint was opened, but the symptoms disappeared. Many radiograms showed it subsequently to be a sesamoid bone in the body of the gastrocnemius muscle.

RIFORMA MEDICA.

September 27, 1904.

1. Tachiol in Gastric Asepsis, By Luigi Ferrannini.
2. Curettage of the Bladder, By Silvio Rolando.
3. Acute Poisoning with Corrosive Sublimate (*Concluded*), By Alfredo Rossi.
4. The Collapse of the Veins in Its Relation to the Pressure in the Right Auricle (*To be continued*), By Alfonso Abbruzzetti.

2. **Curettage of the Bladder.**—Rolando found experimentally that curettage of the bladder was a beneficial procedure in cases of chronic cystitis and that the operation was not followed by the formation of new connective tissue, but by a regeneration of the curetted epithelium. It is not possible, nor is it necessary, to remove all the epithelial structures, any more than it is needful to remove all the uterine glandular tissue in curetting the uterus for endometritis. The epithelial diverticula are so deep in the bladder that the curette does not reach their deepest portions. Vesical curettage was introduced by Guyon in tuberculous affections of the bladder and was afterwards applied to chronic cystitis in general. The technics employed in a case of chronic cystitis in a woman, in which no improvement could be secured through the ordinary methods, was as follows: The bladder was repeatedly washed with warm boric acid solution; the urethra was dilated with Hegar's dilators, and a Volkmann spoon was introduced into the bladder. The left hand supported and guided this spoon through the vagina, and the surface of the bladder was vigorously curetted with this instrument. The trigone and neck of the bladder were first scraped; then the anterior wall, etc. From time to time the curette was withdrawn, and the bladder washed out, so that the curetted pieces were removed. The operation was conducted under chloroform narcosis. A permanent catheter was then introduced and was removed when the patient was able to urinate spontaneously on the twenty-sixth day.

October 12, 1904.

1. Tubercuolsis of the Cæcum and of the Appendix Vermiformis (*To be continued*), By Natale Palermo.
2. Changes in the Intercostal Muscles in Diseases of the Pleura (*To be continued*), By B. Pernice.
3. On Cadaveric Changes in the Elements of the Thymus Gland. By Salvatore Distefano.

3. **Cadaveric Changes in the Thymus.**—Distefano describes in this preliminary note the cadaveric changes which take place in the thymus of fœtuses which undergo maceration in the uterus. There are in medicolegal literature a number of important observations on the changes found in fœtuses during maceration. Perrando and Cassiccia have held, in fact, that the length of time during which a fœtus has been dead may be judged from certain features of the macerated cadaver. The changes in macerated fœtuses are subject to certain definite and fixed laws. The changes which the author observed in the thymus glands of the fœtuses examined included a greater facility for staining on the part of the nuclei, especially in the lymphoid portions of the gland, and in the corpuscles of Hassal. The thymus gland seems to offer considerable resistance to the macerating process, because the nuclei in this structure show a less marked tendency to disintegration and caryolysis. The resistance of the nuclei of the thymus gland is inversely proportional to the age of the fœtus.

October 19, 1904.

1. The Effects of Subcutaneous Injections of Sodium Chloride Solutions in Nephritis in Relation to the Modern Theories of the Action of Chlorides in Renal Diseases, By Luigi Ferrannini.
2. The Precipitins in Normal Blood, By Guido Quirino Ruata.
3. Tuberculosis of the Cæcum and of the Vermiform Appendix (*Concluded*), By Natale Palermo.
4. Changes in the Intercostal Muscles in Diseases of the Pleura (*Concluded*), By B. Pernice.

1. **Effects of Hypodermoclysis With Sodium Chloride Solutions in Nephritis.**—Ferrannini points out that, although the modern theories of the renal function regard the introduction of an excess of chlorides into the organism as apt to aggravate an existing nephritis, the use of hypodermoclysis with solutions of sodium chloride is still a favorite method of treating certain forms of nephritis in which the eliminative functions of the kidneys are greatly impaired. An extensive experimental research brought him to the conclusion that all the harm that can come from the limited use of sodium chloride in the form of hypodermoclysis in nephritis is that the albuminuria may be slightly increased for a short time, and that the renal elements in the urine may be present in larger numbers for a while. This increase, however, is followed almost immediately by a considerable diminution in the amount of albumin and in the number of renal elements eliminated, together with a general improvement in the condition of the patient. During an access of uræmia hypodermoclyses of salt solution are also beneficial as they increase the renal function, but they should not be used as a systematic treatment of Bright's disease because in the long run, if used often, without proper caution, they may interfere with the action of the kidneys. This method of treatment is therefore only to be used temporarily, and in emergencies.

3. **Tuberculosis of the Cæcum and Vermiform Appendix.**—Palermo concludes from a study of a number of cases of this affection that tuberculosis of the cæcum is very often diagnosticated erroneously as cancer of that part of the intestine. Many cases of chronic appendicitis, he thinks, are in reality tuberculous. It is advisable to subject all appendices that are removed during operations to histological examination. Tuberculosis of the cæcum is, in most instances, secondary to that of the appendix, and is not primary as has been stated by most authors. It is advisable to operate even in the subacute form of appendicitis when it is believed that the affection is tuberculous.

The operation is certainly indicated in all cases in which the personal or family history points to tuberculosis.

4. **Changes in Intercostals in Pleurisies.**—Pernice shows by several observations that serious changes may occur in the intercostal muscles in cases of pleuritic inflammations of various kinds. In a variety of pleural affections the changes in the serous membrane are propagated into the intercostal muscles, especially into the internal layers of these, and in diaphragmatic pleurisy the diaphragm also takes part in the lesions. The changes in the muscles vary in proportion to the extent of the pleuritic process. They are especially marked in cases of sarcoma of the pleura. The author lays particular emphasis on the fact that the disturbances of respiration, the shortness of breath and the pain which accompany certain cases of pleurisy are often out of proportion to the amount of exudate or to the extent of the pleuritic lesions themselves, as apparent from clinical examination, simply because these signs are the result of disease of the intercostal muscles.

ROUSSKY VRATCH.

October 2, 1904.

1. On Chronic Suppurative Inflammation of the Fallopian Tubes in Its Clinical and Anatomopathological Relations (*To be continued*), By V. N. ORLOFF.
2. The Treatment of Acute Otitis Media Purulenta, By A. E. SPENGLER.
3. The Entrance Into the Stomach of a Mixture of the Intestinal and Pancreatic Juices with the Bile. Conditions for, and Probable Significance of This Phenomenon (*Concluded*), By V. N. BOLDYRIEFF.
4. Two Cases of Sepsis Treated with Serum, By A. D. PERVOFF.

2. **Treatment of Acute Middle Ear Inflammation.**—Spengler believes that the best division of the acute inflammations of the middle ear, is into the superficial and the deep affections. Paracentesis of the tympanic membrane is indicated always in the deep inflammations, and only in special cases in the superficial varieties. In the majority of cases it is better not to pierce the membrane during the first few days of the disease. The dry method of treating acute purulent otitis media is by far the most satisfactory, and fulfils all the surgical indications in these cases. It prevents the occurrence of perforations, and shortens the duration of the disease. It is so simple that even patients who are not very intelligent can follow it without any trouble. The dry method to which the author refers consists in systematic drainage of the ear by means of strips of gauze, or of small rolls of cotton loosely introduced into the external passage, so as to reach the ear drum. The ear is carefully dried in the morning, and the gauze or cotton is introduced by means of forceps or applicators. The patient can be instructed in the manner of doing this himself. In this way the purulent discharge rapidly diminishes and the ear is restored to its normal condition. While acute symptoms last, the patient should remain in bed and should apply ice to the mastoid region, keep his bowels open, etc.

3. **Mixture of Digestive Juices With Bile in Digestion.**—Boldyrieff found as the result of a long series of experiments on dogs, that if the diet contains a great deal of fat; if there is an excess of acids in the stomach, or if the animal is allowed to starve, a stream, consisting of a mixture of pancreatic and intestinal juices with bile, enters the stomach. This fact may probably be utilized for obtaining pancreatic and intestinal juices in man for the purposes of diagnosis. When fatty food is ingested digestion probably takes place largely through the aid of the ferments of the pancreatic juice. When examining the stomach contents or specimens of vomited matter, we should always remember that pancreatic and intestinal juices may be mixed with the sample under consideration. The absence of free hydrochloric acid and of pepsin ferment in the stomach contents may be noted even in perfectly healthy stomachs after test meals, provided the hydrochloric acid has been neutralized completely by the alkalies of the pancreatic juice, and the pepsin ferment has been hampered in its action by the presence of bile. In investigating the motility of the stomach by means of test meals, we must take into consideration the possibility of the entrance of pancreatic and intestinal juice and of bile into the stomach, thus increasing the amount of fluids found therein after a certain time. In examining the gastric motility by means of salol it will be necessary hereafter to take into account the decomposition of salol by the pancreatic juice in the stomach proper. None of the existing hypotheses as to the reason why the stomach does not digest itself holds good, because none takes account of the entrance of pancreatic and intestinal juices into the stomach. Gastric digestion is by no means so simple as has been hitherto supposed.

4. **Two Cases of Sepsis Treated With Serum.**—Pervoff reports two cases of sepsis in puerperal women in which he was able to note excellent results with the use of antistreptococcus serum. The temperature was rapidly reduced to normal and the general condition of the patients improved soon after the injection of the serum.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

November 5, 1904.

1. Primary Chorioepithelioma Malignum Outside of the Placental Site, with Report of a Case, By PALMER FINDLEY.
2. The Downes Electrothermic Clamps. Further Experience in Their Use in the Treatment of Cancer of the Uterus, By CHARLES P. NOBLE.
3. The Invasion of Carcinoma Cervicis Uteri Into the Surrounding Tissues and Its Bearing on the More Radical Operations for the Disease (*Concluded*), By JOHN A. SAMPSON.
4. The Difficulties and Dangers of Accouchement Forcé. A Simple, Safe, and Successful Method, By HORACE G. WETHERILL.
5. Aneurysm of the Innominate Artery, By ALBERT P. FRANCINE.
6. Necrosis of the Bones of the Face, By STEWART L. MCCURDY.
7. Prostatic Obstruction to Urination. When to Operate and How to Operate, By PARKER SYMS.

8. Hydrastis. Some of Its Therapeutic Uses,
By William Blair Stewart.
9. How to Produce Milk for Infant Feeding,
By Edward F. Brush.
10. The Initial Contamination of Milk,
By Richard Cole Newton.
11. The Use of Nitroglycerin in the Treatment of Erysipelas,
By J. W. Wherry.

1 and 2. See this *Journal,* Vol. LXXIX, page 1169.

3. See this *Journal,* Vol. LXXX, page 90.

4. See this *Journal,* Vol. LXXIX, page 1221.

5. See this *Journal,* Vol. LXXX, page 87.

7. **Prostatic Hypertrophy.**—Syms states the indications for operation thus: Frequent urination, pain, cystitis, hæmorrhage, catheter life, stone, residual urine (extreme), dilated or contracted bladder. The Bottini operation and extirpation of the prostate by the suprapubic route are condemned without qualification. The author recommends the following technics: Place the patient in an exaggerated lithotomy position. Make a straight median incision down to and through the membranous urethra, a lithotomy staff serving as a guide. Introduce a grooved director into the bladder and then remove the staff. Next introduce one finger into the bladder and so stretch the prostatic urethra. Introduce into the bladder, collapsed, the author's prostatic tractor and then inflate it. Make tension on the tractor so as to pull the prostate well into the perineal wound. Incise the capsule of the prostate and enucleate the gland with the index finger. The operation takes about one half hour and the patient is able to be out of bed in from one to five days. The author is of opinion that this procedure places prostatectomy almost in the domain of minor surgery. His own mortality (34 cases) is, however, six per cent.

8. **Hydrastis.**—Stewart recommends the fluid extract of hydrastis in the treatment of catarrhal conditions. The drug is of much service both locally and internally. The author's paper is not very elaborate.

9 and 10. See this *Journal,* Vol. LXXX, page 136.

BOSTON MEDICAL AND SURGICAL JOURNAL.

November 3, 1904.

1. Treatment of Lateral Curvature,
By Edward H. Bradford.
2. Fractures of the Radius in Starting Automobiles,
By F. B. Lund.
3. Three Cases of the Association Neurosis with Remarks on Its Genesis,
By John E. Donley.

1. **Lateral Curvature.**—Bradford asserts that there are two chief points that must be attended to in the treatment of non-inflammatory, lateral, spinal curves in children. (1) The spinal column must, by suitable exercise, be made more supple, and (2) the distortion must be overcome by proper counter pressure. At the beginning of treatment a suitable plaster jacket should be applied. After a variable length of time a removable jacket or a stiffened corset should replace the fixed dressing. The exercises should be given regularly and for a long time under skilled supervision. The final results of painstaking treatment are good but not rapid. The course of treatment should extend over some years.

2. **Fractures of the Radius.**—Lund calls attention to a new fracture of the radius which is acquired from the careless handling of gasolene automobiles. If the electric spark, which ignites the gasolene, flashes prematurely the starting handle of the machine is driven violently in a direction opposite to that used for starting. This forcibly bends the hand backward with such force that the lower end of the radius is torn off. The soft parts on the back of the wrist remain practically uninjured.

AMERICAN MEDICINE.

November 5, 1904.

1. The History of Pædiatrics and Its Relation to Other Sciences and Arts,
By A. Jacobi.
2. Dangers in the Use of the Glass Catheter During Parturition,
By Guy L. Hunner.
3. Taine's Ill Health,
By George M. Gould.
4. A Typical Case of "Chronic Dyspepsia" (Surgical Ulcer of the Stomach and Duodenum): Operation, Recovery,
By Charles A. L. Reed.
5. Acute Pancreatitis with Disseminated Fat Necrosis: A Report of Two Cases,
By S. W. Sappington.
6. Congenital Partial Luxation of the Knee: Genu Recurvatum,
By Sydney M. Cone.
7. Röntgen Ray in the Treatment of Sarcoma,
By Joseph F. Smith.

2. **Glass Catheters.**—Hunner reports one case, seen in consultation, in which a glass catheter was used during parturition in order to empty the bladder. A labor pain, by forcing down the child's head, broke the catheter on the symphysis. Five fragments of glass were subsequently removed through the dilated urethra. The moral is obvious.

4. **Ulcer of the Stomach and Duodenum.**—Reed reports the case of a woman who had suffered for thirteen years from chronic dyspepsia. Operation revealed a large ulcer of the pylorus. A posterior gastroenterostomy with a supplementary duodenoduodenostomy effected a cure. Such cases teach that in chronic dyspepsia ulcers should be suspected. They will be found in from 2.7 per cent. to 13 per cent. of such cases. The mortality, in the best hands, of posterior gastroenterostomy is from 3 per cent. to 7.5 per cent.

6. **Genu Recurvatum.**—Cone briefly reviews the literature of congenital partial luxation of the knee. One case is reported. The author holds that the condition consists in a displacement of the tibia due to the bending forward of the epiphysis on the diaphysis of the femur. The earlier treatment is undertaken the better will be the results.

7. **Sarcoma.**—Smith tabulates eighteen cases of inoperable sarcoma treated by the x ray. Nine of the patients died. Six were not improved and three were somewhat improved. The author asserts that in his hands the treatment of sarcoma by the x ray has proved disappointing.

MEDICAL RECORD.

November 5, 1904.

1. Cancer of the Larynx, By SIR FELIX SEMON.
2. Thyreoidectomy for Exophthalmic Goître. Based Upon Forty Operative Cases, By CHARLES H. MAYO.
3. Two Cases of Chronic Nephritis Treated Surgically, By JAMES A. NYDEGGER.
4. Paralysis of the Left Recurrent Laryngeal Nerve in a Case of Mitral Stenosis, By JOHN G. SHELDON.
5. Two Cases of Locomotor Ataxia in Man and Wife, By E. STAEHLIN.

1. **Cancer of the Larynx.**—Semon ends an elaborate paper on cancer of the larynx with the following (abbreviated) conclusions: (1) It is of the greatest importance that the diagnosis of laryngeal cancer be made at the earliest possible moment. The attention of the general practitioner should again and again be drawn to the fact that there are no more promising cases for radical operation than those in which the disease is at first manifested by nothing else than by obstinate hoarseness, occurring, without any apparent cause, in middle-aged and elderly persons. (2) Clinical diagnosis arrived at from the history and subjective symptoms of the case, from laryngoscopic examination, and from accessory circumstances of importance, has reached a certain degree of perfection; it is, however, by no means absolutely perfect, and occasional mistakes occur. (3) In these circumstances clinical diagnosis ought, whenever possible, to be confirmed before radical operation of any kind is undertaken, by the intralaryngeal removal and microscopical examination of a fragment of the new growth. This should only be done if the patient previously consents to immediate radical operation in the event of the miscroscope confirming the clinical diagnosis. The microscope is by no means infallible. Should its evidence be negative or inconclusive, the intralaryngeal removal and microscopical examination of fragments should either be repeated, or, if the clinical symptoms do not warrant postponement, exploratory thyreotomy should be undertaken. (4) The intralaryngeal method is unsuitable for the radical removal of malignant new growths. (5) Subhyoid pharyngotomy is still *sub judice* with regard to its advisability in such cases. (6) Thyreotomy, if undertaken in suitable cases, and at a sufficiently early period, is a perfectly ideal operation in intrinsic cancer of the larynx. (7) Hemilaryngectomy comes into question only when it is found after opening the larynx that mere thyreotomy will not suffice. (8) Total laryngectomy should be exclusively reserved for extrinsic, and for those cases of intrinsic, cancer, in which both sides of the organ are affected, and in which the disease has proceeded too far to be eradicated by milder measures. When performed it should be accompanied by the removal of the laryngeal lymphatics on both sides of the neck.

2. See this *Journal*, Vol. LXXX, page 571.

3. **Renal Decapsulation.**—Nydegger reports two cases of nephritis treated by renal decapsulation. Both patients were men. One died and one improved after operation. The author believes that these two cases are typical of two kinds of nephritis one of which is susceptible of cure by decortication and one of which is not. The case that recovered was diagnosticated as chronic parenchymatous nephritis; the man that died apparently had a chronic interstitial nephritis.

MEDICAL NEWS.

November 5, 1904.

1. Subdivisions of the Concrete Concept Area of the Human Cerebrum, By CHARLES K. MILLS.
2. Report of a Case of Splenomedullary Leucæmia Treated for Nine Months by the X Ray, By WILLIAM FITCH CHENEY.
3. A Complete Case of Syringomyelia, By M. G. SCHLAPP, and JAMES J. WALSH.
4. The Conveyance of Yellow Fever, By HENRY R. CARTER.
5. Endotracheal Medication, By J. J. RICHARDSON.

1. **The Concrete Concept Area.**—Mills, in a previous paper has suggested that the term "concrete concept area" should be applied to the parietotemperooccipital region which lies between the projection areas of the cortex and largely corresponds to the great posterior association area of Flechsig. This region should, in the author's view, be subdivided into the areas of stereognostic perception, word seeing, letter seeing, number seeing, object seeing, orientation, naming, object hearing, word hearing, and intonation. It is to a more minute study of some of these subdivisions of the great concrete concept region that the paper is specially devoted. Special attention is paid to the areas of object seeing and intonation and, to a lesser degree, to a discussion of the cortical represenation of color recognition.

2. **Splenomedullary Leucæmia.**—Cheney reports one case of splenomedullary leucæmia which he treated for nine months by the x ray. The paper is a model of what such papers should be. That is it gives in detail the patient's condition before and after treatment, the method by which the treatment was administered and the result it produced. The patient from the symptomatic standpoint was cured. A pathological cure was not obtained. The size of the abdomen was somewhat decreased, the hæmoglobin rose from fifty to about eighty per cent., the red count from two and one half millions to about four and one half millions and the white count fell from one hundred and thirty thousand to about eighty thousand. The author's object in writing was to present the facts as he observed them and not to try to uphold any pet theory.

4. **Yellow Fever.**—Carter, after examining in turn all the theories that have been advanced to explain the conveyance of yellow fever reaches the following general conclusion: "There is no question in any man's mind that the mosquito *Stegomyia fasciata,* acting as a host, does convey yellow fever from the sick to the well. That this is the only method of conveyance, the argument is: (1) The analogy of other diseases conveyed by living hosts; (2) that the facts observed of the natural propagation of yellow fever agree with this theory; (3) that measures based on this theory have given the very results which they should have given if the

theory was true; (4) no other natural method of conveyance is proved."

5. **Endotracheal Medication.** — Richardson has a high opinion of the value of endotracheal medication in the treatment of chronic bronchitis. In other affections of the bronchial tubes and lungs the advantages of this mode of treatment are not so striking. The author describes in detail the technics he employs and the best solutions to use. These, generally speaking, consist of some bland oil to which has been added creosote, menthol, camphor, iodoform, etc.

LANCET.

October 22, 1904.

1. William Hey: Medical Education, By E. OWEN.
2. The Treatment of Lupus Vulgaris During the Last Twenty-five Years, By M. MORRIS.
3. The Physiological Action of Ethyl Alcohol Considered as a Food: a Research, By W. H. GODDARD.
4. The Value of Hetol in Pulmonary Tuberculosis, By T. B. HEGGS.
5. On the Action Exerted Upon the Tubercle Bacillus by Human Blood Fluids, and on the Elaboration of Protective Elements in the Human Organism in Response to Inoculations of a Tubercle Vaccine, By A. E. WRIGHT, and S. R. DOUGLAS.
6. The Treatment of Pyopneumothorax, By S. WEST.
7. Drainage of the Pericardium, By H. S. PENDLEBURY.
8. On the Action of Venoms of Different Species of Poisonous Snakes on the Nervous System, By G. LAMB, and W. K. HUNTER.

2. **Lupus Vulgaris.**—Morris has treated more than 1,000 cases of lupus vulgaris by various methods. He sums up the general conclusions to which he has been led as follows: 1. It must be confessed that after every kind of treatment, whether used alone or in combination with others, recurrence is still very common. 2. As a general statement it may be laid down that small superficial quiescent patches are curable. 3. When the disease is of moderate extent and situated on the face, Finsen's method, either alone or combined with the application of the x rays and supplemented by the use of caustics, is the most efficient method in regard to cosmetic effect and probably also in regard to permanency of result. The treatment, however, requires so much time that it is practically incompatible with the pursuit of any avocation needing close personal attention and directly or indirectly it entails considerable expense. 4. If a rapid effect is desired reliance must still be placed upon the gentle cautery if the disease is on the face, and excision if it is on the limbs or the trunk, supplemented in the former case by pyrogallol, salicylic acid, nitrate of silver, or other caustics. 5. Very extensive and severe cases in which the health is affected must be dealt with by the general measures (open air treatment, feeding, exercise, etc.) used at the present day in the treatment of pulmonary tuberculosis. We cure more curable cases now than we did twenty-five years ago, and we cure them with less pain and less disfigurement. Our diagnosis is more accurate. But there are still incurable cases, and intractable cases are met with that resent any interference. It would be well if a definite time limit was set, as in the case of cancer, as regards cure.

3. **Alcohol.**—Goddard sums up the results of his researches as to the physiological action of ethyl alcohol, as follows: In small doses only alcohol is most undoubtedly a food, but as when large doses are taken about fifty per cent. of it is excreted from the system it cannot then be considered a food in the proper sense of that term, and if still larger quantities be taken it is more than probable that this contention would apply with even greater force.

5. **Vaccination Against Tuberculosis.** — Wright and Douglas consider in this communication: (1) The action exerted upon the tubercle bacillus by normal human blood fluids and the tuberculotropic substances which come here into consideration. (Tuberculotropic means the property of entering into combination with the tubercle bacillus). (2) The action exerted upon the tubercle bacillus by the blood fluids of those who are the subjects of tuberculous infection. (3) The distribution of tuberculotropic substances in the infected organism. (4) The question as to whether these protective substances are present in the blood of the infant at birth. (5) The elaboration in the human organism of tuberculotropic substances in response to inoculations of a tubercle vaccine. By measuring the agglutinating and opsonic powers of the blood they claim to be able to distinguish between the tuberculous subject and the person with normal resistance.

6. **Pyopneumothorax.**—West has for many years advocated the treatment of pyopneumothorax on general surgical principles by the evacuation of pus and free drainage. He gives the following general rules for the treatment of pneumothorax: 1. In the early stage when suffocation threatens, the air should be removed and the pressure relieved by paracentesis, repeated if necessary; if this be not sufficient it is justifiable even to lay the side fully open rather than lose the patient. 2. In the later stage when effusion forms its nature should be at once ascertained. 3. If the effusion be serous the case should be treated on the general lines of serous effusion. 4. If it be purulent evacuation at once by free incision should be carried out. A piece of rib should not be excised, for it is rarely necessary. If it is necessary no more should be removed than is required to get free drainage. 5. An aspirator should never be used in pneumothorax in any circumstances; it is unnecessary and dangerous.

7. **Pericardial Drainage.** — Pendlebury, in draining the pericardium, uses a vertical incision in preference to one along the lower border of the seventh costal cartilage, because it gives convenient access to the pericardium without interfering with the attachments of the rectus abdominis, and because it is possible to at once remove the sixth costal cartilage if this is necessary. He strongly advises the removal of the seventh costal cartilage in all cases, except in small children. The internal mammary and superior epigastric vessels are pushed towards the middle

line or divided, and the costoensiform space broken into. Carefully pushing aside the right and left pleura the operator should incise the pericardium just above the level of the base of the ensiform cartilage, and enlarge the incision with his finger. For drainage he uses an empyema tube as thick as the forefinger. In cases of simple effusion it is unnecessary to leave the tube in for more than three or four days. In ordinary cases the operation should be performed in twenty minutes. The younger the patient the less the time required.

BRITISH MEDICAL JOURNAL.

October 22, 1904.

(*Seventy-second Annual Meeting of the British Medical Association.*)

Section of Obstetrics and Gynæcology.

1. Discussion on the Treatment of Accidental Hæmorrhage,
   By SIR A. V. MACAN, A. L. GALABIN, M. KERR, and Others.
2. Discussion on the So Called Ovarian Pain: Its Causes and Treatment,
   By G. E. HERMAN, F. B. JESSETT, J. CAMPBELL, and Others.
3. On the Standpoint of Operation for Cancer of the Womb in Germany, By Professor OLSHAUSEN.
4. Further Notes on the Treatment of Birth Paralysis of the Upper Extremity by Suture of the Fifth and Sixth Cervical Nerves, By R. KENNEDY.
5. Large Fibromyoma of the Left Ovary, By J. S. DARLING.

Section on Surgery.

6. Discussion on the Indications for Hysterectomy and the Methods for Performing It,
   By J. BLAND-SUTTON, A. DORAN, C. LOCKYER, and Others.

1. **Accidental Hæmorrhage.**—Macan's conclusions are as follows: 1. That in the absence of disease all accidental hæmorrhage has a tendency to stop. 2. That all accidental hæmorrhage commences as internal hæmorrhage, and that many cases of internal hæmorrhage cease spontaneously, and are not diagnosticated at all or only by finding old clots on the surface of the placenta *post partum.* 3. That a large proportion of cases of so called accidental hæmorrhage is due to low insertion of the placenta, and that the diagnosis of this is difficult and cannot always be made with the finger. 4. That hæmorrhage from low insertion of the placenta is not likely to cause either internal or combined hæmorrhage. 5. Rupture of the circular sinus of the placenta gives symptoms very similar to those of internal or even of combined hæmorrhage. 6. Other factors besides want of tone in the uterine walls, tend to cause the hæmorrhage to remain internal:—e. g. lessening of the *vis a tergo,* the position of the first hæmorrhage and its amount, as well as firm adhesions around it. 7. In the worst cases, where the cervix is long and the os rigid, the woman should be immediately delivered. 8. Cæsarean section, either vaginal or abdominal, is better than *accouchement forcé.* 9. Less severe cases where the cervix is long and the os rigid should be treated by a properly applied vaginal plug. 10. The terms, plug and plugging, are preferable to tampon and tamponading. 11. Uterine contraction may cause the hæmorrhage to cease during the contraction, but not during the intervals, except indirectly as favoring thrombosis. 12. If uterine contraction stopped the hæmorrhage, accidental hæmorrhage during labor would not occur. 13. Accidental hæmorrhage is often due to uterine contractions. 14. When the hæmorrhage escapes from under the placenta the tendency to further separation of the placenta is lessened, because the membranes are more easily separated than the placenta. 15. This is even more the case once the hæmorrhage has become external. 16. Rupturing the membranes must always cause a diminution in the intrauterine tension. 17. It is uncertain how soon pains will supervene. 18. Rupture of the membranes makes it more difficult to increase the intrauterine tension by plugging the vagina. 19. Therefore rupture of the membranes is not good treatment for ordinary cases of accidental hæmorrhage, unless it causes rapid expulsion of the child. 20. Rupture of the membranes is a most efficient way of stopping accidental hæmorrhage, which is caused by a persistence of the bag of waters far into the second stage. 21. For a similar reason, rupture of the membranes is efficient in stopping hæmorrhage from low insertions of the placenta. 22. The great danger in delivery when the cervix is only partially dilated is due to the difficulty there is in judging how much time there is to effect the dilatation. 23. In plugging the vagina and applying a tight binder and a firm perineal bandage, we have a most efficient method of treating all but the worst cases of accidental hæmorrhage. 24. If the hæmorrhage has been recurrent, the same symptom are more urgent than where the hæmorrhage appears for the first time. 25. Adhesions may stop internal accidental hæmorrhage by causing localized increase of tension, but their presence cannot be diagnosticated. 26. If the original seat of the hæmorrhage is at the very centre of the placenta, the whole of the placenta will become detached, and if the placenta is situated exactly at the fundus, the membranes also will be all separated before the hæmorrhage becomes external. 27. Prolapse of the placenta depends on both these conditions being present. 28. All cases of accidental hæmorrhage should be reported and not the severe cases only, and the position of the rupture in the membranes should be carefully noted.

2. **Ovarian Pain.**—Herman knows of no morbid change in a freely movable ovary that causes chronic pain. The so called chronic ovarian pain is either a reflected pain due to some cause other than the ovary, or is due to neurasthenia, or is a manifestation of hysteria. It is not curable either by surgical treatment of the ovaries or by their removal. The only exception to this statement is the reflected pain due to dysmenorrhœa, which is cured when menstruation is stopped. Every kind of pain is worse during menstruation. Pain is not due to dysmenorrhœa simply because it is worse during menstruation. Its origin in dysmenorrhœa must be shown, and other causes excluded, before we can predict cure by the cessation of menstruation.

Proceedings of Societies.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Meeting of Thursday, October 6, 1904.

(*Continued from page 906.*)

Dr. John G. Clark referred to the bearing of the papers upon practical subjects recently discussed before the meeting of the American Gynæcological Society in Boston. This made it possible to view them not only from the standpoint of those present, but to have an expression of opinion from several men actively engaged in obstetrical work. In designating the various times at which a lacerated cervix might be repaired, he would speak of them as: 1, the immediate, within a few hours after delivery; 2, the intermediate, five to ten days after confinement; and, 3, the more remote, at any time after the completion of the puerperal period. Dr. Dickinson, to whom Dr. Hirst had referred, had read a paper on his experience relative to the fifth day repair of the cervix. Dr. Dickinson in general advocated waiting five days for the repair of all lacerations of the cervix, except in the three following classes of cases: 1, those in which there was a profuse hæmorrhage from the laceration; 2, those in which there had been bilateral incisions, as in the Dührssen operation; 3, those in which the cervix was low in the vagina and might easily be reached at the time of the perineorrhaphy. Dr. Clark felt that in the discussion of the immediate and more remote repair of the cervix there must first be taken into account the time when injuries to the perinæum were sutured. Dr. Davis advocated the immediate repair of the perinæum under careful operative technique, and Dr. Clark believed that he had struck the keynote when he insisted upon the latter point, for the same care should be observed in these cases as in any other surgical procedure.

In considering the wisdom of an immediate repair of the perinæum Dr. Clark stated that for several years the consensus of opinion had been in favor of prompt attention to vaginal lacerations at the completion of parturition. Considering the bad surroundings under which these operations were necessarily performed and the uniformly good results following, Dr. Clark did not believe a general departure from this custom justifiable. If under unfavorable conditions these results followed, there might be expected even more perfect healing following the treatment described by Dr. Davis. If it was admitted that the perinæum should be repaired at once, then he could see but one conclusion, that the cervix should be either immediately repaired in meeting Dickinson's primary indications, or, if deferred, at a more remote day after the puerperium was completed. He believed that the primary conditions noted by Dickinson, indicating the immediate repair, were well grounded and he would unquestionably adhere to them. Concerning the five day intermediate repair, he was, however, skeptical as to its ultimate value. All had seen many cases in which healing occurred most satisfactorily when the case was left alone, and he could see no reason for reversing this almost universal observation and the teaching thereupon. If primary healing was not satisfactory, the more remote trachelorrhaphy was so good that to break into a woman's early convalescence and throw her house into turmoil six days after her labor, by giving her ether and subjecting her to an operation at a time when the milk secretion was fairly established and the baby nursing well, was not justified by the surgical exigencies of the case. As he viewed the question, therefore, it was preferable that either an immediate repair or, in the event of delay, a trachelorrhaphy be performed at some more convenient period after the completion of the puerperium.

Dr. Clark said that in the discussion of the immediate repair before the American Gynæcological Society, Clifton Edgar and Cragin, of New York; Williams, of Baltimore; Craig, of Boston, and Wakefield, of San Francisco, had all expressed opinions opposed to the immediate repair of a lacerated cervix. Cragin admitted that it might be done by skilled hands successfully, but that he could not sanction this teaching to students. While Dr. Clark had no doubt that these injuries, if repaired in a well equipped maternity hospital, would do well, yet the vast number of labors in this and all countries occurred in private houses, in the majority of which there were no facilities for the more careful work required for repairing a lacerated cervix. He believed that, while it would be ideal to have all women confined in maternity hospitals, or if in private houses to have an expert in consultation, the domestic environments of the parturient woman were usually such that this would never be the case; consequently these operations must be considered from the standpoint of the conditions under which they would usually be observed. Therefore he believed that if the immediate or five day repair were generally to be adopted, not only would the morbidity, but also the mortality, of puerperal cases overbalance the good which this procedure might do, if solely confined to the hands of the specialist. He considered, however, that Dr. Hirst was quite justified in carrying out this procedure in a maternity hospital, and he agreed with Cragin and others that the teaching of this doctrine was hazardous. If it was the right course to pursue, it should be quite fully sustained by not only the immediate, but the more remote operative results which would subsequently be reported from obstetrical clinics. Until that time, Dr. Clark believed that this procedure would be open to discussion.

Dr. Stricker Coles first spoke of his own results. For the last ten years he had closed all lacerations of the anterior and posterior vaginal walls and in the cervix, if the tear was large, immediately after labor. He had not had to delay in a single case for twenty-four hours, for he prepared for it before delivery. His results in closure of the cervix had not always been good, though better now than at first, for then he did not appreciate fully the elongated condition of the cervix and its rapid involution. The stitches should be placed at the uppermost part of the tear, but should not be placed too far down, as the lumen of the cervix would be narrowed and the flow of lochia retarded. Thus far, Dr. Coles had not had any cases of infection or subinvolution, and he classed the results as fair, with no inconvenience to the patient.

His results with immediate closure of the perinæum, pelvic floor, and anterior vaginal wall had been most satisfactory, even when the tear was complete. He felt that he could add nothing to what Dr. Davis had said regarding lacerations of the vaginal wall. He, however, emphasized the importance of bringing muscle to muscle, and to do this with the buried suture it was often necessary to bring the retracted ends into direct apposition. He tried to obviate the swollen and œdematous condition of the parts, which largely caused the objection to immediate closure, by watching his cases and not allowing the tissue to become devitalized by prolonged pressure. He considered the healthy epithelial cell the best barrier against sepsis, and he endeavored to protect and preserve its continuity.

He had had no experience with the intermediate closure of lacerations, and would await the results of others to see whether sepsis would not be more frequent when raw surfaces were left exposed for five or ten days; also, the effects of an operation at this time on the mother's milk. He did not think the method applicable to the greatest number of cases, because of the expense of a second operation. If the method was taught to students, he believed that many lacerations would not be closed at all, for, if the operation was deferred for five or ten days, it would be neglected or rejected. When done immediately, the operation took a very few minutes, caused the patient no inconvenience and only slight pain, and gave almost as good a result with the cervix and equally good with the perinæum, pelvic floor, and anterior vaginal wall; also, it could be employed at home, in the hospital, and with the rich or poor.

Dr. E. P. **BERNARDY** said that he had questioned for some time why lacerations of the uterus should not be sewed up as well as lacerations of the perinæum. The results in his hands had been very good, without elevation of temperature, and the patients recovered with good results. He emphasized the fact that there must be created a thoroughly good field of asepsis. Everything should be properly prepared, even at the bedside of the patient. Although he had never operated at the intermediate or five or ten day period, since hearing Dr. Hirst's paper he would not hesitate to do so. In his opinion the patient would do better than to run the chance of healing. While twenty-five per cent. of lacerations of the cervix healed, the other seventy-five per cent. were operated upon or the patients lived with lacerated cervices. Dr. Bernardy stitched lacerations of the perinæum immediately after the birth of the child. He cited one case seen in consultation in which there were used twenty-two stitches in the vagina and perinæum, and in which on the ninth day the patient left her bed entirely well and without a sign in perinæum or vagina that there had been a laceration. In cases in which the parts were mutilated and black and blue an attempt should be made to bring the tissues to a normal condition by douching with warm saline solutions before stitching, when the results would invariably be good.

Dr. **GEORGE M. BOYD** thought it would be bad teaching to tell the average family doctor, who must be an obstetrician, to sew up every cervix. Personally, he had not had experience in the intermediate operation, but from Dr. Hirst's results he would be inclined to try it. He agreed in the belief that the average obstetrician had not been sufficiently careful in the past to bring about the proper repair of injuries after labor. In general, he agreed with Dr. Davis in the course outlined in his paper.

Dr. **O. HOPKINSON, JR.**, thought it would be extremely unfortunate if the young graduates were instructed to repair the cervix immediately after labor. In his experience, the tears had been bilateral and the anterior lip was much larger, œdematous, and more easily reached than the posterior. He cited one case in which a man with little experience in the repair of the cervix tried to pull the posterior lip down even with the anterior, with the resultant giving way of the tissues. Therefore he thought that immediate repair of the cervix should be done by some one with experience. He believed it safer, except in the presence of hæmorrhage, to leave it alone for the five days or until later on. He had not himself done the five day operation.

Dr. **THEODORE A. ERCK** stated that the point in the question of the immediate or intermediate repair of the cervix was, How much was the woman going to be benefited? If every young man were taught that he should repair every laceration of the cervix immediately or intermediately, Dr. Erck believed that many cervices would be repaired unnecessarily. The young graduate had not usually at first all the advantages of practising where the necessary aseptic detail could be carried out. Many of these men would become expert in a year or two, but the question should be considered, How much would womankind have to suffer as a result of that operation? Dr. Erck placed stitches for laceration of the perinæum at the termination of labor. He referred to the fact that all had seen, and operated in cases in which the result of the primary repair was a failure, and he suggested the substitution of silkworm gut in these operations, so that the operator would see the result of his operation during the removal of the stitches.

Dr. **RICHARD C. NORRIS** thought that the intermediate operation must be considered from two viewpoints: 1, its practicability; and, 2, its results. Here the practice of obstetrics must be viewed from its highest plane, and the question should be studied especially from the standpoint of results. Whether the operation was practicable in private practice, in the hands of the average doctor, he believed to be an open question. He stated it to be the experience of most men in the past that the immediate operation for laceration of the cervix, unless done for the special indication of hæmorrhage, was not a justifiable one. When there was chosen the intermediate repair, and an examination was made on the sixth, seventh, or eighth day of the puerperium, the cases of spontaneous healing of the cervix would be found to be pretty well advanced, and the experienced surgeon would not operate in such a case. If spontaneous healing had not occurred, the experienced surgeon would operate at this time, and those who had done this work knew that it could be done successfully. Operations on the cervix after the sixth or seventh day, in Dr. Norris's experience, had been quite as successful as the later operations to which Dr. Clark referred. The question was being discussed, he said, from the standpoint of what capable surgeons could do. If equally satisfactory union followed an intermediate operation, which Dr. Norris believed to be the fact, what advantage could accrue to the patient by delay? Referring to Dr. Clark's statement of getting excellent union after the remote operation, he stated that in many cases, while the wound in the cervix had united, the uterus had underfone chronic interstitial changes, and there had been evolved a train of symptoms, which often persisted, that would not exist if the cervix had been repaired at an early date. Viewed, then, from the standpoint of results, Dr. Norris believed that the intermediate operation upon the cervix could be depended upon to give as good union as the remote, and by the early operation the patient was spared a train of ills.

In approaching the study of the best time for the repair of the perinæum and pelvic floor, again, the question must be viewed from the standpoint of results. If it could be demonstrated that better results would follow an immediate operation than could be obtained by the intermediate operation, then Dr. Norris thought it must be taken for granted that the immediate operation should be done, and the advantage of the intermediate cervix repair must be abandoned. Viewed from past experience, the immediate operation had been a success. If it could be demonstrated that the operation on the perinæum had no disadvantages by being delayed, and that equally good results could be obtained, then the combined intermediate repair of both cervix and perinæum would be the ideal treatment from the surgical standpoint. The question narrowed itself down to a matter of personal experience, and Dr. Norris believed that only those men who had done the operation were in a position to criticise it. He expected to operate the next day at the Preston Retreat in a case in which both sulci had been extensively torn seven days before, and nothing had been done to the patient since, except to keep her clean and free from infection. A small amount of granulation tissue was present, the wound gaping, but there had been no fever. If the obstetrician was not surgically clean, if he had carried dirty fingers into the vagina, if he had not conducted the labor with the highest grade of asepsis and antisepsis, he had better not operate immediately or after a few days.

(*To be concluded.*)

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Public School Closed.—The Gratz School, Twenty-third and Jefferson Streets, Philadelphia, was closed on November 3rd for disinfection. Scarlet fever and diphtheria had appeared among the pupils.

Book Notices.

Adolescence. Its Psychology and its Relations to Physiology, Anthropology, Sociology, Sex, Crime, Religion, and Education. By G. STANLEY HALL, Ph. D., LL. D., President of Clark University and Professor of Psychology and Pedagogy. Two volumes, 8vo. New York: D. Appleton & Co., 1904. (Price, cloth, $7.50.)

"The only complete history is the story of the influences that have advanced or retarded the delopment of man toward his completion, always ideal and forever in the future." Dr. Hall is not the only man who has taken this view of history, which he sets forth in the preface of his new book, but he is the only man who has taken the trouble to collect and sort and judge the facts that underlie these influences, which have advanced or retarded the development of man. He maintains that the child and the race are each a key to the other. The child as he passes through the phases of his development follows certain well defined paths that will lead him to varying results, according to how he has been helped or hindered in his journey through adolescence.

Agreeing only in part with Rousseau that primal hereditary impulses and the fundamental traits of savagery should have their fling till twelve, he states that the child is "not only a product of nature, but a candidate for a highly developed humanity." Education, therefore, is the theme of the work. How, when, and where, by whom and to what degree, shall the young person of the land be educated? How much education is he capable of gaining during the various years of his youth? At what time should the faculties of observation and attention be cultivated, and what years see the development of ideas of morality, religion, and æsthetic enjoyment? All these questions have been threshed out by the pedagogues. They have read books and they have fitted the children under their care to their theories, casting out the misfits. But Dr. Hall has studied the children and the ends to which they are to be fitted, and he has presented some conclusions which one cannot but feel are sound. For instance, he says, in regard to the time when automatic powers are at their apex, that the teaching should partake of the nature of drill. The necessities of discipline may, he admits, be "hard for the health of body, sense, mind, as well as for morals, for the pedagogic art consists in breaking the child into them as intensively and as quickly as possible with minimal strain and with the least amount of coquetting, for natural interest, and in calling medicine confectionery." With this comes the true education, which is due perhaps to environment or the personnel of the teacher.

The book is so full of meaty suggestions, so simply frank in statement of what is, as distinguished from what our generally accepted ideas may be, that it is an act of progressive waking up to read it; and though one would occasionally like to go to Dr. Hall in a humble, seeking way, and ask him what those words meant with which he built some of his pedagogic paragraphs, yet the work is one which every one, from the college president to the public school primary teacher, can read with absorbing interest; and as for the father and mother and the physician, they would each be better able to cope with individual problems of handling children, sick and well, after reading this book.

A Practical Treatise on Genitourinary and Venereal Diseases and Syphilis. By Robert W. Taylor, A. M., M. D., Clinical Professor of Genitourinary Diseases at the College of Physicians and Surgeons (Columbia University), New York; Consulting Genitourinary Surgeon to Bellevue Hospital and to City (Charity) Hospital, New York. Third Edition, Thoroughly Revised. With 163 Illustrations and 39 Plates in Colors and Monochrome. New York and Philadelphia: Lea Brothers & Co. Pp. 10-17 to 757.

The appearance of a new edition of Dr. Taylor's classical treatise is an occurrence on which the profession is to be congratulated. It is seldom that a man of such acuteness of observation and maturity of experience gives to the preparation of succeeding editions of a textbook the care that is exemplified on almost every page of the volume before us. Dr. Taylor has shown his usual wisdom in keeping the scope of the work still restricted to its original field while amplifying such poritions of it as progress demands. He has added twenty-five new text illustrations and twelve plates, and the added pictures are quite up to the high standard set in previous editions. It is easy to see that his great work will long maintain the leading position that it has heretofore held.

Refraction, and How to Refract. Including Sections on Optics, Retinoscopy, the Fitting of Spectacles and Eye Glasses, etc. By James Thorington, A. M., M. D., Professor of Diseases of the Eye in the Philadelphia Polyclinic and College for Graduates in Medicine, etc. Third Edition. With 215 Illustrations, 13 of which are colored. Philadelphia, 1904. Pp. xviii-306. P. Blakiston's Son & Co. (Price, $1.50.)

The rapidity with which successive editions of this work follow each other is an evidence of its popularity among the author's students, for whom it was primarily designed. In the present edition fifteen illustrations have been added, together with descriptions of several new instruments. It is one of the most readable small books published on the subject; and barring the use of the word "refract," the only criticisms we wish to make are two—first, to express a regret that the author does not amplify his work and bring it up to the needs of the only person who wants it, the specialist; and, second, to call attention to the fact that the impression is likely to be made on the reader that the use of a cycloplegic is necessary to do careful refractive work in the majority of cases. Of course this is not true; it is a serious error to consider it such, and it is not likely that the author would wish to appear to hold such a view.

PUBLISHERS' ANNOUNCEMENT.

E. B. Treat & Co., 241 West Twenty-third Street, New York, announce:

Diseases of the Stomach and Intestines, with an account of their relations to other diseases, and the most recent methods applicable to the diagnosis and treatment of them, designed to meet the need of general practitioners. By Boardman Reed, M. D., Philadelphia, in a series of eighty-two lectures, complete in one volume. 1,024 pages. Illustrated. Half morocco, $6.00; cloth, $5.00.

Blood Pressure, as Affecting Heart, Brain, Kidneys, and General Circulation. A practical consideration of Theory and Practice. By Louis F. Bishop, A. M., M. D., physician to Lincoln Hospital and French Hospital, New York. 12mo, cloth, $1.00.

Disorders of Metabolism and Nutrition. By Professor Dr. Carl von Noorden, physician in chief of City Hospital, Frankfort-on-Main, and Assistants. Authorized American edition edited by Boardman Reed, M. D.

The fifth of the series of monographs, *Saline Therapy,* 75 cents, is now ready. The preceding issues are *Obesity,* 50 cents; *Nephritis,* $1.00; *Colitis* (Colica mucosa), 50 cents; *Acid Autointoxications,* 50 cents; which will be followed shortly by *Gout, Diabetes, Limitations of Liquid Food,* etc.

BOOK AND MAGAZINE NOTES.

A very singular slip is made by the usually accurate Dr. Conan Doyle in his Sherlock Holmes story, The Adventure of the Golden Pince-Nez, in the latest household number of *Collier's Weekly.* The heroine is spoken of by the infallible Holmes as being short sighted, although the pince-nez is said to have very powerful *convex* lenses. If this goes on, we shall have an envious rival of our physician author, as in the case of a successful French writer of similar stories, endeavoring to entertain us with a history of The Old Age of Sherlock Holmes.

In *To Windward* Dr. Henry C. Rowland, whose knowledge of the sea, its navigators, and its argot, is undoubtedly accurate and profound, has given us a stirring yarn. We hope that, in stating that this is one of the best sea stories we have read, we are not actuated by mere professional courtesy. To Windward, if not one of the "six best sellers," this year, ought to be known in the future when its epicene contemporaries are forgotten.

Medical Latin, by W. T. St. Clair, A. M., comes from P. Blakiston's Sons & Co. It is an attempt to supplement, in a great hurry, a small part of the deficiencies of a medical student's preliminary education. Perhaps, in the hands of an exceptionally bright student, this volume might enable him to use medical Latin understandingly, but, in view of our own weary struggles with the dead tongue and the results thereof, we doubt it. An occasional slip is noticeable: molimen is defined as a bearing down pain, a widely extended definition. We should not have defined amygdala simply as an almond, in view of its wider medical use in compounds. Angina is defined simply as quinsy. Antalgia is given as meaning pain or ache. Cheirurgus is a very archaic spelling. There must be other errors, since we find these under the first three letters of the alphabet. However, the problem the compiler set himself was a difficult one, and as difficult it must have been to know where to draw the limit of his work, as the vocabulary, small as it is, contains many words unnecessary to the medical student as such.

The November *Cosmopolitan* has a poem, Omar Repentant, by Richard Le Gallienne. It is the fashion to sneer at this author for his mild and gentle method. We have not read, however, a more powerful argument against drinking for the sake of drink than this strong and clever parody of the *Rubaiyat,* as misread by foolish young men. Were "thou," and "a loaf of bread," ever present with the "jug of wine," in other words, if people drank only with their meals, and in refined company, these rebukes would not be required.

We have received a *Visiting and Pocket Reference Book for 1905,* with the following contents: Table of signs and how to keep visiting accounts, obstetrical memoranda, clinical emergencies, poisons and their antidotes, dose table, blank leaves for weekly visiting list, memoranda, nurses' addresses, clinical, obstetrical, birth, death, and vaccination records, bills rendered, cash received, articles loaned, money loaned, miscellaneous, calendar for 1905. This call book will be furnished by the Dios Chemical Company, of St. Louis, Mo., on receipt of 10 cents for postage.

BOOKS, PAMPHLETS, ETC., RECEIVED.

Blood Pressure. As Affecting Heart, Brain, Kidneys, and General Circulation. A Practical Consideration of Theory and Treatment. By Louis Faugères Bishop, A. M., M. D., Physician to the Lincoln Hospital, New York; Late Chairman of the Section on Medicine of the New York Academy of Medicine, etc. Pp. 112. New York, 1904: E. B. Treat & Co. [Cloth, $1.00.]

Weather Influences. An Empirical Study of the Mental and Physiological Effects of Definite Meteorological Conditions. By Edwin Grant Dexter, Ph. D., Professor of Education at the University of Illinois. With an Introduction by Cleveland Abbe, LL. D. Pp. xxi-286. New York, 1904: The Macmillan Company. London: Macmillan & Co., Ltd.

Textbook of Human Physiology. Including Histology and Microscopical Anatomy, with Especial Reference to the Practice of Medicine. By Dr. L. Landois, Professor of Physiology and Director of the Physiological Institute in the University of Greifswald. Tenth Revised and Enlarged Edition Edited by Albert P. Brubaker, M. D., Professor of Physiology and Hygiene in the Jefferson Medical College; Professor of Physiology in the Pennsylvania College of Dental Surgery, etc. Translated by Augustus A. Eshner, M. D., Professor of Clinical Medicine in the Philadelphia Polyclinic; Physician to the Philadelphia Hospital, etc. Pp. xxviii-1011, with 394 Illustrations. Philadelphia, 1904: P. Blakiston's Son & Co.

Vital Statistics of the City of Chicago for the Years 1899 to 1903, Inclusive. Department of Health, City of Chicago. Pp, 128. Chicago, 1904.

International Clinics. A Quarterly of Illustrated Clinical Lectures, and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pædiatrics, Obstetrics, Gynæcology, Orthopædics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene, and Other Topics of Interest to Students and Practitioners, by Leading Members of the Medical Profession Throughout the World. Edited by A. O. J. Kelly, A. M., M. D., Philadelphia, with the Collaboration of William Osler, M. D., Baltimore; John H. Musser, M. D., Philadelphia; James Stewart, M. D., Montreal; J. B. Murphy, M. D., Chicago; A. McPhedran, M. D., Toronto; Thomas M. Rotch, M. D., Boston; John G. Clark, M. D., Philadelphia; James J. Walsh, M. D., New York; J. W. Ballantyne, M. D., of Edinburgh; John Harold, M. D., London; Edmund Landolt, M. D., Paris; Richard Kretz, M. D., Vienna; with Regular Correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels, and Carlsbad. Volume III. Fourteenth Series, 1904. Pp. viii-302. Philadelphia, 1904: J. B. Lippincott Company. [Cloth, $2.00 net.]

Syphilis and Gonorrhœa. By C. F. Marshall, M. D., Ch. B., Senior Assistant Surgeon to the Hospital for Diseases of the Skin, Blackfriars, London; Formerly Resident Medical Officer to the London Lock Hospital, etc. Pp. viii-267. London, 1904: Rebman, Limited. New York. 1904: Rebman Company.

The Principles of Relief. By Edward T. Devine, Ph. D., LL. D., Author of *The Practice of Charity;* General Secretary of the Charity Organization Society of the City of New York. Pp. vi-495. New York, 1904: The Macmillan Company. London, 1904: Macmillan & Co., Ltd. [$2.00 net.]

Health, Strength, and Power. By Dudley Allen Sargent, A. M., Sc. D., M. D., Director of Hemenway Gymnasium, Harvard University. Pp. x-256, Illustrated. New York and Boston: H. M. Caldwell Company.

Ups and Downs of a Virginia Doctor. By C. A. Bryce, M. D. Pp. viii-137, Illustrated. Ashland, Va., 1904: Ashland Printing Company. [$1.00.]

Diseases of the Nose, Throat, and Ear, and Their Accessory Cavities. By Seth Scott Bishop, M. D., D. C. L., LL. D., Author of *The Ear and Its Diseases;* Honorary President of the Faculty and Professor of the Diseases of the Nose, Throat, and Ear in the Illinois Medical College, etc. Third Edition, Thoroughly Revised and Enlarged. Pp. xxiii-564, Illustrated with 94 Colored Lithographs and 230 Additional Illustrations. Philadelphia, 1904: F. A. Davis Company. [Extra cloth, $4.00 net; sheep or half Russia, $5.00 net.]

Handbook of the Anatomy and Diseases of the Eye and Ear. For Students and Practitioners. By D. B. St. John Roosa, M. D., LL. D., Professor of the Diseases of the Eye and Ear in the New York Post-Graduate Medical School; Formerly President of the New York Academy of Medicine, etc., and A. Edward Davis, A. M., M. D., Professor of the Diseases of the Eye in the New York Post-Graduate Medical School; Fellow of the New York Academy of Medicine. Pp. xiv-297. Philadelphia, 1904: F. A. Davis Company. [Extra cloth, $1.00 net.]

Twenty-second Annual Report of the Provincial Board of Health of the Province of Ontario, Canada, for the Year 1903. Printed by Order of the Legislative Assembly of Ontario. Pp. 105. Toronto, 1904: L. K. Cameron.

Miscellany.

Radium and Parthenogenesis.—*Medicine,* for November, 1904, in discussing this subject, says: Piffard in a recent discussion of the effects of radium claims that while it at times arrests development, it also (as shown in the production of parthenogenesis) stimulates it. This is an instance of the very frequent error which ignores that balance, not excess in one direction, constitutes the normal. It ignores also the struggle for existence between the organs demonstrated by Roux nearly a quarter of a century ago (*Die Kampf der Theile im Organismus*).

Resumption of a function normal in animals but ordinarily absent in man is an expression of degeneracy, not of advance, since it destroys the physiological balance previously existent. Such destruction, according to Virchow, constitutes a pathological event. Parthenogenesis therefore in man or mammals is as much a degeneracy as would be reappearance of the pineal body as an eye—a condition normal in a New Zealand lizard. Parthenogenesis is an abnormal stimulation of disappearing structure of the ovum, whether such stimulation be produced by radium, by the normal salt solution, by a mental impression (as a French court of the sixteenth century adjudged to be possible), by an astral body (as was alleged in an Italian bastardy case), or by the malign phase of Christian science, as at one time claimed by Mrs. Eddy.

Reproduction has evolved from unicellular through complex parthenogenesis to bisexual types. The ovum, as E. C. Spitzka points out, possesses (*Medicine,* 1896), an inherent activity independently of fructification. How far this may extend in the direction of more mature development is shown in parthenogenesis, or virgin generation. Bees, some butterflies, ants, and wasps notoriously multiply their kind without sexual congress. While as a rule parthenogenetic offspring are themselves incapable of further procreating their kind, there are many exceptions. The aphides multiply for many generations without the intervention of a male. As Weigenbergh has shown, the silk moth can be propagated so long as the male element is permitted to act at every fourth generation. The *Artemsia salina* (a minute crustacean living in saline springs) reproduces its kind for years without a male being present, males being produced at different intervals only (Von Siebold). Among the vertebrates, parthenogenetic development has also been observed, though rarely reaching maturity. Segmentation occurs in the unfertilized ova of the chicken (Oellacher), of the fish (Burnett and

Agassiz), and of frogs (Moquin Tanden). Spitzka has seen a blastoderm form in unfertilized ova of the toadfish (*Batrachus tau*). Henson isolated the oviducts of a rabbit, thus rendering the admission of spermatozoa impossible, while the ova, discharged at heat, were compelled to remain in their oviducts. Three years later he killed the animal and found the ova had developed into twisted, club-shaped, hollow sacs. Ovarian dermoid cysts containing bones recognizable as with teeth, hair, and skin, rudimentary intestinal, glandular, and cerebral nervous system are evidences of parthenogenetic development.

While such development, so far as known, is always abortive in man, and while, as Washington Irving remarks, the ingenuous maiden who to-day would attribute conception to any other cause than sexual congress would find it difficult to overcome popular prejudice, still embryology, while declaring immaculate generation improbable, cannot pronounce it impossible. A worker bee is a highly organized creature with a well developed nervous system, wonderful sense organs, intricate muscular apparatus, yet it may be an offspring of an unimpregnated queen bee. What is a regular occurrence in one class of animals is observed exceptionally in another class.

Parthenogenetic reproduction, however, tends to exhaust the type in animals where sexual reproduction has developed, since it entails upon one organism functions assumed by two. During the passage of the ovum from the parthenogenetic type to the bisexual degeneracies occur before the bisexual ovum becomes fitted for impregnation. A structure of the ovum (which Boveri has called the centrosome) atrophies, disappears, and is replaced in function by a subtle osmosis between the sexes in certain infusoria, or, at a higher stage, by the spermatozoön. In certain invertebrates, as Loeb has shown, normal salt solutions will supply nutriment sufficient to restore the function of the centrosome. It is obvious on ordinary principles governing stimulation of physiological atrophies that radium simply stimulates the centrosome at the expense of higher development, and hence constitutes an arrest of type development in the ovum.

Poisoning by Jamestown Weed.—In the *Old Dominion Journal of Medicine and Surgery,* for November, 1904, Dr. St. George T. Grinnan reports a case as follows: On September 4, 1904, I was called to see a boy five years of age. The child was delirious, his hands grasped at imaginary objects. Every few minutes he gave a tetanic move. The face, body, and limbs were flushed, the pupils widely dilated, the skin and mouth very dry, the lips moved, and now and then some word in regard to his toys were spoken. The abdomen was distended, temperature 101° F., pulse 120, respiration not taken, but was not very rapid. Four hours previous to this the child was perfectly well. The child's playmate was taken ill with the same symptoms and seen by another physician. The first to attract attention was the fact that the child was unable to walk. It was evidently a case of poisoning, and the wide dilatation of the pupils and flushed skin pointed to belladonnæ. On enquiry I was told that the children were playing horses and ate "grass." I asked for some of the grass, and a young bud of Jamestown weed was brought.

A stomach tube was inserted and only liquid removed. I gave an enema of castor oil, but it was not effectual. I then gave one teaspoonful of castor oil every hour for five hours, and this was not effectual. I washed out the stomach again. I then gave two and one half teaspoonfuls of syrup of ipecac, but no vomiting occurred. Later sweet spirits of nitre was given, as the child could not urinate, and had not passed water for twelve hours. This also being ineffectual, I passed a catheter and removed half a pint of urine. The condition had not improved, the bowels could not be moved, the emetic was not effectual, the urine could be removed only by a catheter, the amount secreted was small. I then gave one twentieth of a grain of muriate of pilocarpine hypodermatically and wrapped the body in a blanket. In the course of two hours the child was wet with perspiration and went into a deep sleep. After sleeping several hours the child awoke, the bowels moved, and the urine was voided. The symptoms rapidly passed off. The companion of the child I saw was affected the same way. I found a large growth of Jamestown weed in the back yard of the neighboring premises where the children had been playing. The active principle of the datura stramonium is daturine, and is precisely the same as atropine, and therefore the action of stramonium is almost the same as that of belladonna. The atropia belladonna and the datura stramonium belong to the same botanical family, the natural order of solanaceæ.

Meeting of the Michigan State Board of Health.—The Michigan State Board of Health met in the capitol, October 14, 1904. The members present were: Honorable Frank Wells, president; Honorable Henry A. Haigh, Charles M. Ranger, and Henry B. Baker, secretary.

After the auditing of bills and accounts and the disposal of other routine work, the board discussed proposed measures relating to public health as suggested by bills drafted by the secretary and submitted to the board for their consideration at this time. It was decided to put forth a special effort at the coming session of the legislature to urge the necessity of a State sanatorium for consumptives in Michigan, and to assist, in every way possible, the State medical society in their endeavor to have such a bill become a law. Other subjects of importance relating to proposed public health legislation were discussed and referred to the committee of this board on public health legislation.

It was decided to hold a meeting of this board in Lansing, November 16th, for the purpose of conducting an embalmers' examination. Printed notice of the examination is to be distributed to the embalmers as soon as practicable. It was decided that the board would conduct an embalmers' examination at Lansing the third Wednesday in November of each year, and in the Upper Peninsula the third Wednesday of August of each alternate year, beginning with 1905.

A number of embalmers having allowed their licenses to lapse, through accident, neglect, or failure properly to understand the requirements of the law on the subject, asked the board to make the following rule on the subject: An embalmer who fails to renew or revive his license as provided by law, may be granted a new license by making a new application and payment of a fee of five dollars, and without further examination, *provided* that his rating at the examination at which he received his license was 85 per cent. or over and the application for a new license be made within six months after the time provided in the law for the revival of the old license.

A new edition of 25,000 copies of the leaflet on the restriction and prevention of pneumonia was ordered printed. The board ordered printed 11,000 copies of the amended pamphlet on the restriction and prevention of typhoid fever.

Secretary Baker presented results of compilations of the evidence in the special reports of health officers for several years, on the relative importance of disinfection and isolation in measles, and in whooping cough, which indicate that prompt isolation is of greater importance in the restriction of measles and also of whooping cough than is disinfection. This indicates that the germs of these two diseases do not maintain their vitality for such long periods of time as do the germs of diphtheria and scarlet fever. On the other hand, measles is spread directly from the patient in the early stage of the disease. Eighteen times as many cases occurred in those outbreaks of measles in which both isolation and disinfection were neglected as in the outbreaks in which they were both enforced. Although isolation was of most importance, there were twenty-five per cent. fewer cases where both isolation and disinfection were enforced than where only isolation alone was enforced. Although isolation proved to be of more importance than disinfection, for the restriction of whooping cough, there was an average of nearly one case less in each outbreak where both isolation and disinfection were enforced than where isolation alone was enforced.

Mr. Ranger reported outlines of items considered, conclusions reached, and actions taken at the recent National Conference of State Boards of Examiners of Embalmers. Representatives of the examining boards of twenty-seven States were present at that meeting, and subjects of importance were discussed. In only a few of the States is the subject under the control of the State board of health. The very great difference in the rules of the different States in regard to the transportation of dead bodies, prompted the appointment by the conference of a committee to endeavor to secure the passage of a national law providing for uniform rules of transportation from one State to another.

Mr. Haigh gave an interesting report of facts obtained by him in his attendance at the recent Congress on Tuberculosis.

Dr. Baker made a report of his attendance at the recent meeting of the International Congress of Arts and Sciences, giving in brief an account of the subjects discussed in the sections of the congress which were of interest from a public health standpoint, more especially the section on public health, of which Surgeon-General Wyman, of the United States Public Health and Marine Hospital Service, was the chairman. Professor Sedgewick, of the Institute of Technology, Boston; Dr. Lederle, Health Commissioner of New York; Dr. Reynolds, Health Commissioner of Chicago; Professor Councilman, of Harvard University; Dr. Osler, of Johns Hopkins University; Dr. Ross, of the Liverpool School of Tropical Medicine; Dr. Kitasato, the talented bacteriologist of Japan, were among the eminent men who contributed to the very great success of the meeting.

Official News.

Public Health and Marine Hospital Service:

List of Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the Public Health and Marine Hospital Service for the seven days ending November 2, 1904:

Clark, Taliaferro, Passed Assistant Surgeon. To proceed to Baltimore, Md., for temporary duty in connection with inspection of aliens, relieving Assistant Surgeon A. D. Foster. October 28, 1904.

Cumming, H. S., Passed Assistant Surgeon. Relieved from duty as member of board for examination of Assistant Surgeon J. W. Amesse to determine his fitness for promotion to the grade of passed assistant surgeon. October 29, 1904.

Foster, A. D. Relieved from duty at Baltimore, Md., and directed to proceed to Naples, Italy, and report to Passed Assistant Surgeon J. M. Eager for duty in the office of the United States Consul. October 10, 1904.

Goldberger, Joseph, Passed Assistant Surgeon. Relieved from duty at Tampico, Mexico, and directed to proceed to Washington, D. C., and report at bureau preliminary to assignment to duty in the Hygienic Laboratory for course of instructions. October 31, 1904.

Gwyn, M. K., Assistant Surgeon. Relieved from duty at Jolo, P. I., and directed to proceed to the United States and report arrival at San Francisco, Cal. October 26, 1904.

Lumsden, L. L., Passed Assistant Surgeon. Relieved from duty at Vera Cruz, Mexico, and directed to proceed to the Immigration Depot, New York, and report to Surgeon G. W. Stoner for duty. October 31, 1904.

McClintic, T. B., Passed Assistant Surgeon. To report to Director, Hygienic Laboratory, for duty. October 27, 1904. Granted leave of absence for seven days from October 31, 1904, under paragraph 191 of the regulations.

Peckham, C. T., Surgeon. Granted extension of leave of absence for ten days from November 8th.

Richardson, T. F., Passed Assistant Surgeon. Relieved from duty at Laredo, Texas, and directed to proceed to Savannah, Ga., and assume command of the service, relieving Surgeon S. D. Brooks. October 25, 1904.

Richardson, T. F., Passed Assistant Surgeon. Granted leave of absence for fifteen days. October 31, 1904.

Robertson, H. McG., Assistant Surgeon. To proceed to Baltimore, Md., and assume temporary charge of service during absence of Assistant Surgeon C. W. Wille. October 25, 1904.

Smith, A. C., Passed Assistant Surgeon. To proceed to New York, N. Y., and report to chairman of board of examiners for examination to determine his fitness for promotion to the grade of surgeon. October 25, 1904.

Trotter, F. E., Passed Assistant Surgeon. Detailed as member of board for examination of Assistant Surgeon J. W. Amesse to determine his fitness for promotion to the grade of passed assistant surgeon. October 29, 1904.

Woods, C. H., Pharmacist. Granted leave of absence for fifteen days from October 27th.

Board Convened.

Board convened to meet at the marine hospital, Chelsea, Mass., November 2, 1904, for the physical examination of an officer of the Revenue Cutter Service. Detail for the board—Surgeon R. M. Woodward, chairman. Assistant Surgeon W. C. Rucker, recorder.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending November 5, 1904:

De Valin, Hugh, Doctor. Appointed an acting assistant surgeon from October 26, 1904.

Geiger, A. J., Assistant Surgeon. Detached from the Naval Hospital, Yokohama, Japan, and ordered home.

Hart, G. G., Acting Assistant Surgeon. Ordered to Marine Barracks, Dry Tortugas, Fla.

Lando, M. E., Doctor. Appointed an assistant surgeon from October 26, 1904.

Sutton, R. L., Assistant Surgeon. Detached from the Naval Hospital, New York, and ordered to the *Massachusetts.*

Winn, C. K., Doctor. Appointed an acting assistant surgeon from October 26, 1904.

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending November 5, 1904:

Bingham, E. G., First Lieutenant and Assistant Surgeon. Left San Francisco, Cal., on the *Sherman, en route* to Manila, P. I.

Birmingham, H. P., Major and Surgeon. Relieved from duty at Washington Barracks and ordered to report to the Commanding General of the Department of Texas for duty as chief surgeon of that department.

Duval, D. F., Captain and Assistant Surgeon. Leave of absence extended fifteen days.

Ford, J. H., First Lieutenant and Assistant Surgeon. Granted two months' leave of absence, to take effect about November 15, 1904.

Geer, C. C., First Lieutenant and Assistant Surgeon. Returned from sick leave of absence in General Hospital, Washington Barracks, D. C.

Jones, P. L., First Lieutenant and Assistant Surgeon. Ordered to proceed from Fort Monroe, Va., to New York city, for duty as transport surgeon on the *Sumner*.

Owen, William O., Major and Surgeon. Granted thirty days' leave of absence.

Pipes, Henry F., First Lieutenant and Assistant Surgeon. Left San Francisco, Cal., on the *Sherman, en route* to Manila, P. I.

Polhemus, A. S., Major and Surgeon. Ordered before the Army retiring board at Fort Leavenworth, Kan., for examination.

Purviance, William E., Major and Surgeon. Left San Francisco, Cal., on the *Sherman, en route* to Manila, P. I.

Stiles; Henry R., Captain and Assistant Surgeon. Ordered to report to the commanding officer at Washington Barracks, D. C., for duty as surgeon.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the period from October 29, to November 4, 1904:

Place.	Date.	Cases.	Deaths.
Smallpox—United States.			
California—San Francisco	Oct. 15-22	1	
Illinois—Chicago	Oct. 22-29	14	
Michigan—At 50 places	Oct. 15-22	Present.	
Michigan—Grand Rapids	Oct. 22-29	1	
Minnesota—Hennepin County	Oct. 17-24	11	
Minnesota—Ramsey County	Oct. 17-24	5	
Minnesota—Stearns County	Oct. 17-24	47	
Missouri—St. Louis	Oct. 22-29	8	2
Pennsylvania—Philadelphia	Oct. 22-29	1	
Tennessee—Memphis	Oct. 22-29	1	
Wisconsin—Milwaukee	Oct. 22-29	9	
Smallpox—Foreign.			
Africa—Cape Town	Sept. 17-24	4	
Austria-Hungary—Prague	Oct. 8-15	7	
Belgium—Brussels	Oct. 8-15		1
Brazil—Bahia	Oct. 1-8	21	2
China—Hongkong	Sept. 10-17	1	1
France—Paris	Oct. 8-15	10 Imported.	
Great Britain—Glasgow	Oct. 14-21	1	
Great Britain—Leeds	Oct. 8-22	4	
Great Britain—Manchester	Oct. 8-15	1	
Gt. Britain—Newcastle-on-Tyne	Oct. 8-15	5	
Great Britain—Nottingham	Oct. 8-15	2	
India—Bombay	Sept. 28-Oct. 4	4	
Italy—Palermo	Oct. 8-15	11	2
Russia—Moscow	Oct. 1-8	3	2
Russia—Odessa	Oct. 8-15	1	
Russia—St. Petersburg	Sept. 25-Oct. 8	11	1
Spain—Barcelona	Oct. 10-20		2
Turkey—Alexandretta	Oct. 10	Epidemic.	
Turkey—Beirut	Oct. 8-15	Present.	
Turkey—Constantinople	Oct. 2-17		39
Yellow Fever.			
Cuba—Punta de Sal, Santiago	Oct. 24	1	
Ecuador—Guayaquil	Sept. 30-Oct. 5		1
Mexico—Coatzacoalcos	Oct. 15-22	2	2
Mexico—Merida	Oct. 16-22	1	
Mexico—Tehuantepec	Oct. 16-22	1	
Mexico—Texistepec	Oct. 16-22	53	5
Cholera.			
India—Bombay	Sept. 27-Oct. 4		7
India—Madras	Sept. 24-30		1
Persia—Enseli	Oct. 17	Epidemic.	
Persia—Resht	Oct. 17	120 to 140 deaths daily.	
Persia—Senemditah	Oct. 17	Epidemic.	
Russia—Trans-Caspian district	Sept. 17-29	44	23
Turkey—Bagdad and vicinity	Sept. 12-26	1,513	1,017
Plague.			
Brazil—Bahia	Oct. 1-8		1
China—Hongkong	Sept. 10-17	4	4
Egypt—Alexandria	Sept. 10-30	12	8
Egypt—Port Said	Sept. 17-23	1	
Great Britain—South Shields	Sept. 19	1 case on Ss. *Bishopsgate* from Rosario, via Hamburg.	
India—Bombay	Sept. 27-Oct. 4		80
India—Karachi	Sept. 25-Oct. 2	14	8
Mauritius	July 8-Aug. 4	8	6
Peru—Eten	Oct. 8	Present.	
Peru—Lima	Sept. 1-Oct.	13	
Peru—Pacasmayo	Oct. 8	Present.	

Births, Marriages, and Deaths.

Married.

Buffum—Campbell.—In Providence, Rhode Island, on Tuesday, November 1st, Dr. William H. Buffum and Miss Edith Campbell.

Ferrel—Scarritt.—In Cambridge, Massachusetts, on Tuesday, November 1st, Dr. Henry Eugene Ferrel and Miss Louise F. Scarritt.

Freer—McCalmont.—In Washington, D. C., on Wednesday, October 26th, Dr. James A. Freer and Miss Elizabeth McCalmont.

Hixson—Connette.—In Beaumont, Ohio, on Wednesday, November 2nd, Dr. George N. Hixson and Miss Della Mae Connette.

Kennedy—Kilbourne.—In Boston, Massachusetts, on Friday, October 21st, Dr. Arthur Kennedy and Miss Henrietta Kilbourne.

McBryde—Rodgers.—In Kingston, Georgia, on Wednesday, October 26th, Dr. Edwin McBryde and Miss Ruth Rodgers.

McCarthy—Clark.—In Chicago, Illinois, on Tuesday, October 25th, Dr. Thomas H. McCarthy and Miss Ivy Genevieve Clark.

McLaughlin—Moffat.—In San Francisco, California, on Saturday, October 29th, Dr. Alfred McLaughlin and Miss Emma Moffat.

Read—Thorn.—In Washington D. C., on Saturday, October 29th, Dr. Benjamin J. Read and Miss Margaret V. Thorn.

South—Bradley.—In Louisville, Kentucky, on Tuesday, November 2nd, Dr. John South and Miss Christine Bradley.

Wilson—Bean.—In Binghamton, N. Y., on Thursday, October 20th, Dr. Charles Sumner Wilson and Miss Florence Love Bean.

Died.

Adams.—In Baltimore, Maryland, on Friday, October 28th, Dr. Frederick G. Adams, of Pocomoke City, in the sixty-sixth year of his age.

Davis.—In Huntsville, Alabama, on Wednesday, October 19th, Dr. De Witt C. Davis, in the seventy-fifth year of his age.

Dean.—In Haywards, California, on Tuesday, October 25th, Dr. A. J. Dean, in the forty-seventh year of his age.

Draper.—In Westford, Massachusetts, on Sunday, October 30th, Dr. Joseph Butler Draper, in the forty-third year of his age.

Elliott.—In Mansfield, Pennsylvania, on Saturday, October 22nd, Dr. C. V. Elliott.

Jones.—In Cincinnati, Ohio, on Monday, October 31st, Dr. John Ely Jones, in the seventy-first year of his age.

Lynde.—In Buffalo, N. Y., on Tuesday, October 25th, Dr. Samuel Huston Lynde, in the thirty-sixth year of his age.

Myers.—In Clarence Centre, N. Y., on Friday, September 30th, Dr. Reuben S. Myers, in the sixty-sixth year of his age.

Pressler.—In Boston, Massachusetts, on Thursday, October 27th, Dr. Florence Solomon-Pressler, of Attleboro.

Price.—In Philadelphia, Pennsylvania, on Saturday, October 29th, Dr. Mordecai Price, in the sixty-first year of his age.

Still.—In Senatobia, Mississippi, on Monday, October 24th, Dr. Claude Still.

Thomas.—In Baltimore, Maryland, on Saturday, October 29th, Dr. Charles H. Thomas, of Cincinnati.

Webster.—In St. Louis, Missouri, on Wednesday, October 26th, Dr. Edwin E. Webster, in the eighty-third year of his age.

Williams.—In Westside, Mississippi, on Tuesday, October 18th, Dr. William G. Williams, in the ninety-fifth year of his age.

Windham.—In Pineview, Georgia, on Friday, October 21st, Dr. Willard Windham.

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AND

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Lectures and Addresses

INTERNAL SECRETIONS.*

By WILLIAM HANNA THOMSON, M. D., LL. D.,

NEW YORK.

The archæological world is just now in a state of mingled wonder and expectancy, caused by the discoveries made in extensive excavations at the sites of ruined cities in the island of Crete. Legends of old Greece told of a marvellous labyrinth constructed at the capital of the great king Minos; and now, sure enough, a huge ruin showing a most intricate maze of passages and enclosures has been partially opened up, with results which wholly change our entire perspective of ancient history. The palaces of Knossus prove that what we term the great ancient Greek race of Homer's poems is a new race. Before them, there flourished probably for three thousand years a wholly different people, with an advanced civilization under which great cities and temples and public works were erected all over what was afterwards the Greek world; a people whose ships ruled the waves of the Mediterranean, and who had close commercial and political relations with the early dynasties of Egypt and of Babylonia. Every antiquarian and ethnologist, therefore, now wonders what will come next. Already long prevalent theories or opinions about the early history of Europe have been wholly disproved by these explorations, and every few months learned societies receive some farther reports of what have come to be graphically termed " new finds," and which put a complete extinguisher upon many a learned speculation of twenty years ago.

The present state of the literary world, arising from the constant additions to its knowledge of the true beginnings of history, is quite analogous to that of the medical world, from the ceaseless additions to *its* knowledge, as it continues laboriously exploring that great living labyrinth—the human body. We really do not know what is going to come next. Scarcely do we settle down to a comfortable assurance that certain facts or principles in our physiology, or in our pathology, have become fairly established, ere reports come from our laboratories of this or that " new find," which at least tells us how ignorant we have been, if not worse than that, how much we have to unlearn.

It has seemed to me, therefore, that the occasion of an anniversary address to this academy could fittingly be improved by reviewing some of our new finds, and I have chosen accordingly, the present status of the investigation into the subject of internal secretions.

The term itself, internal secretions, is new enough to have been unintelligible to many medical men but a short time ago. Everybody thought he knew what a secreting gland was, for, whether it was very large or very small, a special fluid flowed from it which could be collected and examined. There was little thought, therefore, about an important class of glands, whose secretions could not be collected or examined, but whose specific properties could only be inferred after mincing up the glands themselves, or making extracts from them as we would from so much Peruvian bark. Nor would any one have thought of doing that, but for the discovery that when some of these glands were damaged or destroyed by disease, certain quite specific and often fatal derangements followed. This, in turn, led to numerous experiments of removing the corresponding glands from animals, and then watching the effects. These researches have been surpassed by none in the history of experimental medicine for extent and thoroughness, with the result that many well demonstrated facts already have been reported from our laboratories; facts which hereafter cannot be ignored, but must be taken into account by all physicians. Nevertheless, the recurring experience attending all new discoveries in medicine is particularly the case now, that, instead of these discoveries coming to us in the shape of complete statements, they are more like elaborate puzzles, the full meaning of which we are still to solve. It is rather trying, when one receives what he has reason to believe is real information, to know also that this information is as yet only partial, with much more to come. But true progress in medicine always resembles the process of growth, and growth cannot be hurried. Hence, what we would emphasize at the outset about our subject, is that from the nature of the case, we must be content for the present with more expectancy than certainty with reference to anything which goes by the name of an internal secretion.

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* Anniversary Address of the New York Academy of Medicine, Nov. 3, 1904.

That such should be our mental attitude on this subject will occur to any one on reflecting how obscure is the mechanism of secretion in general. Every recent advance in physiology has been in the direction of discrediting all facile mechanical hypotheses of the processes of secretion in the case of any gland. This is equally true of those glands which discharge their secretions abundantly from ducts, and whose products, therefore, we can examine by every method, as to their physical, chemical, or microscopical characteristics. How far are these secretions from revealing all which we would like to know about the glands themselves from which they come!

Take the urine, the readiest and oftenest examined of all secretions. There is no common agreement among physiologists about the mechanism of the secretion by the kidney of a single element of the urine. There is no agreement whether the water itself comes from the kidney by simple filtration, or according to certain laws of osmosis, or by a specific, secretory activity. Owing to the polyuria of a shrunken, cirrhosed kidney, we are not certain whether more than a part of the water separated by the sound kidney from the blood ever reaches the ureters, while the most of it is reabsorbed instead. One would suppose that the secretion of the different mineral ingredients, which are normally present as salts in the urine, could be easily explained, but the most painstaking investigators about the best known of all salts, the sodium chloride, are not agreed how it gets into the urine, when confronted with the question why it does not in pneumonia or in typhoid fever. Then the primary question, what the kidney has to do with urea, becomes uncertain enough, after the most perplexing of all reports, namely, that when three fourths of the kidneys are experimentally cut out of healthy dogs, the remaining fourth of kidney substance then secretes more urine and much more urea than sound kidneys do, until the animals die, as it were, from a general breaking down of their proteid tissues into urea. Moreover, when from physiological we turn to pathological conditions of the urine and of the kidneys, to get insight into the office and workings of these glands, we are worse off in the number of unsolved problems than ever. Thus, what is uræmia? Whatever it is, it is not due to simple suppression of the functions of the kidneys, for such suppression occurs in its completest form when an impacted calculus in the ureter has destroyed one kidney, and then, some years afterwards, the ureter of the remaining kidney becomes similarly plugged, so that not a drop of urine reaches the bladder. Eight or ten days thereafter the patient dies without having shown a single symptom of ordinary uræmia from first to last. Then, why do some forms of kidney disease run a long course to death without a sign of dropsy at any time, while others are accompanied by universal anasarca? Now, considering that not a single satisfactory explanation of the cause and mechanism of renal dropsy has yet been given, how can we expect that the functions of the thyreoid gland, for example, can be guessed from the conditions of myxœdema, with its swollen tissues soaked with mucus?

In other words, secretions, no matter in what amount nor however easily procured, have but little to tell about the vital processes themselves to which they owe their origin. If this be so with such things as the urine, which we can obtain by the quart, how much can we expect of secretions not a drop of which (in their natural state) can we separate from their glands, nor detect in the blood by any means yet devised?

I have made these preliminary observations in order to indicate the necessary limitations prescribed by the imperfections of our knowledge to our discussion of the problems which this new department of medicine suggests. I do this because already a variety of fanciful hypotheses have been propounded about the rôle of the so called ductless glands, both in health and in disease, which if at all true, make one wonder how mankind has so long survived in its ignorance of these deeply hidden bodies.

Our proper course, therefore, is first to find out what are the facts which so far have been demonstrated about each one of the organs which are reported to charge the blood with an internal secretion, and then to draw conclusions as nearly as we can in consonance with the facts only.

To begin with, it is obvious that we must first be sure that an organ which is reported, by virtue of its being a ductless gland, to discharge an internal secretion into the blood does any such thing, or, in fact, is a secreting gland at all.

Thus the spleen is counted among the ductless glands; its large size, many times that of both adrenals, its abundant vascular supply, and its constant presence in all vertebrates, would seem to imply that it was an important organ. But size is no more synonymous with importance in the body than in other connections, for every animal experimented upon, including man himself, seems to be able to get along very well without the spleen after it has been altogether removed. No extracts made out of its substance show properties of any special kind. But anything which is not missed when absent, cannot be of much account when present, so that after all the surmise of the old anatomist does not seem so unnatural; that the chief business of the spleen is to fill up a hole under the left arch of the diaphragm. The best we can say of this organ, which in fact has no proper gland tissue in it, is that it may serve as a sort of diverticulum in the course of the portal circulation.

In the second place, we ought to make a distinction in this class of glands between those which are temporary and those which are permanent in their presence, and, therefore, in their functions, in the body. The temporary glands may discharge necessary functions at certain times of life, but if sooner or later they go out of commission, so to speak, and waste away, it is natural to infer that the conditions of life coincident with their functional activity will afford the most probable indications why they are needed.

The first of these temporary glands which we would refer to, is the thymus.

Physiologically, this gland seems to be intimately associated with the origin of the white corpuscles of the blood. Personally, I am inclined to regard the different forms of leucocytes found in the blood in adult life not as generically distinct from one another, but as different stages in the development of the same class of cells. However various their functions may be, there can be no doubt that they play an important part in all changes taking place in systemic nutrition. We are apt to regard growth as so much addition to the growing tissues, but all processes of the kind consist as much apparently of removal and replacement as of addition. Thus the tail of the tadpole neither drops off nor is sloughed off in the development of the growing frog, but as the time of change approaches, the tissues of the tail are crowded with leucocytes which carry the components of the tail, bit by bit, back into the circulation till nothing of it is left. When we consider how great the changes throughout the whole body are in a young growing animal before it reaches maturity, we can readily infer that those changes are regulated by special mechanisms which may not be needed as the more permanent stages of growth are reached. With reference to the leucocytes, it is evident that as development proceeds, adenoid tissues in which they can be formed so increase throughout the body that the thymus seems to become superfluous as the chief seat of their generation, and gradually wastes away.

Nevertheless, the most recent investigations seem to show that during the period of its functional activity the relation of the thymus to the body is an important one. Professor John Rurah, of Baltimore, reports eighteen necropsies of infants, who died from so called marasmus, in none of whom could the morbid condition be ascribed to improper food or to gastrointestinal disease, nor as secondary to any infection like tuberculosis or syphilis. Instead, the only lesion found, after the most careful inspections, was great atrophy of the thymus. This gland when normal weighs about 12 grammes at birth, and its meshes are then filled with lymphoid cells, also a few neutrophilic and eosinophilic leucocytes and a few giant cells. In these 18 cases, instead of 12 grammes, the average weight was only 2.2 grammes, while the gland tissue of both cortex and medulla was wholly wasted. From these studies, Dr. Rurah draws these conclusions:

1. Atrophy of the thymus gland is always found in cases of infantile atrophy.
2. The condition of the thymus is an index of the general nutrition of the infant.
3. The state of nutrition in infants may be estimated by a microscopical examination of the thymus at the necropsy.

On the other hand, much the commonest pathological condition with which the thymus is found associated is the apparent opposite of atrophy, namely, marked hypertrophy, with prolonged persistence, instead of the normal diminution in bulk as age progresses. The chief clinical accompaniment of this state is sudden and unexpected death. The cause of this sudden death in children, and sometimes even in young adults, where necropsy reveals what is called persistent thymus, has been much disputed. That a few cases can rightly be attributed to pressure of the enlarged gland upon important structures in its neighborhood is undoubtedly true, but this cause cannot be predicated of the great majority of such instances. Instead, the best established observations point to the death as proceeding from the heart, as in some cases of chloroform death, the heart stopping before respiration ceases. How this comes about is wholly obscure, but one concomitant of so called persistent thymus is at least suggestive, namely, a general increase of lymphoid tissue throughout the body. Paltauf calls this condition a status lymphaticus, and Escherich maintains that thymus enlargement is but one evidence of a certain disordered constitutional state of what he terms a lymphatic, chlorotic nature.

For my part, I would correlate this condition with a general law, namely, that undue proliferation of cells is always a sign, not of increased, but of deficient vitality. Enlarged tonsils, masses of adenoids in pharynx and nares, and other common accompaniments of the lymphatic constitution are indices of true constitutional debility, one effect of which is lowered resistance to infections. I may state here that I believe we have in cod liver oil the best cell nutrient in such conditions, one indication of which is that children so affected generally take it with relish, which is a constant surprise to their parents.

The next organ to which we would refer is the thyreoid gland, and it is important to note at the outset that it also, like the thymus, should be classed with the temporary glands, for though its functional activity lasts much longer, and like that of the thymus is very important while it lasts, yet it cannot in duration compare with the adrenals, for example, whose function is continuous throughout life. The diseased condition, myxœdema, which has been induced artificially in man by surgical extirpation of this gland, as well as experimentally in monkeys, is also an unmistakable result of atrophy of the gland itself by disease. When, in addition to these facts, myxœdema itself can be held in abeyance by the administration of thyreoid extracts, we have a complete circle of evidence that the thyreoid adds an internal secretion to the blood which serves a most important office in general nutrition.

It was Kocher who, after the most extensive experience of any surgeon in operative removal of the thyreoid, first pointed out that postoperative myxœdema scarcely occurs at all in elderly people. Bourneville and Brecon put the limit of liability to postoperative myxœdema as early as the thirtieth year. I regard this, however, as too early, for I myself have had a patient develop this disease in her forty-sixth year. Hale White and others, however, have shown that as age advances the thyreoid degenerates, just as the thymus does in early life, so that in old subjects the normal glandular structure can with difficulty be recognized. Old dogs also bear thyreoidectomy remarkably well compared with its rapidly fatal effects in young dogs. Whatever may be the explanation of these facts, they show at least that in time the functions of this gland cease to be essential to life.

As so many different affections, notably Graves's disease, have been ascribed to derangements of the thyreoid gland, it becomes a question of primary importance to determine, first, what its normal or physiological functions are. It may be said that no organ of the body had been the subject of so much investigation as the thyreoid gland, until after years of experimentation on animals of the effects of depriving the system of its secretion by excision of this gland, it was inferred that in carnivora this operation was rapidly fatal, in omnivora less so, while in herbivora scarcely any effects followed. Thus, in dogs it was soon followed by general tremor and rapid breathing, then by tetanic spasms and fatal convulsions. Horsley found that monkeys survive the removal of the thyreoid much longer than dogs, and if kept warm they develop a condition similar to myxœdema in men. But the herbivora seemed to get along quite well without the thyreoid, as other animals do without the spleen. Therefore, one important deduction from these facts seemed to be that the habitual diet of the animal decided whether the gland was necessary to life or not.

But more recently the whole subject has been given quite another turn, which illustrates again how cautiously we must draw conclusions about internal secretions. Certain small bodies, called the parathyreoids, are found closely associated with the thyreoid, but for a long time they were neglected by investigators as only minor and unimportant accessories of the larger body. In some animals they are imbedded in the thyreoid itself, somewhat like the islands of Langerhans in the pancreas, so that they are removed along with the thyreoid when it is excised. It now turns out that it is this fact which led to erroneous interpretations of the symptoms following thyreoidectomy. Because in other animals the parathyreoids are quite separate or separable from the thyreoids, and as this is the case in rabbits, Gley was able to explain why thyreoidectomy seemed to have so little effect on these herbivora, because on removing the parathyreoids alone in them and leaving the thyreoid intact, the full train of spasms, tetany, convulsions, etc., developed in them just as they do in carnivora after thyreoidectomy. Gley was first inclined to regard the parathyreoids as capable of compensating for the thyreoid tissue when this is removed, but this view is now generally abandoned, and, as MacCallum states: " There is no histological proof that parathyreoid tissue can ever become converted into thyreoid tissue, and there is now a general agreement of opinion that these glands are organs of very different nature." This discovery has led to extensive experiments on the functions of the parathyreoids in carnivora also, with the result that if they are dissected out of the thyreoid in which they are embedded, and the thyreoid is left otherwise intact, the tremors, convulsions, etc., at once follow; while, conversely, no such symptoms develop if the thyreoid is excised while the parathyreoids are left. This demonstration as regards the parathyreoids brings us to one inference at least which we have not yet found clearly indicated about the rôle of internal secretions, namely, that some of them may have an antitoxic function, by which poisons generated in the body itself are neutralized. That there is a virulent poison which acts upon the nervous system, and which accumulates in the blood when the parathyreoids are removed, and which does not act in health because of an antidote in the parathyreoid cells, or by their secretion, is shown by the fact that in dogs from whom the parathyreoids have been removed, the fatal tetany, rapid breathing, convulsions, etc., are immediately ameliorated by bleeding the animal freely and injecting an equivalent amount of normal saline solution. The poison then accumulates for twenty-four hours, and the tetany, etc., return, to be again relieved by the same procedures, showing that they wash the poison out. Where this poison actually comes from has not yet been decisively settled, but in favor of its origin from food digestion in the gastrointestinal tract are the reports of Verstraeten and Vanderlinden, that the tetany is less violent and appears later when the dogs are kept on milk than when given a pure meat diet. MacCallum fed a parathyreoidectomized dog exclusively on bread and water after the operation, and in this case no tetany developed within the twenty days that the dog lived.

Meanwhile, these discoveries about the function of the parathyreoids have created the greatest confusion in regard to one of the most widely promulgated theories about the pathology of Graves's disease, namely, that this disease is caused by the hypertrophied thyreoid charging the blood with a great excess of its own secretion. The question now is, how many of the characteristic symptoms of Graves's disease are due to superabundance of thyreoid secretion, and how many of them are due rather to atrophy of the parathyreoids, because whole lists of Graves's symptoms, such as tachycardia, breathlessness, and general tremors, are the results of extirpation of the parathyreoids. In one case of fatal Graves's disease at the Johns Hopkins Hospital, MacCallum reports that no trace of parathyreoïd tissue could be found at the necropsy. In eight other cases, where one lobe of the thyreoid had been removed by operation, in two no definite change could be made out, except diminution in size; while in two, distinct degenerative changes in the parenchyma cells were found; and the parathyreoids were distinctly smaller than normal in all the eight.

The theory, however, that Graves's disease is caused by an excess of thyreoid secretion is rendered very doubtful by a number of other considerations. In the first place, the thyreoid is liable to great hypertrophy in the common affection called parenchymatous goître, in which its cells are found stuffed with its secretory products, and yet without being accompanied by a single one of the long array of the constitutional symptoms of Graves's disease. A more purely local affection than parenchymatous goître it would be difficult to name, while in Graves's disease nearly every function of life is involved. But when we turn to facts relating to the ætiology of parenchymatous goître, the divergence of this purely thyreoid affection from all relationship to Graves's disease becomes still plainer. Parenchymatous goître seems to have more connection with drinking water than with anything else, and hence is both endemic and epidemic. Instead of attacking ten women to one man, as in Graves's goître, it affects both sexes alike, or exclusively members of the male sex on account of their circumstances, as in the case of regiments in their barracks, or boys in a boarding school. St.-Leger relates that the youths in a certain township in France, in order to escape military service, drank copiously from a well noted for causing goître. Their thyreoid glands rapidly enlarged, so that by this means they escaped military service. Lombroso relates a similar instance in Lombardy, where the men made themselves goîtrous in fifteen days. The water from such goîtrous wells will cause also the thyreoids of horses and dogs to enlarge.

These facts show that the thyreoid is very susceptible to certain toxic agents circulating in the blood. The only natural inference, therefore, is that some toxic agent circulating in the blood is also responsible for the Graves's goitre, for such a thing as a gland's self excitation to hypersecretion is unknown to pathology, while it should be noted that there is no anatomical difference between a parenchymatous goître and a Graves's goître. But the most important fact of all is that not only does the severity of the illness in Graves's disease bear no relationship to the degree of development of the goître, but a large proportion of persons affected with Graves's disease never show any goître, or exophthalmos either from first to last, though the end may be death.

I have treated this subject fully in a recently published monograph, entitled *Graves's Disease, With and Without Exophthalmic Goître*, based upon the clinical histories of 42 patients with exophthalmic goître, compared with the histories of 28 patients without goître. All of these patients were seen by me, either in my own private practice or in consultation with their physicians. Two of the goîtrous patients died, and two also of those who never had any goître. That there can be no mistake in the diagnosis of Graves's disease without goître is due to the fact that there is no single known disease which has such a number of characteristic symptoms as Graves's disease, or symptoms grouped in such a specific fashion. I enumerate twenty-eight of them, exclusive of the goître and exophthalmos.

Not to pursue this subject further, therefore, I will only conclude with the statement that I regard the thyreoid as not the primary seat of this malady, but, instead, that this gland is only secondarily involved, as the spleen is in ague, that is, much enlarged by the blood toxine in some, moderately so in others, and not at all in the remainder. The toxine which causes all the symptoms of Graves's disease is of gastrointestinal origin; and, lastly, I maintain that the treatment of Graves's disease by diet and by gastrointestinal antiseptics is greatly superior in results to either symptomatic treatment or to any surgical procedures.

There remain, therefore, the problems, what are the derangements which can be definitely ascribed to either the thyreoid itself, or to its associated glands, the parathyreoids? When the thyreoid itself is excised and the parathyreoid left, a myxœdematous condition develops, with a characteristic cachexia, the very opposite in its symptoms to Graves's disease. When the parathyreoids are excised, and the thyreoid left, severe nervous symptoms develop very similar to those of Graves's disease, and which might be more completely so if the animals would live long enough after the operation. I am myself inclined to regard the internal secretion of the thyreoid as intimately related to the nutrition of the connective tissue, and that the general mucoid infiltration in myxœdema is due to a degenerative change in fibrous and connective textures. This raises the question whether thyreoid extract might not be beneficial in certain otherwise hopeless cases of gliomatous infiltration in nervous tissue. In Vol. XIV of the Transactions of the Association of American Physicians, Dr. S. Loving, of Columbus, Ohio, reports the case of a young man who for a number of months had such severe headaches, with progressive loss of vision, and with such ophthalmoscopic indications that four physicians besides Dr. Loving concurred in the diagnosis of an intracranial growth. He was treated most thoroughly with iodides and mercurials, but grew steadily worse, when thyreoid extract, beginning with doses of three grains, before each meal, afterwards increased to six, seemed to cure him, and in four months and a half he was entirely relieved of headache with almost complete restoration of vision.

This leads us to allude very briefly to the subject of organotherapy, which may be said to have received its chief impetus from the discovery of the beneficial effects of thyreoid extract in myxœdema and in cretinism. Since then thyreoid extract has been prescribed for a long list of ailments, from skin disease to insanity. But, as with many other reputed remedies, especially new ones, the final verdict must be waited for with patience. Under full doses of the extract, the bodily weight is generally diminished, and hence it has some repute for the reduction of obesity. Unfortunately, it often seems to cause more loss of weight in persons who are not too fat than in those who are.

The pituitary gland, or body, is a diminutive structure which reposes in the narrow fossa of the sphenoid bone called the sella turcica. From this small beginning, such changes in the whole body as are illustrated by the following case, published by Professor O. T. Osborn, of Yale (Vol. XII), have been ascribed to its morbid activity. A man of ordinary size and weight at twenty-four years of age began to grow, as it were, into a giant, so that when he died twenty-three years later he weighed at least 300 pounds. At the necropsy his heart was enormous, being 15 inches in circumference at the base, and weighing two pounds and nine ounces. He had neither vascular nor valvular disease which would account for this hypertrophy. The liver was enormously enlarged, weighing seven pounds and two ounces. The spleen weighed two pounds and four ounces. The cartilages of both external ears in several places had become bone. It was in the bony skeleton, however, that the most extreme alterations were found, for besides other changes in the cranial bones there were large superior and inferior maxillary bones, enormous clavicles, enlarged sternum and ribs, great cyphosis of the spine, both carpus and tarsus enlarged, and the end phalanges of the feet showed peculiar bone growth. The pituitary gland in his case was enlarged into a cyst, but the nature of its contents was undetermined.

(To be concluded.)

Original Communications.

NEPHROTOMY AND URETEROTOMY FOR IMPACTED URETERAL CALCULUS.*

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Cystoscopy, catheterization of the ureters, with the wax tip catheter for the female, analysis of the separately collected specimens of urine, and radiography, have increased the possibilities of establishing the definite diagnosis of the presence of a renal or ureteral calculus to such an extent that the surgeon nowadays generally attacks these cases, not in an exploratory manner, but with the full expectation of finding the stone, the presence and location of which he has been able to determine beforehand. However, that this satisfactory condition of affairs does not exist in every case, we all know. The obesity of a patient, the penetrability of the calculus by the x rays, lack of proper experience and dexterity of the radiographist, deceiving shadows in the negative, etc., are factors, any one of which may mar the result of this preliminary examination, and hence render uncertain or even impossible the diagnosis by means of the rays. On the other hand, cystoscopy and catheterization of the ureters alone, without the aid of the rays, cannot always be absolutely relied upon to establish the diagnosis of calculus in the upper urinary tract, especially in the male subject.

To show how at times also adverse circumstances may interfere with our endeavors to make use of the modern diagnostic means, I should like to relate the history of a patient who came under my observation some time ago:

Mrs. X., twenty-nine years of age, had had repeated attacks of pain in the left loin during the last fifteen years. I first saw her on September 21, 1902, in consultation with her family physician, Dr. Albert Kohn, of this city, during an attack of acute pyelonephritis, on the left side. She had been very sick for six days, but felt considerably better at the time I was called. All symptoms subsiding, it was decided to wait a few days and then have a radiograph taken and do additional catheterization of the ureters, if necessary. Before this plan could be carried out, she developed another severe attack of inflammation of the left kidney, necessitating her prompt removal to the hospital. It was more than a week before normal conditions were reached; during this time her symptoms were not sufficiently grave to make prompt operative intervention imperative. Vaginal examination, made with the view of palpating the lower portion of the ureter, proved negative. Just as all was ready for the contemplated work, another acute and most severe attack of inflammation came on, this time demanding immediate operation, which was done at the German Hospital, on October 3rd. A posterior, longitudinal incision was made. The kidney, which could be brought in front of the wound only after resection of the twelfth rib, was of a deep bluish red color, much swollen and extremely brittle; scattered all over its surface were numerous minute miliary abscesses. Bacteriological examination made of the contents of one of these abscesses showed the colon bacillus in pure culture. It surely seemed best for the patient, at that moment, to remove the kidney. But cystoscopy had not been done and the condition and working power of the opposite kidney had not been ascertained. Radical interference, therefore, was out of the question. Under compression of the renal vessels by the fingers of the first assistant, an incision, one inch long, was made in the middle third of the convexity of the organ, somewhat posteriorly to the highest line of the curve,[1] with the idea of striking the normal anatomical division of the anterior and posterior arterial system of the kidney. Through this incision the finger was gently pressed forward into the renal pelvis. No stone was encountered, a fact which had also been ascertained by careful palpation of the pelvis from without; nor did metal probes of various calibre, introduced into the ureter through the pelvis, strike one. Flexible bougies, however, gently pushed down, met an obstruction about 6 to 8 inches below the upper entrance into the ureter. Sterilized boric water, injected through a small catheter with the end hole introduced into the ureter from above, returned in a gush. There surely was an obstruction to the normal downward flow, due either to the presence of a calculus or a stricture. The patient's condition, of course, forbade proceeding at once with a ureteral operation. Hence a drainage tube and a strip of sterile gauze were placed in the renal pelvis and the borders of the renal wound were stitched to the muscles on either side in the depth of the incision. The entire wound was left open and loosely packed. The patient made an uninterrupted, but slow recovery, regaining strength only in the course of weeks. A fistula, through which the greater part of the urine was discharged, persisted in the middle of the scar. The facilities at the hospital for taking an x ray photograph being temporarily disturbed at that time, it was decided first to catheterize the ureters. This was done on November 25th. Not knowing whether a stricture or a stone would be found, a Kelly's metal ureteral catheter of the smallest size was employed. Under local anæsthesia, with the patient in the knee chest posture, this was introduced on the left side. Three to four inches up a resistance was encountered which, however, could be overcome by gentle pressure. Withdrawing the mandrel of the catheter, 17 cc. of bloody urine ran off in a continuous current. It was clear that this quantity of urine had been pent up in the upper part of the urinary tract. Then the upper portion of the ureter and renal pelvis were washed out with sterile boric acid solution, until the water returned clear. There was no pain. The patient had been turned upon her back during this procedure. At last a larger amount of water was injected and the catheter slowly withdrawn when the flow suddenly ceased. Then, drawing out the catheter some six to eight millimetres further, the water started to flow again. On continuing to withdraw the instrument further still, the same phenomenon was observed at a place situated about one to two centimetres nearer the bladder, but was, however, of shorter duration than the first one. At no time was there any sensation of grating.

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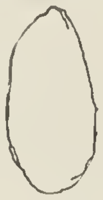
* Read before the annual meeting of the American Urological Association, Atlantic City.

[1] Hyrtl; Zondek (German Surg. Congress, 1899).



Impacted ureteral calculus, removed by extraperitoneal ureterotomy; natural size.

Conclusion.—Stricture present, not very high up, perhaps produced by one or more calculi, probably situated in lateral pouches. A wax tipped catheter, inserted immediately thereafter, showed a decided mark.

Diagnosis.—Impacted ureteral calculus. In order to make the diagnosis doubly sure, an x ray picture was taken. This showed two calculi in the pelvic part of the ureter, a short distance apart, the upper being somewhat larger than the lower one. Two days later the lower, smaller calculus was discharged per urethram; it had evidently become dislodged by the various instruments used. It was accidentally thrown away by the nurse. Vaginal examination now showed a hard, painful nodule on the left side, about three inches above the mouth of the ureter. In view of the former negative result of the vaginal examination, it had to be assumed that the upper stone also had become loosened and descended somewhat.

December 3, 1902.—Abdominal ureteral lithotomy was performed, the incision beginning three fingers' width above the umbilicospinous line, midway between McBurney's point and the anterior superior spine; the abdominal wall was incised layer by layer; some properitonæal fat was found; the peritonæum was easily peeled off; entrance to the pelvis was difficult; therefore, a lengthening of the incision downward and inward (hockey stick) was made. The sheath of the rectus was opened, but the muscle was not incised. Double ligation of epigastric plexus was made. Access to the small pelvis was now easy. The ureter was attached to the peritonæum in the upper portion of wound, and was well defined, but not loosened. On pulling it upward, its direction down into the pelvis was well demonstrable. With the patient in a pronounced Trendelenburg's posture, a hard, small mass was palpable, corresponding exactly to the place where the uterine artery crosses the ureter. It could be pushed neither upward nor downward. Therefore, double ligation and division of the uterine artery were performed, and, with the finger placed below the ureter, lifting it slightly, incision of the latter was made. A rough calculus, the size of a large bean, was then easily removed (see figure). The ureteral mucous membrane was much thickned. A probe was thereupon introduced and pushed toward the bladder, and did not meet any resistance; flexible bougies of large dimensions easily passed the ureteral orifice. The ureter appeared to be dilated for from 3 to 4 inches upward, from which fact the inference might be drawn that the descent of the stones took place within the last few weeks only. The ureteral wound was closed by six interrupted catgut sutures, without catching the mucous membrane; a gutter drainage and small aseptic gauze tampon were placed in the small pelvis (the tampon covering the ureteral wound), both finding a common point of exit at the lower angle of the hockey stick incision; then careful layer suture was made of the entire abdominal wound. The patient stood the operation exceedingly well. The lumbar fistula closed soon afterward.

It may be of interest to state that, on May 6, 1903, the patient again had to undergo an operation; this time for right pyosalpinx and perforated ovarian abscess. She made a rapid recovery.[2]

The foregoing case shows what an amount of usually unnecessary work may have to be done in these cases, if conditions arise that render the establishment of a strict diagnosis impossible with the assistance of our present means. It also shows into how serious a condition a patient may be thrown by a colon bacillus infection of the upper renal tract, if normal urinary drainage is interfered with.

In the course of the last year it has been my lot to come across two patients who died from acute sepsis due to ureteral obstruction by stone. The one, a gentleman, sixty-two years of age, had been successfully operated upon by me for prostatic enlargement, by means of perineal prostatectomy. Shortly before the operation sudden retention, for the first time, had set in, with unmistakable symptoms of right renal colic. A slight second attack occurred during convalescence from the operation. However, he had entirely recovered; there was no residual urine and he was on the point of going west, seven months after the operation when he was suddenly stricken, while riding in a car, with a severe chill and intense abdominal pain, vomiting, and other symptoms which could well have been construed as being signs of an attack of acute appendicitis. But, mindful of the former attacks, the diagnosis of acute pyelonephritis, due to a calculus, was made. During the next twelve hours another chill set in, followed by such immediately profound prostration, that the operation, at once performed, could not save him. The pelvis of the kidney, when incised, clearly demonstrated a much swollen mucous membrane, with an area of pressure necrosis evidently caused by a stone having been held there for some time before its downward passage. A bougie introduced into the ureter from above, encountered an insurmountable obstruction at a place which corresponds to the lowest portion of the ureter.

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[2] An examination made of her urine on October 17, 1904, by Dr. Kohn showed the same to be absolutely clear and normal.

The other case was that of a man who had had attacks of renal colic for years. When seen by me in consultation, anuria had been present for more than twenty-four hours, accompanied by such severe symptoms of sepsis that the patient succumbed before operation could be done.

Such cases show how dangerous and treacherous a foe a renal calculus may prove at times.

I, therefore, think that the customary treatment of this trouble, which belongs to internal medicine as well as surgery, should be revised. In view of modern asepsis, I consider it advisable, in all cases where profound septic symptoms, especially a chill and rapid pulse, accompany the always present renal colic, promptly to resort to operative treatment.

In the presence of subsiding symptoms we should strongly urge removal of the stone or stones during the interval.

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PRIMARY NASAL DIPHTHERIA; A PLEA FOR ITS EARLY RECOGNITION AND A REPORT OF THREE CASES.*

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(*Concluded from page 929.*)

Now as to the actual treatment of nasal diphtheria. In the first place the case should be isolated. The treatment in itself is very simple; the nose should be douched with a mild antiseptic or a weak solution of peroxide of hydrogen. The use of atropine has been recommended by some (36), for its inhibiting effect upon the growth of the false membrane. The bowels and general condition should be looked after, and antitoxine injected. Some are of the opinion that, as long as we have no systemic symptoms showing that no toxines have been absorbed, there is no indication for the use of antitoxine. But it seems to me, that taking in consideration even the slight possibility of this limited infection spreading, or of the still rarer possibility of it becoming of a toxic nature, antitoxine should be used, if not with the idea of mitigating the symptoms, then to prepare and fortify the system against their possible occurrence; that is to say, to immunize the patient. A person who only has a mild nasal diphtheria is entitled, to say the least, to as much preventive treatment as one who has only been exposed to the infection. One should remember that the bacilli often persist in the nose for a long while after the membrane and even the discharge have disappeared; therefore, the patient should be kept isolated until the culture is negative. The more severe cases call, of course, for more energetic treatment; but we will not discuss them, as it is outside of the scope of this paper.

Nasal Diphtheria in Early Infancy.—Nasal diphtheria in young infants is not very uncommon. It runs a different course, but as in older children it is insidious, and usually occurs in connection with some other disease, mostly with hereditary syphilis.

The symptoms are abundant mucopurulent discharge, nasal obstruction, difficult breathing, spells of dyspnœa. The nursing is accomplished with great difficulty and the baby often refuses to take the breast at all. The child is very drowsy all the time and usually remains with its eyes closed, which, according to Raymond Glatard (4), is one of the constant symptoms. There is no elevation of temperature in the majority of cases. The baby grows weaker and weaker, repeated convulsions occur, and death is caused by asphyxia. There is usually a membrane, but it cannot always be demonstrated on account of the difficulty of examination of the nasal cavities in infants. It is sometimes situated, as the autopsies have proven in some of the cases reported, higher up, or in the sinuses, or occasionally is absent altogether. These cases are often taken for hereditary syphilis or for ordinary coryza, and, in cases where the infection has spread to the eyes, for gonorrhœa. Dr. Newman (37) reports a case where an infant three weeks old had a nasal discharge, but seemed well otherwise; in a few days the eyes became affected; repeated examinations for the gonococci were made and proved negative; but the Klebs-Löffler bacilli of a virulent nature were demonstrated. The child died about three weeks after the appearance of the coryza.

The treatment in these cases is very unsatisfactory as so many prove fatal. Antitoxine should be administered, the nose kept as clean as possible, and stimulants given. The main danger is from nasal obstruction, and Raymond Glatard suggests the use of cocaine to produce shrinking of the false membrane, but its effect as he admits, is only temporary and inefficient, and I think the use of it is quite dangerous in itself. Dr. Sampson (38) had introduced small rubber tubes into the nostrils so as to keep the nasal passage patent, but in his case the infection spread and the child died, so it is impossible to say whether in a purely nasal case this measure would have been of help.

REPORTS OF CASES.

CASE I.—Gladys T., ten years of age, had a marked nasal discharge for over three weeks, which was supposed to be due to a bad cold in the head. She was feeling very well every other way and was going to school. I first saw her accidentally when called to see her mother. The mother mentioned quite incidentally the annoying cold that her daughter had, and so I asked her to let me look at the girl. On examination I found an excoriation of one nostril, redness of the upper lip under it; within the nose a thin grayish looking membrane could be seen. The glands of the neck were not enlarged, the throat was clear, and there was no fever. As I had a tube with me, I took a culture from the nose, told the mother that I suspected diphtheria, and that the child should be kept away from the rest of the children. The mother, though a very intelligent woman otherwise, resented my diagnosis, and told me that she had had occasion to see children with nasal diphtheria and knew what a serious disease that was, and that her little girl was really not sick at all, but only had a bad cold. The culture showed the presence of diphtheria bacilli. No antitoxine was used, as the parents begged me not; Dobell's solution for the nose and throat, and a tonic were ordered, and the patient was isolated. She kept on feeling well, and within a week the membrane disappeared and, in another week the culture taken was declared negative. How many children in school contracted the disease from her is not known, but one little girl who called on her before the real nature of the affection was known, developed laryngeal diphtheria, had to be intubated and came very near death's door.

CASE II.—Ethel W., five years old, had a cold and a sore nose for about two weeks, but little attention was paid to it, as she was rather subject to colds. In the beginning of the third week she was taken with a convulsion and I was sent for. As the convulsion only lasted but a few minutes, it was over when I arrived. The mother told me about the bad cold and said that the child seemed pretty well otherwise, only that she was constipated and that this probably was the cause of the convulsion. This child used to have convulsions when a baby. Upon examination I found the child looking sick. Her pulse was 100, and there was a thin watery discharge from one nostril, which was also studded along the edge with small crusts. The lip under it was sore. A thin membrane could be seen within the nose. In the throat, there was a grayish looking membrane on the upper posterior part of the pharynx. The rest of the pharynx and tonsils were normal. The glands were enlarged, the chest and abdomen normal. The temperature was 103°. A diagnosis of nasal diphtheria spreading downward was made, antitoxine administered, and nasal douches, a laxative, and an iron mixture prescribed. The result of the culture, as received next day, confirmed the diagnosis. The child began to improve slowly, and the membrane did not spread; within the next ten days it all disappeared, and the general condition gradually became good, the pulse and temperature came down to about normal towards the beginning of the third week, and she was allowed to get out of bed for a while every day. I also discontinued visiting her daily, but one day at the end of the third week I was sent for, as the child's hands had became swollen. On examination I found the pulse 120, the temperature 99.5°, the heart regular, the nose and throat clear, and only the hands were swollen. The child was put back to bed, and a laxative and diuretic ordered, as nephritis was suspected. The examination of the urine however, proved negative, neither albumin nor casts being found. On the next morning the examination revealed a very rapid pulse, irregular both in rhythm and force, showing that the muscles of the heart were perhaps threatened with paralysis. The swelling had not extended. Absolute rest and heart stimulants were ordered. Within a few days the pulse became stronger, but remained irregular for about three weeks. The bacilli remained in the nasal cavity for two weeks more, making it altogether seven weeks.

CASE III.—Mathews D., eight years old, was always having trouble with his nose and throat, had frequent colds, snored at night, had obstructed nasal breathing, necessitating his keeping the mouth open when asleep or awake. His mother was told he had adenoids and should have them removed, but she could not make up her mind to have it done. This time he had been suffering for over a week from an exceptionally bad cold, his nose was swollen and badly stopped up, and the discharge very profuse, but he felt well otherwise, kept on with his school, while nothing was done. On the tenth day he began to feel and look sick and, towards the evening, complained of a sore throat. I saw him on the next day. On examination, I found his nose filled with a thick, white membrane on both sides; small crusts around both nostrils, the upper lip red, the submaxillary glands badly swollen and tender on both sides. The throat was filled with a thick, greenish membrane to such an extent that neither the normal outline of the arch of the soft palate nor of the anterior faucial pillars could be made out, nor could the posterior pharyngeal wall be seen. There was one continuous, thick membrane lining the throat. The pulse was very slow—75—the temperature 99.5°, and the patient looked very sick and dejected. The diagnosis of nasal diphtheria, rapidly extending downwards, was made, antitoxine was administered, and frequent douches and sprays of peroxide of hydrogen, an iron mixture, and stimulants were ordered. The result of the culture confirmed the diagnosis next morning. For the next twenty-four hours, the symptoms remained the same; the membrane also remained stationary. After this the membrane began to disappear, the pulse became more rapid, the temperature went up to 103°, but the general condition was better. The membrane disappeared within a week, and the temperature came down gradually in that time. There were a few slight nasal hæmorrhages. The bacilli remained in the nose for about three weeks after they were first discovered.

It is interesting to note that, as soon as he felt better, his speech did not have any longer the nasal sound which it formerly had, and his sleep also became very quiet, as he did not snore any more. Whether the acute inflammation will bring about a permanent cure of the hypertrophied lymphoid tissue of the nasopharynx, so called adenoids, as an acute outbreak will sometimes cure an old, persistent eczema, remains to be seen.

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LONG AND SHORT METHODS OF CALCULATING MODIFIED MILKS.

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LONG METHOD.

The following are the elementary calculations for formulating modified milk mixtures; from these numerous tables and methods have sprung:

Fat.—The number of ounces of cream to be added to a mixture to make a prescribed fat percentage, is dependent upon the percentage of fat in the cream used. In a 20 ounce mixture, for example, if the whole 20 ounces were composed of cream, there would be a fat percentage equivalent to the per cent. of fat in the cream used. Therefore, to find the number of ounces of a given per cent. cream necessary to make a prescribed percentage of fat in a mixture, it is necessary to find how many ounces of the cream are necessary to be diluted to the whole amount of the mixture.

The per cent. of fat in the cream used is to the prescribed fat percentage as the number of ounces of the whole mixture is to the number of ounces of cream necessary to make a prescribed fat percentage in the mixture.

X = Number of ounces of a given cream necessary to make a prescribed percentage of fat in the mixture.

Y = Whole number of ounces of liquid in mixture.

M = Percentage of fat in cream used.

N = Percentage of prescribed fat.

The following proportion, for any number of ounces of a mixture and for any percentage of cream used, will give the exact number of ounces of cream to be added in a mixture to make a prescribed percentage of fat:

M : N : : Y : X.

Making, for example, a 16 ounce mixture and using a 16 per cent. cream, we wish to prescribe 2 per cent. fat for a child. We therefore have three of the proportions, and all that is necessary is to find the unknown fourth.

M N Y
16 : 2 : : 16 : X.

X = 2 ounces of 16 per cent. cream, diluted to 16 ounces will give 2 per cent. fat in the 16 ounce mixture.

The following rule will give exact results for any volume mixture and any per cent. cream used:

Rule I.—Multiply the whole number of ounces in mixture by a fraction, the numerator of which is the prescribed percentage of fat, and the denominator of which is the percentage of fat in the cream used. The result is the amount of cream (in ounces) to be added to make prescribed percentage of fat in mixture.

Proteids.—The number of ounces of milk to be added to a mixture, to make a prescribed percentage of proteids, is dependent upon the percentage of proteids in the added milk. For example, in a 20 ounce mixture, if the whole 20 ounces were composed of milk, it would give a proteid percentage equivalent to the amount of proteids in the milk used. Therefore, to find the number of ounces of milk necessary to make a prescribed percentage of proteids in the mixture, it is necessary to find how many ounces of milk of a known proteid percentage are necessary to be diluted to the whole amount of mixture.

X = Number of ounces of milk necessary to make a prescribed percentage of proteids in mixture.
Y = Whole number of ounces of liquid in mixture.
M = Percentage of proteids in milk used.
N = Percentage of prescribed proteids.

The following proportion, for any number of ounces of a mixture and for any proteid percentage of milk used, will give the exact number of ounces of milk necessary to be added in a mixture to make the prescribed percentage of proteids.

M : N : : Y : X.

Making, for example, a 20 ounce mixture and using a milk containing 4 per cent. proteids, we wish to prescribe 1 per cent. proteids for the child. We therefore have three of the proportions, and all that is necessary is to find the unknown fourth.

M N Y
4 : 1 : : 20 : X.

X = 5 ounces of milk (cream and fat free milk) diluted to 20 ounces, will give 1 per cent. proteids in the 20 ounce mixture.

Rule II.—Multiply the whole amount of mixture by a fraction, the numerator of which is the prescribed percentage of proteids, and the denominator of which is the percentage of proteids in cow's milk. The result is the number of ounces of milk (cream and fat free milk) necessary in the mixture, to obtain the prescribed percentage of proteids. From this result subtract the number of ounces of cream used for the fat percentage; the remainder is the number of ounces of fat free milk to be added.

Note.—The cream contains almost as high a percentage of proteids as the milk, and for all practical purposes is considered the same. The fat free milk increases the proteids to the prescribed percentage; the ounces of cream used, for the fat in the mixture, made a certain percentage of proteids; the additional proteids are obtained by the addition of fat free milk, because if a milk containing fat were used, the percentage of fat in mixture would be increased.

Sugar.—The cream and fat free milk, necessary to make the prescribed fat and proteid percentage, contain a certain amount of sugar. This amount has to be calculated, the difference between this and the prescribed percentage of sugar has to be made up by the addition of milk sugar.

The number of ounces in the whole mixture is to the sum of the ounces of added cream and milk as the percentage of sugar in cow's milk is to the percentage of sugar derived from the added cream and milk in the mixture.

X = Percentage of sugar in mixture due to added cream and milk.
Y = Percentage of sugar in cow's milk.
M = Number of ounces of liquid in whole mixture.
N = Number of ounces of added cream and milk.

The following proportion will give the exact percentage of sugar in the mixture from the added cream and milk.

M : N : : Y : X.

Making, for example, a 16 ounce mixture and prescribing: Fat, 2 per cent.; proteids, 1 per cent.; sugar, 6 per cent. We used, according to preceding rules, 4 ounces of milk and cream containing, say, 4 per cent. sugar. We have three known proportions, and all that is necessary to find the amount of sugar in the added cream and milk, is to find the unknown fourth.

M N Y
16 : 4 : : 4 : X.

X = 1 per cent. of sugar in a 16 ounce mixture due to added 4 ounces of cream and milk. We have prescribed 6 per cent. sugar and have 1 per cent. in the mixture from added cream and milk. The difference, 5 per cent., is the additional percentage of milk sugar to be added to the mixture to bring it up to the prescribed 6 per cent. of sugar. Five per cent. of 16 ounces gives: 16 × .05 = .8 ounce × 8 = 6.4 drachms of milk sugar to be added to the mixture to bring it up to the prescribed 6 per cent.

Rule III.—Multiply the percentage of sugar in cow's milk by a fraction, the numerator of which is the sum of the ounces of cream and fat free milk added (or the number of ounces found by Rule II), the denominator of which is the number of ounces of liquid in whole mixture. The result is the per cent. of sugar due to added cream and milk. The difference between this result and the prescribed percentage will give the per cent. of sugar still lacking in mixture.

The whole number of ounces of liquid in complete mixture, multiplied by this lacking percentage, gives the number of ounces of milk sugar to be added to the mixture to bring it up to the prescribed percentage.

The foregoing are elementary methods for calculating modified milk mixtures. From these numerous tables and systems have sprung some of the so called simplifying methods which have been presented to the profession, and which have only complicated matters. The general practitioner has stood aghast at the hieroglyphic equations and refused to be burdened with tables which must be consulted on every occasion; the movable pocket charts come under the same category as the tables. Furthermore, every intelligent physician wishes to know what he is doing when he calculates the proportions for a modified milk mixture.

I have shown in the first part of this paper how calculations are made by ordinary arithmetical processes. I propose to show an even more simple and shorter method than the one I advocated in a previous issue of this journal.[1] Quite a number of physicians who read that article, were pleased with its extreme simplicity, but they argued that it was almost impossible to get a 20 per cent. cream and many of their patients would not go to the trouble of acquiring a cream from ordinary milk. Furthermore, from carelessness on the part of the mother, there was danger of contaminating the milk. They asked for an equally simple method of calculating with a 16 per cent. gravity cream, which is easily procured from the better class of milk dealers.

SHORT METHOD.

Various estimates have been given, by different observers, of the percentage constituents of milk. The fat has a wide range, from 2.5 to 5.5 per cent., but as we use only cream of a known percentage, the variations are immaterial to us. The percentage of proteids is more constant, the average from the most reliable data being 3.3 per cent.[2] In richer milks the proteids are higher, many calculations being calculated on a 4 per cent. basis, and the following short cut is based on this amount. It really does not make much difference whether the calculations are made on a 3.5 or 4 per cent. basis, because the changes are made according to the progression of the child. Starting from a certain prescribed mixture, which is given to the child according to the judgment of the physician, a percentage increase or decrease is ordered as contingencies arise. The object of the feeding is to secure a steady gain in weight and a healthy muscular tone; the milk which is supplied from a herd will run a general average from day to day and the prescriptions are under the control of the physician who makes his formulas according to his judgment, increasing or decreasing with the results obtained. To make this point clear, let us suppose, for instance, that we are calculating with a milk which only really has 3.8 per cent. proteids, but we calculate as if it contained 4 per cent.; in making our changes in prescriptions, we change one way or the other until we get the desired effects and the proportions are changed, according to circumstances; if the proteids are in a little less quantity than the base on which we are calculating, we increase our prescribed percentage until the results we are after are obtained; favorable results being the end in view, regardless of the amounts of milk used. The percentage of sugar varies, but the general working basis of 4 per cent. is universally used. The amount of sugar derived from the milk and cream amounts to a small percentage. The major portion is supplied by the milk sugar.

Only gravity cream 16 per cent. and fat free milk (skimmed milk) are used in the following method, and can be obtained from the better class of milk dealers. Unless the physician is sure of his milk and cream, it would be better to have the mixture pasteurized and then placed on ice. After the cream is received, it should be poured three or four times from one jar into another, so as thoroughly to mix it. A four or eight ounce graduate is necessary for measuring. The calculations are for a 16 ounce mixture; for larger amounts increase the amounts proportionately.

Fat.—Rule IV.—The percentage of fat prescribed (used as a whole number) represents the number of ounces of 16 per cent. cream to be added to a 16 ounce mixture, in order to obtain the prescribed percentage of fat in the mixture.

Example.—If a 2 per cent. fat is prescribed, 2 ounces of 16 per cent. cream are added to the 16 ounce mixture; if the 3 per cent. fat is prescribed, 3 ounces of cream are taken, etc.

Proteids.—For every 4 ounces of milk (cream and fat free milk) diluted to 16 ounces, the percentage of proteids in the 16 ounce mixture is increased 1 per cent.

Rule V.—Multiplying by 4 the percentage of prescribed proteids (used as a whole number) gives the number of ounces of milk to be added to the 16 ounce mixture, in order to make a prescribed percentage of proteids. The number of ounces of cream already added is subtracted from this result, and the remainder is the number of ounces of fat free milk necessary to bring the mixture up to the prescribed percentage of proteids.

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[1] Issue of September 24, 1904.

[2] *Bulletin No. 28* (Revised edition), page 55. U. S. Department of Agriculture.

Example.—We wish to prescribe 2 per cent. fat and 1 per cent. proteids: $4 \times 1 = 4$ ounces of milk to be added to the 16 ounce mixture. The 2 per cent. fat required 2 ounces of 16 per cent. cream, $4 - 2 = 2$ ounces of fat free milk to be added in addition to the cream. Again, we wish to prescribe 2 per cent. fat and 0.5 per cent. proteids; $4 \times 0.5 = 2$ ounces of milk; the fat required 2 ounces of cream, $2 - 2 = 0$, therefore it is not necessary in this proportion to add any fat free milk.[3]

Note.—The proteid percentage is slightly less in the cream than in the lower milk, but the difference is so slight that the ultimate result is practically the same.

Sugar.—The calculation of both proteids and sugar is on a working hypothesis that milk contains 4 per cent. of each. Therefore, the number of ounces of milk used to make a prescribed proteid percentage contains the same percentage of sugar. By subtracting this percentage from the prescribed percentage of sugar, we obtain the per cent. of sugar lacking in mixture.

Rule VI.—Subtract the prescribed proteid percentage from the prescribed sugar percentage; multiply the result by 16; the product is the ounces of milk sugar to be added to mixture.

Example.—Fat, 2 per cent.; proteid, 1 per cent.; sugar, 6 per cent. $6 - 1 = 5$ per cent. (lacking sugar in mixture); $.05 \times 16 = .8$ ounce $\times 8 = 6.4$ drachms of milk sugar to be added. A heaping teaspoonful of milk sugar equals a drachm. The sugar should be poured from one spoon into another, so that it is not packed tightly.

Go over the following example with a paper and pencil and see how easy it is to work out. In a short time one will be able to calculate mentally without other aid.

Example.—Fat, 3 per cent.; proteids, 2 per cent.; sugar, 6 per cent.

Fat.—Requires 3 ounces of 16 per cent. cream.

Proteids.—Requires $4 \times 2 = 8$ ounces of milk; $8 - 3 = 5$ ounces of fat free milk.

Sugar.—Requires $6 - 2 = 4$ per cent. sugar lacking; $.04 \times 16 = .64$ ounce of milk sugar; $.64 \times 8 = 5.12$ drachms.

Directions for mother:

Cream	3 ounces.
Skim milk	5 ounces.
Lime water	1 ounce.
Milk sugar	5 heaping teaspoonfuls.
Boiled water	7 ounces (enough to make 16 ounces).

This original method can be proved to be correct by estimating with the long method given in the first part of the paper, which has been fully explained. This, my latest method, is a short cut in the empirical use of figures, and is absolutely correct in results, when calculated on the basis of milk containing 4 per cent. each of proteids and sugar. It is by far the easiest and most simple method yet advocated. Any physician, devoting a few minutes to its study, will find that this calculation for modifying milk mixtures is exceedingly easy.

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[3] When the proportion of prescribed fat to prescribed proteids is as 4 to 1, it is not necessary to add any fat free milk. The percentage of proteids in the whole mixture, derived from the added cream, equals the prescribed proteid per cent.

IDEAL TENT LIFE FOR CONSUMPTIVES.

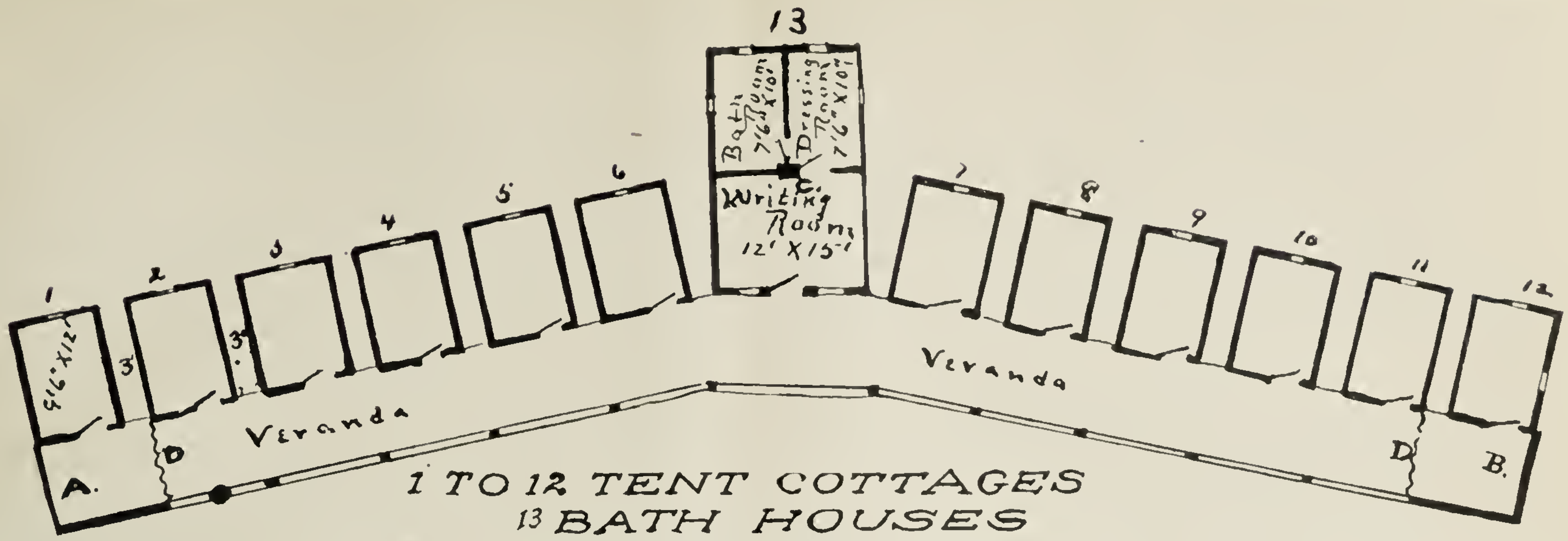
By H. BOYD MASTEN, M. D.,
CHICO SPRINGS, N. M.

The best conditions for curing incipient pulmonary tuberculosis are those under which tuberculosis is seldom or never contracted.

It had been observed long before Brehmer began his open air treatment of tuberculosis, that savage and nomadic tribes living throughout the year in tents or rude huts were almost entirely free from tuberculosis, and that this was especially true of tribes living at a considerable altitude and in a dry climate. Dr. F. A. Cook, who accompanied Peary's arctic expedition, found a considerable number of the Esquimaux of southern Greenland suffering from tuberculosis, but in the arctic highlands he found no cases of the disease.

Lartigau (*Twentieth Century Practice of Medicine*), in speaking of Mexico and Central America, says: "It is common on both the East and West coast and Mexico, in the sea coast towns of Yucatan, Isthmus of Panama, and Nicaragua; in the highlands in the interior of these countries, per contra, phthisis is almost unknown." This cannot be due to the more dense population of the coast, as nearly all the larger cities are situated in the highlands at an altitude of 3,000 feet or over. The city of Mexico is 7.524 feet above the sea level.

Therefore, as the best condition for preventing tuberculosis seems to be an open air life, we must look to an open air life as one of the great factors in our cure of this disease. In no other way can this be atttained so easily and satisfactorily as by tent life. As to the location of our tent colony, it has been found that, as a rule, patients do



1 TO 12 TENT COTTAGES
13 BATH HOUSES
A & B ENDS OF VERANDA ENCLOSED IN GLASS
C CHIMNEY & VENTILATING SHAFT
D CANVAS CURTAINS

rather better in northern resorts than in southern, especially during the colder months, for most of the northern sanatoria are located in places where the summer is apt to be hot and oppressive and many patients lose during the summer all that they have gained the previous winter.

There is a stretch of territory extending across northern New Mexico and southern Colorado, with an altitude varying from 5,000 to 7,000 feet, in which the winters are not severe and where the summers are most delightful, the thermometer seldom going above 85 degrees F., and even this temperature is not felt any more than a temperature of 75 degrees would be in a moist climate. During the winter, in well selected localities, the thermometer seldom goes lower than 10 or 12 degrees F. There is never any rain during the winter, and, as a general thing, very little snow; the sun shines almost continually. During the spring there is plenty of wind, but no sand storms, except along the rivers, very little rain, and no mud. Somewhere in this region, then, we may select a site for our ideal tent colony. This should be on a sloping piece of ground with a sunny exposure, well sheltered from cold winds, and having an abundant supply of pure water. Rather than tents, tent cottages should be constructed, as they have all the advantages of tents, and at the same time are much more comfortable. These are to be placed in groups of twelve facing the south, with a bath house in the centre of each group, and all opening on a long veranda. This veranda will be covered and the north side made wind proof, each end being enclosed with glass. With the aid of a sliding canvas curtain, each end may be converted into a small solarium, in which sun baths may be taken. These are undoubtedly of great service. Knopf says: "Of the value of carefully conducted solar therapy, I cannot speak too highly. The exposure of the whole body in its nude state to the air and the rays of the sun at the same time, has a remarkably favorable influence on metabolism, oxygenation, and the general condition of the phthisical patient, aside from the fact that thereby his cutaneous system will be educated to a greatly diminished susceptibility, and intercurrent colds will be much rarer."

The dimensions of the tent cottages should be about as follows: Width, nine and one half feet; length, twelve feet; height, ten feet. The frame should be constructed of two by fours; the side walls built to a height of five feet with lumber and heavy building paper, and the remainder of the frame covered with twelve ounce canvas. The door opening on the veranda should have a large glass panel in its upper half. Above the veranda roof each cottage should have a transom, and this, together with a hinged window in the rear wall, must always be left open, except when the patient is dressing and undressing. This will provide plenty of ventilation, as it is very hard to foul the air of a tent, even when no means of ventilation is provided. Army officers report that with ten or twelve men sleeping in one tent the air always seems to be pure. If we look at a piece of canvas through the microscope it is easy to understand why this is so.

The floors are to be double, with a layer of paper between, the floor proper being of hard pine, to be kept polished with a mixture of paraffin and turpentine. This prevents splintering and fills all cracks, so that the floors are easily cleaned and sterilized. The interior woodwork is to be well painted with paint of a soft green shade. The furniture will consist of a single bed, dresser, mirror, two chairs, and a small table with glass or marble top. Each cottage will have an electric bell connecting with the main office. The bath house is to be built of adobe bricks, with hard finished walls painted green. The floors will be the same as the floors of the cottages. The front half will consist of a writing room, and the rear will contain a bath and dressing room, the bathroom to have a bath tub, combined shower and needle bath, water mixer with thermometer, a large nozzle for spraying patients, and a water heater. The dressing room will contain three lavatories, one to be used only for cleaning the teeth, etc. Lockers will be provided for each patient, in which he will keep towels, comb, brush, and so on. Two enclosed water closets will also be in this room. In the centre of the building will be constructed a chimney, with a large fireplace in the writing room. By the side of the chimney will be a ventilating shaft, with openings into the two rear rooms.

The sewage and the water from the bathrooms are to be conducted to water tight tanks, and the water disposed of by subsoil irrigation. The residue from the tanks is to be spread on the ground in the sun at a considerable distance from the building.

The groups of tent cottages for the male and female patients should be separated as far as possible.

It is probable that in the dry air of the Southwest all bacilli are dead before the sputum can dry and become dust; nevertheless, every precaution should be taken to destroy every particle of sputum. When we consider the number of bacilli that a careless individual may scatter about in a single day (Nuttall calculates that as many as 4,000,000,000 may be expectorated in twenty-four hours), it becomes apparent that the greatest effort must be made to destroy all sputum, and, as this sputum may be disseminated as a spray from the mouths of patients, while coughing, and also may infect spoons, dishes, etc., we must look carefully after all these points. All dishes should be sterilized, if not after every meal, at least several times a week, and this can best be done by boiling them for twenty minutes or more in water, to which bicarbonate of sodium has been added. Upon entering the sanatorium, patients should be directed never under any circumstances to expectorate anywhere, except in their sputum cups, and always to hold a handkerchief in front of their mouths while coughing. These handkerchiefs should be changed frequently and used for no other purpose, and should be carried in a special pocket with a detachable india rubber lining, which can be easily sterilized. The sputum cups should be of cardboard, with tin holders. When away from the buildings patients may use the cardboard pocket flask. All cups with their contents are to be burned, the sputum being first well mixed with sawdust. Coughing should be discouraged as much as possible, the patients being informed that it is detrimental to their best interests, and should never be allowed at mealtime.

All cleaning of the rooms must be done with cloths wet in a solution of 1 to 100 of chlorinated lime. Brooms and brushes should never be used. Bottles containing a solution of chlorinated lime should be placed in all tents and patients instructed to use the solution to wipe up any particles of sputum that may accidently fall upon the furniture or floor.

In the Southwest it is very seldom that cattle are affected with tuberculosis, and this is certainly a strong point in the favor of that region, as there can be no doubt that products from tuberculous cattle are very detrimental to patients suffering from tuberculosis, and every one who has paid any attention to the subject knows how thoroughly infected are the cattle in all the milk producing countries surrounding our great cities, and patients in and around these cities must necessarily consume more or less of the products from tuberculous cows. Law states that by the tuberculin test he has found that 16.75 per cent. of New York State cattle are infected (1894), and in many localities the percentage is much higher.

It is altogether probable that if all tuberculosis could be stamped out in our domestic animals, it could in time be removed, or at least greatly diminished, in the human race.

As patients improve it is necessary to give them exercise, beginning first with short walks and later on longer walks, drives, croquet, and golf. When the patient is about cured, tennis, horseback riding, swimming, etc., may be indulged in, and, in our ideal tent colony, all these things should be provided for.

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Washington Statistics.—Typhoid fever claimed fewer victims in Washington during the week ending October 29th, than any week recently, according to the weekly report of the health department of the district. Only 19 new cases were reported for that week, as compared with 34 the previous week. There are now 243 cases, a net decrease of 8. Last year at this time there were 157 cases under treatment. Scarlet fever conditions remain the same, there being 32 cases under treatment. Diphtheria has continued to increase, and there are now 58 cases under treatment. The district is free from smallpox. There were 143 births during the week, of which 107 were white and 36 colored. Ninety-six deaths occurred during the week, or 9 less than in the week previous and 6 less than during the corresponding week last year. The death rate among the whites was 14.2 and 22.1 among the colored. Four deaths were due to accidental violence and one to suicide.

THE TREATMENT OF DIFFUSE PERITONITIS.

By JOSEPH A. BLAKE, M. D.,

NEW YORK.

In a short paper[1] read last year before the American Surgical Association I gave a résumé of the methods and the results obtained in the treatment of thirty-two cases of diffuse peritonitis from various causes. Since that time a number of such cases have occurred in my service at the Roosevelt Hospital, affording additional opportunity to observe the results of the treatment as outlined in that paper. I have also been somewhat surprised at the interest still displayed and the diverse opinions held by different observers in regard to the treatment of these cases.

Where diversity of opinion exists there must be room for improvement, and as these cases on account of their serious nature form a very important class of our hospital cases, there is abundant excuse for stating and comparing our views.

It has been our experience during the last year at the Roosevelt Hospital that a much larger percentage than usual of the cases of appendicitis have entered with diffuse peritonitis.

This disproportion may be fairly attributed to the exigencies of a large emergency service in which there is not always room to care for the less urgent cases. Mention is made of this fact in order to emphasize the unfairness of comparing the statistics of hospitals doing a large emergency service with those having no emergency work.

In the discussion of diffuse peritonitis the question always arises as to the writer's or speaker's conception of the term. Unquestionably these cases differ not only in the extent of the process, but in the virulence of the infection and the patient's ability to withstand it. Inasmuch as the two latter factors are largely indeterminable, except in so far as indicated by the progress and extent of the process, it would seem best to classify these cases according to the extent and progress of the peritoneal involvement.

Led by these considerations I divide all cases of peritonitis into two main groups, localized and diffuse. The cases of localized peritonitis are those in which the products of inflammation are limited by adhesions, or, in other words, form an abscess. By diffuse peritonitis I mean an established progressive inflammation without definite limitations, evidenced by extensive redness of the peritonæum, a definite inflammatory exudate, a tendency to general involvement, and intestinal paralysis. These cases are conveniently subdivided into cases of spreading peritonitis, in which parts of the peritonæum can be demonstrated as free from the invasion; and general peritonitis, in which no part, possibly excepting the lesser sac, is uninvolved.

Cases in which there is a moderate amount of seropurulent effusion, as is often seen in the early stages of an active appendicitis, are not included, for there is reason to suppose that in a number of these resolution may occur.

In the treatment of these cases there seem to be differences of opinion in regard to the following points: 1. As to the time for operating. 2. As to the manner of removing the exudate. 3. As to the employment of drainage. 4. As to the after-treatment.

In regard to the time for operating, I have not changed my views in favor of early operation, believing that the patient has a better chance with the source of his infection and the major portion of the exudate removed and that the shock of a quick operation is less dangerous than delay.

The methods of treating the exudate vary. Some surgeons cleanse the abdomen with wet or dry mops, others do very little cleansing, except in the vicinity of the wound. Many of us wash the peritoneal cavity with hot saline solution. All methods of cleansing are open to some objection, for they all prolong the operation, add to the depression of the patient, and increase intestinal paralysis. Of these objections the increase in intestinal paralysis is the most serious. The more abdominal work I do, the more I am impressed with the direct ratio between the amount of intestinal handling and the postoperative meteorism. On this account, I have endeavored to minimize, as much as possible, exposure and traumatism to them. The consequence has been partly due to this and also to better methods of combating meteorism, that it is no longer the bugbear it formerly was.

I have always believed in washing the cavity with large quantities of saline solution, since foreign material and the products of inflammation can be removed in this way more rapidly and thoroughly and at the same time with less injury to the delicate endothelium.

In the presence of intraabdominal pressure, due to distention of the intestinal coils, it is a difficult matter to accomplish thorough lavage. If a large incision is made and the fluid is introduced through an ordinary Chamberlain tube, on account of the increase in the intraabdominal pressure evisceration of at least some coils, which can be replaced only with the greatest difficulty, is bound to occur.

In order to overcome this and enable me to use a smaller incision. I have devised an irrigating tube with a central inlet and lateral outlets which, connected with a siphoning rubber tube, permits of a very rapid change of the water in the belly without increasing materially the intraabdominal pressure. This principle is not original, having been previously applied by Dr. P. R. Bolton at the New York Hospital in similar cases, although with a somewhat different device.

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[1] *Annals of Surgery*, August, 1903.

The apparatus, although somewhat clumsy in appearance, has been most effectual. By its use the abdomen can be washed in a quarter of the time it took with the simple tube, thereby saving from ten to fifteen minutes in every operation, and the extent of the purulent effusion can be accurately estimated as well as the degree of cleansing accomplished, by observing the character of the outflow. The suction produced by the siphon attachment causes the larger masses of foreign material, which cannot pass through the apertures, to adhere to the surface of the tube. In this way fibrin and, in one of the reported cases, a rupture of the intestine, pieces of lettuce leaves have been successfully removed. It has been in use for the past year in cases of appendicitis, typhoid perforation, perforating ulcers of the stomach, intestinal ruptures, and abdominal hæmorrhages. In using it, the siphon attachment must not be too long, otherwise too much suction will be exerted and the omentum, if delicate, may be drawn in through the outlets. I have had this happen in one case, without, however, causing more than an annoyance. After using this instrument less water as a rule will be left in the peritoneal cavity than is the case with the simple tube. There is always, however, some excess and I allow this to remain, as it is quickly absorbed, and a certain amount escapes through the wound into the dressing.

The escape of this fluid into and through the wound brings up the question of drainage, as it is necessary to provide some outlet for it. In several cases in which drainage was omitted the seepage of this infected fluid from the peritoneal cavity, or possibly the infection due to soiling at the time of operation, caused extensive suppuration of the wound in the parietes. Consequently I have found it much better to drain just through the wound, the drain only entering the peritoneal cavity for half an inch, in those cases in which drainage of the peritoneal fossæ was thought to be unnecessary. For this purpose the ordinary cigarette drain is used and is removed at the end of thirty-six to forty-eight hours. This method was employed in a number of the cases reported in the paper I read last year, except that in those cases the drain did not enter the peritoneal cavity, and showed many advantages over the method of deep drainage. These in brief were a less mortality, a much shortened convalescence, as evidenced by more rapid subsidence in temperature and shorter wound healing, a greater freedom from postoperative meteorism, and an absence of intestinal obstruction. Among the cases observed since that time, there has been none in which there has been cause to regret using this method. However, all cases of diffuse peritonitis should not be treated by means of deep drainage. In the paper already referred to, I made the statement that drainage should be omitted unless it was absolutely indicated by the presence of non-absorbable necrotic tissue or exudate. Another way of putting it is, that when after removal of the source of infection all parts of the peritonæum look alike, drainage should be omitted. I have never advised non-drainage in abscess cases or in cases of diffuse peritonitis when foreign material that might continue the infection was left behind. I emphasize this point, since I have heard that, as a result of my views, the incision for appendicitis with abscess has been closed, of course, with disastrous results.

The after-treatment of these cases has been simple, and has been based upon the same principle as advised by Ochsner for some cases of appendicitis before operation, namely, entire rest for the alimentary canal. The stomach is washed out before the patient leaves the operating table, and no food is given per os until all tendency to nausea is past. When the general condition is very bad intravenous infusions are given; otherwise saline enemata or irrigations are employed. If nausea persists unduly, nutrient enemata are alternated with the saline enemata. If the patient is restless morphine is administered. When this treatment is thoroughly instituted postoperative paralysis of the intestine and distention are seldom to be feared.

I have not found it necessary to make an enterostomy in order to combat distention, although in several of the cases I have opened the gut, emptied it, and then closed it immediately. This is a valuable aid when the distended coils escape from the wound and cannot be returned without using unwarrantable force. The intestine is drawn over the side of the patient and stabbed with a knife, and, as soon as the adjacent coils have emptied themselves, the hole is at once closed with a purse string suture. I have not found that the introduction of magnesium sulphate has been of material benefit.

Only lately I have received a form of cannula from Dr. R. B. Greenough, of Boston, which he says is being used with considerable success at the Massachusetts General Hospital. It is simply a glass tube, bent at right angles, on one end of which there is a collar. This end is inserted in a small opening in the gut which is firmly closed about it with a purse string suture; the flanges of the collar keeping the tube from slipping. The tube is then brought out of the wound and attached to a rubber tube, which passes over the side of the bed to a bottle. By this means the intestine can be irrigated, and, after several days when convalescence is established, the tube is simply withdrawn, the gut by this time being adherent to the peritonæum. Closure of the fistula occurs without operative aid, since the opening in the gut is situated deep beneath the abdominal wall. I have not as yet had occasion to try this device, but readily appreciate how useful it might be in some cases.

Much has been written in regard to postural drainage. I have found it useful when considerable fluid has been left in the abdomen and a drain has been introduced. In these cases I elevate the head of the bed if the drain is in the pelvis, the foot, if in the upper part of the abdomen; otherwise I have not employed it.

In the past year I have operated in nineteen cases of diffuse peritonitis; five of these were generalized and fourteen were cases of spreading peritonitis. Of the cases of general peritonitis, one was caused by appendicitis and the patient died, two by the perforation of gastric ulcers with one death, one by a rupture of the jejunum which ended in recovery, and one by what was apparently an acute pancreatitis, which also ended in recovery.

The case of appendicitis was a most interesting one. The patient was a vigorous man, thirty-five years of age, who had had an operation for appendicular abscess a year before in one of the smaller cities, without removal of the appendix. He was admitted to the hospital with a large ventral hernia, a history of two days' illness, and all the signs of a diffuse peritonitis. Operation disclosed the appendix above the hernia and just beneath the liver. A mass of adhesions in the vicinity of the hernia had prevented the exudate from travelling down the right gutter, and it had consequently extended across the abdomen to the splenic region and then downward throughout the cavity. The exudate was purulent and fibrinous. The intestines were distended. After the usual washing, the abdomen was closed with superficial drainage only. The after-course was extremely satisfactory, with a steady decline in temperature, a flat abdomen, the bowels acting, and no nausea, until the third day, when a lobar pneumonia supervened and he died on the fifth day. The necropsy disclosed consolidation in both lungs; the peritonæum was somewhat injected and its surface appeared somewhat roughened and adherent in places, but there was no exudate. Resolution had practically been accomplished.

In one of the cases of gastric ulcer, the ulcer had penetrated forty-eight hours before operation; the patient, a man, thirty-one years of age, was much prostrated, the abdomen being full of bile, stomach contents, pus, and fibrin. The ulcer was closed, the cavity washed, and a superficial drainage instituted. The peritonitis continued, however, and he succumbed on the fourth day.

The other case of gastric ulcer had perforated twelve hours before the operation. The patient, a man, thirty-five years of age, was in fair condition; the peritoneal cavity, however, was full, as in the other case, of bile, stomach contents, and pus. Even the pelvis was full; the intestines were distended and covered with fibrinous plaques. The perforation was at the pylorus, and when closed the pylorus was practically shut off. Consequently, after thorough washing of the peritonæum, a posterior gastrojejunostomy was done and a superficial drain was introduced. This patient made an uninterrupted recovery.

The fourth case of general peritonitis was caused by a transverse rupture of the jejunum about a foot from its commencement, which allowed the upper intestine and the stomach to empty themselves into the peritoneal cavity. In this case, also of twelve hours' duration, there was already a definite purulent and fibrinous exudate throughout the abdomen. With the irrigating tube, pus and lettuce leaves were removed from the pelvis. This patient was drained superficially, the wound, however, suppurating throughout, but he made a good recovery.

The fifth case was that of a fat negro woman, thirty years of age, who had been sick with severe abdominal pain for four days. Operation disclosed a seropurulent exudate through the abdomen and redness and distention of the intestines. Everywhere throughout the mesenteries and the omentum there was an extensive fat necrosis. The pancreas did not seem to be much enlarged. There was an obliterating appendicitis. A large cigarette drain was introduced through the transverse mesocolon into the lesser cavity and the appendix was removed. The patient's condition was extremely bad, and she was not even washed out. To our surprise she made an excellent recovery. The examination of the specimens removed demonstrated a typical fat necrosis.

In the group of fourteen cases of spreading peritonitis, there were eleven caused by appendicitis and three by the perforation of typhoid ulcers.

Three cases of appendicitis were fatal. This mortality is greater than that in the series reported last year, in which there were ten cases with no deaths. This increase in mortality can be explained rather by the condition of the patients and the extension of systemic infection than by the technique. In one of the cases of death, suppuration had extended throughout the mesoappendix. The patient, moreover, was alcoholic and very obese, and the operation was difficult and prolonged. He seemed to die of a general sepsis rather than of his peritonitis. Death occurred on the eighth day. In this case deep drainage was employed. In one of the other cases, in a young physician, the patient was in poor health before his attack. He had a purulent exudate over a little more than half of the abdomen. After the operation, he became jaundiced on the second day, but the peritoneal condition seemed to improve, the abdomen became soft and flat, and the bowels were acting; yet on the fifth day he suddenly became weaker and died of a terminal infection on the sixth day. No necropsy was obtained.

In the remaining case death was due to persistence of the peritonitis. It was extensive at the time of operation, involving all but the region about the spleen, and was of forty-eight hours' duration. The wound was reopened on the fifth day after the operation and, while resolution had taken place throughout most of the area involved, two collections of seropus were found on the left side. Death occurred on the sixth day. I may say that I have never found much good to result from reopening the abdomen in these cases.

In three of the cases of spreading peritonitis caused by appendicitis deep drainage was necessary. The others were only superficially drained. Several of the cases, in patients who recovered, were worthy of special mention, but I shall refer to only two.

One was that of a woman, seventy-two years of age, in the second day of the attack. The process had extended throughout more than half the abdomen, and the appendix had become perforated. The patient was, however, in fair condition and the operation was an easy one, the appendix being removed through a small incision, and the whole abdomen washed thoroughly and closed with layer sutures, except for the small drain through the wound, in twenty-four minutes. This is the oldest patient I have known to have recovered from a diffuse peritonitis.

The other patient was a man, fifty-eight years of age, whose appendix had become perforated thirty-six hours before the operation. He was very obese and plethoric and took the anæsthetic badly. The peritonitis involved over three fourths of the cavity. Three days after the operation, he was attacked with double lobar pneumonia, yet he made a good, although slow recovery.

The remaining three cases of spreading peritonitis were caused by perforating typhoid ulcers; there were two recoveries and one death. This patient, however, was almost moribund, having nearly bled to death, two days before, from his ulcers. Yet after the operation the signs of peritoneal inflammation disappeared entirely and he died on the fifth day, apparently of asthenia. Both the patients who recovered suffered relapses and one died in the relapse on the twenty-ninth day after her operation for perforation.

In these cases I have found the double irrigating tube of the greatest value; since the escaped fæcal matter and the exudate can be removed with greater rapidity than by any other method that I am familiar with.

In summing up the results in this series of general and spreading peritonitis we find there are five cases of general peritonitis with two deaths; one patient died from pneumonia, the necropsy showing that the peritonitis had resolved, leaving only one, a case of perforating gastric ulcer of forty-eight hours' duration, in which the death could be fairly attributed to the peritonitis per se: and fourteen cases of spreading peritonitis, with four deaths, in two of which, as far as could be told by clinical evidence, the peritonitis had resolved, leaving two in which death was caused by a persistence of the process.

Grouping all the cases of the last year with those operated upon and reported by me previously, there are 51 cases of diffuse peritonitis, comprising 29 cases caused by appendicitis with a mortality of 28.5 per cent.; 5 by typhoid perforation with a mortality of 40 per cent.; 6 cases by perforating ulcers of the stomach or duodeneum with a mortality of 50 per cent.; one by perforating ulcer of the ileum with fatal result; one by rupture of the jejunum, with recovery; one by acute pancreatitis, with recovery, and 8 cases by infection through the Falloppian tubes, partly gonorrhœal and partly pneumococcus and streptococcus infections, with a mortality of 62 per cent.

In the 29 cases of appendicitis, superficial drainage was employed in 17 instances with 3 deaths, and in only one of these was death due to persistence of the peritonitis, while deep drainage was employed in 12 instances, with 5 deaths, in all of which the peritonitis persisted. Two of the patients, however, were practically moribund and so are hardly fit for comparison. In two of the 5 cases of typhoid perforation, deep drainage was employed, one patient recovering, the other dying; three cases were drained superficially, one patient apparently recovering from the peritonitis, but dying of the disease on the fifth day. The two others recovered.

The only cases of perforated ulcer of the stomach or duodenum that resulted fatally were those in which the operation was deferred until twenty hours or more had elapsed after perforation.

In two of them abscesses had formed and ruptured, death occurring ten and sixteen days after the operations. In both of them deep drainage was employed. In a case of perforating ulcer of the duodenum deep drainage was also employed, recovery resulting. Three other cases of perforating ulcer of the stomach and one case of rupture of the jejunum were only superficially drained. In all of these recovery was rapid with one exception, a perforation of forty-eight hours' standing in which the peritonitis persisted. The patient with pancreatitis recovered with deep drainage and without lavage. All of the cases of tubal origin were drained deeply with one exception, which, with two of the others, terminated in recovery.

To sum up the comparative mortality in the whole series of 51 cases; among the deeply and superficially drained cases we find that deep drainage was employed in 26 cases with 14 deaths, while superficial drainage was employed in 25 cases with 5 deaths. These figures are rather startling, but it must be remembered that in a number of the cases in which deep drainage was employed, the very conditions, namely, abscesses, etc., which demanded drainage, were the ultimate cause of death. Eliminating these cases, there still remains a large balance in favor of no drainage or superficial drainage only.

Lavage of the peritoneal cavity was carried out in all but one of these cases, so that no comparative deductions can be drawn in regard to the methods of cleansing the peritoneal cavity.

The main point, perhaps, in the treatment of diffuse peritonitis is yet to be mentioned, and that is early diagnosis. Without this, early interference is impossible. The later symptoms of diffuse peritonitis, namely, the marked distention, the regurgitation, the flexed extremities, the facies, and the depression from septic absorption, should never be awaited. Perhaps in no cases is this axiom more true than in the perforating lesions of the hollow viscera, particularly of the upper part of the alimentary tract. I have never lost a case of perforation in this region when the operation has been done in the first twelve hours, while most of the long standing cases have been fatal. Typhoid perforation, when operated upon in a few hours, should give good results. The operation is easy and quick, and the patients bear general anæsthesia admirably.

In appendicitis another element is always present, namely, an already instituted inflammation. Yet in these cases also, the early removal of the appendix is followed by the best results.

A few years ago we thought we did well when we saved a third of our cases of diffuse peritonitis due to appendicitis; now we feel badly if we lose a third. This improvement in our statistics is due firstly to better and earlier diagnoses by the general practitioner, and, secondly, to our better technique. In the three years preceding this last I operated in ten cases of appendicitis with spreading, and seven with generalized peritonitis; in the last year in eleven with spreading and only one with generalized peritonitis. Inasmuch as spreading peritonitis is simply an earlier stage of generalized peritonitis, these figures are strong evidence as to improvement in the diagnostic ability of the physicians who refer the cases to me. In 21 cases of appendicitis with spreading peritonitis, operated upon by me in the last four years, the mortality has been 14.3 per cent., while the mortality in the cases of appendicitis with general peritonitis has been 62 per cent.; the mortality being 28.5 per cent. for all cases of diffuse peritonitis caused by appendicitis.

The mortality of operations for diffuse peritonitis, as given in articles written upon this subject three and four years ago, was in the neighborhood of 60 to 70 per cent. In the near future, I hope and expect it to be below 20 per cent.

To sum up: the main points in treatment that have given the best results in my experience are an early operation; a rapid operation, but not necessarily a large incision; the least possible handling of the intestines (if they escape from the wound and cannot be returned they should be emptied through a small enterotomy incision); thorough lavage; the omission of drainage when possible; and an after-treatment in which the main features are absolute rest for the alimentary canal and the exhibition of large quantities of fluids.

601 Madison Avenue.

Appointments of Albany Physicians.—Dr. Mary Clayton, of the St. Lawrence State Hospital medical staff, has been appointed woman physician at the Craig Colony for Epileptics at a salary of $1,000 per annum. Dr. Frank R. Haviland has been appointed junior physician at the Manhattan State Hospital at a salary of $900 a year and maintenance.

PASSAGE OF A TOOTH PLATE THROUGH THE ALIMENTARY TRACT.

By M. K. ELMER, M. D.,
BRIDGETON, N. J.

Most physicians can recall to mind some cases, in the course of their practice, of the passage of a foreign body through the alimentary tract. It may have been of a nature to give but little uneasiness to the patient. Small, round bodies, bullets, marbles, coins, and the like, are frequently swallowed and make their way out of the stomach, through the intestinal canal, without any evil consequence.

On the other hand, if the foreign body has an angular, elongated, or irregular shape, it may cause more or less anxiety, from the sudden symptoms, uncertain diagnosis, and the treatment required. The variety of objects that have been swallowed by accident or design are too numerous to mention. Among the foreign bodies that have frequently been swallowed by accident may be mentioned artificial teeth, of which there are numerous cases reported. These cases are always serious, on account of the irregularity and roughness of the plate, and usually require an operation. As an exception to the rule, and on account of the unusual and favorable termination of the case, I report the following:

C. B., aged fifty-nine years; farmer; while planting corn one warm, sultry day in June, 1899, he was suddenly taken dizzy, and, fainting, fell to the ground. His son, who was working in the same field near by, saw him fall, went to his assistance, and found him coughing and choking, and, as he expressed it, "gasping for his breath and I thought he was dying." The patient was unconscious, so his son carried him to the house, and thinks it was about an hour before his father was himself; or, at least could talk, or say anything about his condition. During this time he acted as if something was choking him. It was almost two hours from the time he was taken sick before I saw him.

I found him sitting up, complaining of headache, nausea, and some pain in the chest; he said his throat was sore and it hurt him to swallow; and he had been spitting some blood. The pulse was weak. He made the remark that his false teeth were missing and was sure he had had them in his mouth when he fainted; it was an upper plate with three front teeth attached. A careful search was made, by members of the family, of the ground where he fell, and elsewhere, but the teeth could not be found. Placing him in a good light a physical examination of the throat was made, by inspection and palpation. There was no evidence of suffocation, and nothing could be felt, but there was a laceration on each side above the tonsils, passing down the sides of the pharynx, and such as one would expect the sharp edge of a plate to make.

The next day, and for some time following, he complained of dysphagia and hoarseness, and found that when he attempted to eat solid food it choked him, and caused a sense of fulness and pressure at the lower end of the sternum, but he could swallow liquids without inconvenience. It was evident that the teeth had been swallowed and were the cause of the obstruction. Being thin and flat, liquids could pass them, but solids would lodge and block up the passageway, cause nausea and vomiting, weight, and fulness in the epigastrium. The teeth passed down into the lower end of the œsophagus, and the flat surface of the plate remained parallel to the long axis. The most natural place for a foreign body to become impacted in the œsophagus is at the most constricted portions, which are at each end.

The patient's condition remained about the same for six months; the most prominent symptom was the obstruction to solid food; sometimes there was a dull pain, or a burning sensation, cough, or hoarseness. He continued to be around and do light work, but felt weak.

It was about six months after the attack, or accident, that he found he could swallow solid food, when all the previous symptoms of obstruction passed away. However, pain in the epigastric region continued, and belching of gas with sometimes a metallic taste, loss of appetite, and frequent attacks of indigestion, which would compel him to give up work for a while. As time went on he lost some flesh, but continued in the same condition for a long time. He would grow weaker during the attacks of pain, and then he would improve as his appetite returned, and feel better and stronger. He realized the necessity of an operation at all times, but was not willing to submit to it unless his symptoms became more urgent.

In November, 1902, or about three and one half years from the day he fainted, the pain and distress left his stomach. His appetite and digestion began to improve. He gradually regained strength and worked moderately, although he complained of severe pain in the bowels, at three different times, which required treatment to relieve him.

On the following June, he reported at my office and told me that a few days previous he had had a movement of the bowels with sharp, severe, cutting pains, which recalled to his mind the teeth and prompted him to examine the stool, which he did, and, to his surprise and great relief, found the plate and teeth just as he had swallowed them. The plate was two inches long and almost the same in width, with three teeth attached.

They were swallowed June 23, 1899, and they were passed on June 9, 1903, so that they were four years all but two weeks in making their way through the alimentary tract.

It is an exception for foreign bodies, especially one like this with sharp and irregular edges, to remain any length of time in the œsophagus without exciting active symptoms. They usually ulcerate their way through the tissues, causing abscess and perforation, or, passing downward, cause serious disturbance in the abdominal organs. Dr. Roe, of Rochester, in his collection of the different kinds of foreign bodies requiring operation for their removal, shows that tooth plates predominate. Out of 156 operations, 49 were for tooth plates.[1]

There are cases on record where foreign bodies have remained a longer time, but have always been removed by operation from some part of the alimentary tract. Whether there are any that have remained as long a time as in this case, without injury, and have passed unassisted, I have not been able to find, and for that reason thought my case interesting to report.

AN IMPROVISED METHOD OF OPERATING FOR VARICOCELE.

By LUCIEN LOFTON, A. B., Ph. D., M. D.,
BELFIELD-EMPORIA, VA.,
EX-PRESIDENT, SEABOARD MEDICAL ASSOCIATION OF VIRGINIA AND NORTH CAROLINA.

The classic operation for varicocele is resection of the spermatic veins by the open method, and stitching the fragments together. This mode of attack has been quite successful, and is very popular with the twentieth century surgeon. In fact, this plan of treatment has long ago supplanted the ligating or strangling process, held dear by our forefathers. The point that I desire to set forth is that the needling application, when properly executed, is as prompt and efficacious as the operation devised by Bennett many years ago, but, as is the case with many useful operations in surgery, some are discarded for no other reason than that they are not fashionable. The ligation method is truly a most satisfactory procedure, especially in the hands of the narrator, and the modifications I offer are as follows:

The testicular case is prepared for action in the usual surgical manner. The patient is permitted to assume a semirecumbent posture, when the scrotum is grasped with the left hand, the index finger and thumb separating the vas and spermatic artery, i. e., placing them upon the anterior border of the testicle, while the pampiniform plexus is brought well up against the anterior and upper walls of the bag and held there firmly. With a surgeon's ordinary curved needle, three inches in length, armed with a double strand of No. 2 fiddle string, the pouch is pierced at the seat of election, and the mass transfixed. The needle, being curved at an angle of 45 degrees, penetrates the opposite inner wall of the scrotum, but does not perforate it. With the point of the left index finger the needle is guided so as to slip along the inner wall of the bag, making a half circuit of the interior lining and over and above the transfixed veins, and is brought out at the original puncture, and securely tied to the dangling ends of the external ligature. Caution must be observed in drawing the mass of veins well up against the inside anterior wall of the scrotum. This procedure, if thought necessary, may at the same sitting be repeated from one to three times, at whatever points the surgeon's judgment may dictate. If you are sure you have separated the spermatic cord and artery from the general mass, you can firmly tie at once; if not, gradual tightening is advised, as this will indicate the condition of affairs. The tying of the cord and artery with the veins is a mistake some good men have made, but with ordinary precaution it should not occur. However, when this is done, great pain, radiating from the lumbar region to the testicle on the affected side, and even to the penis, immediately sets in, and, if not remedied, atrophy of the testicle will follow.

You will observe by the foregoing that only one opening is generally made in the scrotum, and, when secondary inflammation sets in, the mass will be securely welded to the interior wall of the bag, bringing about a shortening always to be desired, as 95 per cent. of these cases are accompanied with elongated scrotal tissue.

Then, again, the fact that the veins have been securely fastened to the lining of the scrotal walls immediately anchors them and makes it possible for a patient to continue his business without a day's interruption. I have succeeded in operating in this way seventeen times, without any one of my patient's losing a day from his occupation.

I have never had any severe inflammation, or pains, to follow this procedure, or any high temperature resulting therefrom. The patient, of course, is enjoined to wear a well fitting suspensory for some weeks after the operation. Good results have invariably followed in each of the seventeen cases. The bowels and kidneys are kept in a healthy condition during the time the suspensory is worn.

Recovery follows upon an average of about twenty-five to thirty days, i. e., atrophy at this juncture is pronounced, and the patient may be discharged cured. Complete atrophy generally follows in about six months.

Therapeutical Note.

A New Carbolic Acid Antidote.—Persodine is a mixture of sodium and ammonium persulphates. It is recommended by Bufalini as being superior as an antidote to carbolic acid. The soluble sulphates are the most efficient antidotes to this poison, but these persulphates are more energetic and more quickly effective.

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[1] Burnett, Vol. 2.

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THE MEDICAL SERVICE OF THE PANAMA CANAL ZONE.

In its issue for November the *Journal of the Association of Military Surgeons of the United States* gives the following list of medical officers thus far assigned to duty in the zone, with their annual salaries: Colonel Wiliam C. Gorgas, of the army, chief sanitary officer, $7,500; Medical Director John W. Ross, of the navy, director of hospitals, $7,000; Major Louis A. La Garde, of the army, superintendent of the canal hospital, $6,000; Surgeon Henry R. Carter, of the Public Health and Marine Hospital Service, chief quarantine officer, $5,750; Surgeon L. W. Spratling, of the navy, in charge of sanitary work, $5,250; Dr. A. B. Herrick, pathologist and clinician, $4,000; Captain A. N. Stark, of the army, physician, $3,600; Surgeon H. A. Stansfield, of the Public Health and Marine Hospital Service, in charge of the laboratory in Panama, $3,000; Mr. J. A. Le Prince, sanitary officer, $3,000; Lieutenant Theodore C. Lyster, of the army, executive officer, $2,400; Dr. Lewis Balch, health officer, $3,000; Dr. E. S. Wheeler, Dr. W. F. Smith, Dr. T. B. Wingo, and Dr. D. Lacroisade, assistant physicians, $2,400 each; and Dr. Lloyd Nolan, assistant physician, $1,500. Dr. J. C. Perry, Dr. C. C. Pierce, and Dr. F. W. Ames, all officers of the government services, have been appointed members of the medical staff, but their salaries have not yet been determined. It will be seen that this list includes the names of a number of well known sanitarians, some of them men of great distinction. Unless the salaries mentioned are additional to their regular pay as members of the government medical services, we think they are for the most part inadequate, for much responsibility will go along with their duties, and even their great abilities will be taxed in the work that they will have to perform under novel circumstances.

In the same number of the *Journal* Medical Director Ross gives an interesting account of the sanitary resources of the zone, present and prospective. There is the Ancon Hospital, at the Panama end of the zone, with a capacity of about 500 beds. Its buildings are to be repaired and modernized, and a training school for nurses is to be established in connection with the hospital. In this hospital will be stationed those of the Sisters of the Order of St. Vincent de Paul previously connected with it, with the Strangers' Hospital (lately absorbed by the Ancon), and with the Colon Hospital as may elect to remain in the Isthmian service under the new order of things. The Colon Hospital, formed by the consolidation of the French Canal Company's hospital and that of the Panama Railroad Company, has a present capacity of 100 beds, which will at once be enlarged fifty per cent. Along the line of the canal there will be a number of emergency hospitals and dispensaries. Two of these hospitals have already been started, one at Culebra and one at Gorgona. They are of the capacity of eight beds each. Two new dispensaries, under Dr. J. P. Bates and Dr. H. T. Summergill respectively, are to be established immediately. The municipal hospital of Panama, Santo Tomas, which is said to be defective in construction and heretofore wretchedly managed, is to be thoroughly put in order according to modern equipment methods. There is an ill conditioned leper colony on the outskirts of Panama. It is thought that within a short time a suitable and permanent institution for the care of lepers will be established. Heretofore the insane of Panama have been kept in the city prison, but lunatics are now cared for temporarily in buildings within the grounds of the Ancon Hospital, and preparations are in progress for the construction of a building large enough to accommodate the insane of both the zone and the Republic of Panama. There is a convalescent station, established by the French, on the salubrious island of Taboga, capable of accommodating about 150 patients. It is to be put into a suitable condition of repair without delay. It is easy to realize from these data that the work of our medical officers in the zone is to be of no trifling scope or extent. There will be ample opportunities for the display of their best efforts.

IMPORTED FOOD PRODUCTS.

Taking it for granted that our importers of food products, beverages, etc., are not desirous either of foisting unwholesome or fraudulent products upon the people or of getting into trouble themselves, we must suppose that they will receive with great satisfaction certain suggestions lately issued by Dr. Wiley, chief of the Bureau of Chemistry, Department of Agriculture. The suggestions thus far published do not cover the whole ground, but they are sufficient, we should say, for the ordinary guidance of the importer.

Under the law, the Secretary of Agriculture, whenever he has reason to believe that adulterated, falsely labeled, or falsely branded foods, drugs, beverages, condiments, or ingredients of such articles are being imported, may ask the Secretary of the Treasury for samples from original packages of such articles for inspection and analysis, and the Secretary of the Treasury is authorized to open such original packages and deliver specimens to the Secretary of Agriculture for examination, giving notice to the owner or consignee of the articles, who shall be entitled to be present at the inquiry and to introduce testimony. If the articles examined are found to be dangerous to health or falsely labeled or frauded, either as to their contents or as to the place of their manufacture or production, the Secretary of the Treasury shall refuse to deliver them to the consignee.

In the absence of a judicial determination to the contrary, products will be regarded as injurious to health if, with the exception of such well known and approved agents as common salt, spices, sugar, wood smoke, and vinegar, any substance has been added to them for preservin coloring, or other purposes, which substance is injurious to health as determined by actual experimental evidence or rendered probable by the testimony of health officers, hygienists, and physiological chemists; or if they are "decomposed, filthy, decayed, or in any unfit condition for human consumption."

Numerous illustrations are given in the pamphlet of food products so prepared or adulterated or preserved as to be rendered unfit for consumption, and it is not to be doubted that the Bureau of Chemistry will be watchful and diligent in keeping such products out of the country. After the plain suggestions and detailed information put forth by Dr. Wiley, the importers will have only themselves to blame if some of their consignments are denied admission at our ports of entry.

THE CURABILITY OF EPILEPSY.

The general progress that has characterized almost every department of medical science during the past few years has not failed to include the treatment of epilepsy as well. This fact would seem to lessen somewhat the scientific value of a statement made by Hippocrates some two thousand years ago concerning the curability of this malady. Hippocrates said: "The prognosis in epilepsy is unfavorable when the disease is congenital, when it continues to manhood, or when it occurs in an adult. We may attempt to cure the young, but not the old." The nature of this statement may give support to those of the present day who feel that epilepsy is incurable; but in accepting such support, it seems to us they must be willing to ignore, in a measure, the radical advance made of late years in the treatment of the disease itself, and particularly of the individual who has it.

Turner, who has had large opportunities for studying epilepsy in England in connection with the good work that is being done at the semiprivate colony for epileptics at Chalfont St. Peters, declares that the disease is curable in 10.2 per cent. of all cases. He fixes the length of time a patient must be free from attacks in order to be regarded as cured as nine years, which certainly seems ample. Spratling affirms that we may look for five per cent. or more of cures, even in chronic cases, provided the patient is kept under proper treatment as long as the condition of his malady requires. The same author also believes that under proper conditions, that appear now to be promised for the future, the proportion of cures in recent epilepsy may eventually be made as high as it is among the insane, that is, twenty-five to thirty per cent.

It is noted that physicians who have had the care and treatment of epileptics in modern colonies are most hopeful of cure, generally giving the highest percentage of permanent recoveries. The approaching meeting of the National Association for the Study of Epilepsy, to be held in Boston, could not have a finer purpose, it seems to us, than that of stimulating greater interest in the public care of epileptics in suitable institutions throughout the country, and we hope that at the Boston meeting active steps may be taken along that line.

CIVIL SERVICE FOR PUBLIC HOSPITAL STAFFS.

The astute, powerful, and well salaried president of the Board of Cook County Commissioners in Chicago has instituted a startling reform in the management of the county institutions. The profession having been used for a door mat by the public of Cook County during these many years, it occurred to the aforesaid president, Mr. Henry G. Foreman, that medical men rather enjoyed the rôle of lick spittle. With the idea of enhancing their opportunities for self-abasement Mr. Foreman has conceived the plan of putting the county institutions, and especially the Cook County Hospital, of Chicago, under civil service rule. This has been carried into effect, and the aspirant for a position on the visiting staff of the County Hospital must now undergo a competitive examination. A board of examiners of prominent physicians of the city has been appointed. The very constitution of this board of examiners is a disaster to the institution, the interests of which it is supposed to protect. It is certainly not to be expected that the members of the board will compete for the positions upon the staff, and expose themselves to the embarrassing necessity of self-examination. This will exclude some very able men from the competition.

There has been a feeling on the part of many medical men for some years that positions in the public service held by physicians should be salaried. From the hospital superintendent down to the lowest menial in the establishment, salaries are paid. The physician and surgeon, whose functions are more important than those of any other attachés of the hospital, are expected to serve gratuitously, for the glory of the cause and incidentally for self-advertisement. That the interests of the profession at large are often sacrificed to the desire for self-advertisement is well known. That the interests of the sick are conserved by this ambition to laud himself on the part of the surgeon could not be expected. Most of the abuses complained of by hospital patients are traceable directly to this source.

The burdens borne by the physician in the care of the pauper sick belong not to himself, but to the public at large. The profession pays its taxes just as laymen do, and it is an outrage to afflict it with double taxation in the care of the pauper and indigent sick. The dignity of the profession at large is compromised by the struggle for positions on the visiting staffs of our large hospitals under any circumstances, but we have been compelled to submit to it because of the lack of professional *ésprit de corps.* Instances have been known in the county of Cook where money has been paid by physicians, and in some instances men of great prominence, for the privilege of exploiting themselves through the medium of a county hospital service.

The new plan of civil service examinations piles Pelion upon Ossa. How a self-respecting physician or surgeon of prominence can consent to compete for a position upon the County Hospital staff is difficult to understand. Certain gentlemen who are about to take the examination in question are fully appreciative of the truth of this; yet because of the college interests which they represent they propose to immolate themselves. I am credibly informed that an ex-president of the American Medical Association and another gentleman who is an ex-president of the Chicago Medical Society purpose taking this examination. The absurdity of this is redeemed only by the pathos of the situation.

It is obvious that, if the examinations are fairly conducted, the tyro in medicine and surgery will have the best opportunity to secure the positions. The men of experience who consent to be examined will require the broad mantle of the examiner's charity in order to compete with the tyro with a prospect of success. Even though the tyro and the man of experience could meet upon an equal footing in the usual competitive examination for hospital positions, the men who will be willing to submit themselves to the indignity and humiliation of a competitive examination, in which perhaps they will meet with some of their own recently graduated students, will probably be very limited—limited to those who, as I have already stated, are willing to submerge their own self-respect in the interests of the medical colleges.

Instead of submitting to the new rule, the medical profession should rise in arms and demand that the physicians and surgeons on the visiting staffs of the various public institutions be salaried, and salaried to a degree proportionate with the responsibility of the positions and the learning and skill demanded for filling them. If the public should be taught that the best medical services can no longer be obtained for our public institutions without reasonable compensation, the salary question would soon be settled. The day may come when the better class of medical men will absolutely refuse to serve in public institutions without compensation. The least that can be demanded is that the physician who carries the burdens of other taxpayers upon his shoulders should have his own remitted. The prospect of salaries for hospital positions may be very remote and very Utopian, but the justice of the plan can scarcely be disputed.

The sincerity of the president of the county board is open to question. His desire to improve the county institutions is commendable enough, but to do so at the expense of the profession is not so praiseworthy. If he should devote his own time to the service of the county without fee or reward, he would place himself in a more consistent attitude toward the medical profession than he has thus far assumed. If the civil service examinations and appointments are followed by a suitable appropriation for salaries for the medical and surgical appointees, most, if not all, of the objections urged will fall to the ground. If the salaries are large enough and the permanency of the positions is guaranteed under civil service rules it may be profitable for experienced physicians and surgeons to suitably prepare themselves for examinations in competition with medical tyros. Personally, I am curious to know what the attitude of the medical profession at large, as presented in our various medical journals, will be upon the question involved in the foregoing.

G. FRANK LYDSTON.

THE SECTION WORK OF THE AMERICAN MEDICAL ASSOCIATION.

The president of the association, Dr. McMurtry, recognizing the preponderance of the sections in the scientific work of the annual meetings, brought the officers of most of the sections together at a dinner given at the Hotel Astor, New York, on Monday evening of this week. We understand that all those officers who were able to do so came to the dinner, and that very satisfactory steps were taken in the direction of increased effectiveness on the part of the sections.

THE SCHOOL OF MEDICINE OF COLUMBIA UNIVERSITY.

As a contribution to the *History of Columbia University*, Dr. Frederic S. Lee, professor of physiology, has prepared a succinct and very interesting history of the school of medicine (the College of Physicians and Surgeons). As this is one of the oldest of our medical schools, its history is connected at many points with that of medicine in general in the United States; consequently Professor Lee's pamphlet will, we think, prove a valuable addition to our literature.

DAPANOPHOBIA.

This name (*δαπανοφοβία* in Greek) has been given to morbid penuriousness, as Dr. Achilles Rose informs us, he having found the word used in this sense in an Athenian journal called *Neurologia.* The miser is to all intents and purposes a lunatic, and it is convenient to have a term covering his particular form of mental affection.

THE UNIFICATION OF LICENSE EXAMINATIONS.

At a meeting of the American Confederation of Reciprocating Examining and Licensing Medical Boards, held in St. Louis on October 25th, a schedule of the numbers of questions to be asked in the various branches of medicine and surgery was adopted. It was the same as had been adopted a few days before by the Illinois State Board of Health. Uniformity in the numbers of questions seems to mark a step in the direction of unification of requirements, but of course the nature of the questions may still be quite varied.

News Items.

Society Meetings for the Coming Week:

MONDAY, *November 21st.*—New York Academy of Medicine (Section in Ophthalmology); New York County Medical Association; Hartford, Conn., Medical Society; Chicago Medical Society.

TUESDAY, *November 22nd.*—Metropolitan Medical Society, New York (private); Buffalo Academy of Medicine (Section in Obstetrics and Gynæcology); New York Medical Union (private); Richmond, Va., Academy of Medicine and Surgery.

WEDNESDAY, *November 23rd.*—New York Academy of Medicine (Section in Laryngology and Rhinology); New York Pathological Society; New York Surgical Society; American Microscopical Society of the City of New York; Philadelphia County Medical Society, New York Dermatological Society (private).

THURSDAY, *November 24th.*—New York Academy of Medicine (Section in Obstetrics and Gynæcology); New York Orthopædic Society; New York Celtic Medical Society; Brooklyn Pathological Society; Brooklyn Society for Neurology; Roxbury, Mass., Society for Medical Improvement (private); Pathological Society of Philadelphia; Church Hill Medical Society of Richmond, Va.

FRIDAY, *November 25th.*—New York Clinical Society (private); New York Society of German Physicians; Yorkville Medical Association, New York (private); Philadelphia Clinical Society; Philadelphia Laryngological Society.

SATURDAY, *November 26th.*—New York Medical and Surgical Society (private); Harvard Medical Society, New York (private).

Change of Address.—Dr. Shirley E. Sprague, to 71 West Fifty-fifth Street, New York.

NEW YORK.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending November 12, 1904:

	November 5.		November 12.	
	Cases.	Deaths.	Cases.	Deaths.
Measles	70	5	59	3
Diphtheria and croup	304	23	362	27
Scarlet fever	178	9	201	8
Smallpox	2	..	1	..
Chickenpox	72	..	77	..
Tuberculosis	344	150	299	154
Typhoid fever	91	19	100	21
Cerebrospinal meningitis	..	5	..	11
	1,061	211	1,099	224

The Harvard Medical Society of New York wish to announce that Professor Theobald Smith, of Harvard University, will deliver an address upon The Place of Research in the University Medical School, in Hoosack Hall, Academy of Medicine, November 26th, at 8.30 p. m. Members of the medical profession are cordially invited to attend.

Charity Organization Society of the City of New York.—Department of Philanthropic Education, School of Philanthropy, 105 East Twenty-second Street. Attention is called to the lectures of Mr. Veiller. Mr. Veiller's series begins on Monday, November 21st, at eleven o'clock, and continues, at the same hour, on Monday, Wednesday, and Friday of each week, except Friday following Thanksgiving Day, until Wednesday, December 14th. The lectures are given in the library, 105 East Twenty-second Street. Tickets for admission to this series of ten lectures may be had at the office of the Charity Organization Society, price $2.50. The School of Philanthropy, Edward T. Devine, director.

Annex to the Postgraduate.—Through the generosity of a friend of the institution, the New York Postgraduate Medical School and Hospital has been able to open an annex to its dispensary for the treatment of pulmonary tuberculosis. The annex, a boarding house at No. 322 East Nineteenth Street, which has been overhauled and refitted, has accommodation for twelve beds, and for the first time in the history of the hospital and medical school, poor patients in the advanced stages of pulmonary tuberculosis will be able to receive treatment and attention until the crisis shall be past. Six thousand dollars, annually, is promised for its maintenance.

A Case of Destitution in the Profession.—We are requested by a subscriber, who has already done what he could personally for the sufferer, to draw attention to the case of Dr. Charles Kaemerer, an old physician, who must be well known to many of the old practitioners of this city. He practised in New York for a great many years, and about fifteen years ago began to practise also in Hoboken, living since that time in the latter city. He is now nearly eighty years old, is almost blind, having been operated upon for cataracts in both eyes, about two years ago, and is entirely destitute. He has no family and stands entirely alone. He would be glad of the chance to be taken into some home for destitute old men, but it seems that he has tried in vain to gain admission to any such institution. His present address is care of Richard Ruroede, Third and Bloomfield Streets, Hoboken, N. J.

Academy of Medicine.—The section in Ophthalmology will meet on Monday evening, November 21st, at 8.15. Order: Presentation of Cases, (*a*) Krönlein's Operation; Result Four Years Afterward, by M. L. Foster, M. D.; (*b*) Extirpation of the Normal Lacrymal Gland for Atresia of the Lacrymal Sac; (*c*) Congenital Word Blindness; (*d*) Cataracta Heterochronica, by A. Schapringer, M. D.; (*e*) Fibrillary Œdema (Œdema of the Nerve Fibre Layer) of the Retina, by P. H. Fridenberg, M. D.; paper, The Comparative Use of Atropine and Homatropine for Cycloplegia, by Linn Emerson, M. D. The paper will be followed by a general discussion on The Practical Points Involved in Using Cycloplegics for the Determination of Refraction; to be participated in by Dr. H. Knapp, Dr. E. S. Thomson, Dr. T. R. Pooley, Dr. W. B. Marple, Dr. H. H. Tyson, Dr. W. E. Lambert, Dr. H. W. Wootton, the chairman, and others. Alexander Duane, M. D., chairman. H. W. Wootton, M. D., secretary, 35 West Forty-fifth Street.

The section in Laryngology and Rhinology will meet on Wednesday evening, November 23rd, at 8.15. Order: Presentation of Cases, A Case of Syphilitic Tracheal Stenosis, dilated during active ulceration, by Lee M. Hurd, M. D.; Exhibition of Specimens and New Instruments; *a.* A Demonstration of the Value of X Ray Photographs in Frontal Sinus Disease, by F. C. Ard, M. D.; *b.* A Set of Sæptal Knives and Elevators for the Subperichondrium and Osteal Operation, by Joseph H. Abraham, M. D.; *c.* Nasal Splints, by Lee M. Hurd, M. D.; paper, Bony Growth in Tonsil, by W. W. Carter, M. D.; paper, The Results of Partial Inferior Turbinectomies, by George B. McAuliffe, M. D. General discussion. Executive session. Francis J. Quinlan, M. D., chairman. Harmon Smith, M. D., secretary, 44 West Forty-ninth Street.

The section in Obstetrics and Gynæcology will meet on Friday evening, November 25th, at 8.15, as the regular date falls on Thanksgiving Day. Order: Report of Three Cases of Tubal Pregnancy; Report of a Case of Simultaneous Oophorectomy, Appendectomy, and Cholecystectomy; with presentation of patient and specimens, by L. J. Ladinski, M. D.; presentation of specimens with remarks; Primary Carcinoma of the Omentum, Large Lipoma of the Labium Majus, Cystic Papilloadenocarcinoma of the Ovary, by A. Sturmdorf, M. D.; paper, The Use of the Cystoscope in Gynæcology, by Sidney D. Jacobson, M. D. A. Palmer Dudley, M. D., chairman; Charles F. Adams, M. D., secretary, 104 West Seventy-third Street.

PHILADELPHIA.

The Health of the City.—The following contagious diseases have been reported for the week ending November 5th:

	Cases.	Deaths.
Malarial fever	4	1
Typhoid fever	53	3
Scarlet fever	73	2
Smallpox	2	0
Chickenpox	29	0
Diphtheria	89	8
Measles	13	0
Whooping cough	9	1
Tuberculosis of the lungs	43	34
Pneumonia	35	1
Erysipelas	4	1
Trachoma	2	0

The total death rate for the week was 386 in an estimated population of 1,408,154, corresponding to an annual death rate of 14.26 per 1,000. There have been the following deaths from other infectious diseases: Puerperal fever, 1; tuberculosis, other than tuberculosis of the lungs, 9; dysentery, 1; diarrhœa and enteritis, under two years, 20. The infant mortality was 95; under one year, 85; from one to two years, 10. There were 57 still births, 38 males and 19 females. No unusual meteorological phenomena have been recorded by the weather bureau.

Changes of Address.—Dr. E. H. Wiggins, to 4415 North Uber Street; Dr. S. McClary, Third, to 348 South Fifteenth Street; Dr. R. E. Muller, to 2031 South Broad Street; Dr. T. D. Myers, to 1521 Spruce Street; Dr. W. J. Roe, to 1210 Locust Street; Dr. John Cooke Hirst, to 1618 Pine Street; Dr. S. M. Dubin, to 319 Pine Street; Dr. Benjamin L. Gordon, to 1019 South Fourth Street; Dr. L. H. Bernd, to 324 South Nineteenth Street; Dr. Frank C. Knowles, to 332 South Seventeenth Street; Dr. George M. Gould, to 1722 Walnut Street; Dr. Helen Murphy, to 1722 Walnut Street.

Polyclinic Hospital.—During the month of October 140 patients were admitted to the house and 112 discharged. There were 1,849 new visits to the dispensaries; 6,557 return visits of old patients to the dispensaries; a total of 8,406. Six hundred and fifty-nine cases were treated in the accident ward.

Deaths.—Dr. Guilford H. Gunter died suddenly in his office, 221 Market Street, Camden, on November 5th. Dr. Gunter graduated from the University of Pennsylvania; he was forty-six years of age.

Bequests to Hospitals.—By the will of Sallie A Tustin the Methodist Hospital receives $500. By the will of Hannah O'Neill, St. Vincent's Maternity Hospital is one of four institutions among which a residuary estate, valued at $9,000, will be equally divided.

Marriages.—Dr. Herbert Fox and Miss Emma Louise Gaskill were married on Wednesday, November 9th. After their return from the Louisiana Purchase Exposition at St. Louis, Dr. and Mrs. Fox will reside at 4443 Spruce Street.

Dr. Louis Steinhart and Miss Josephine Gans were married on November 9th.

Scientific Society Meetings for Week Ending November 26th.—Monday, November 21st, Society of Normal and Pathological Physiology, University of Pennsylvania. Tuesday, November 22nd, Northwest Medical Society; Philadelphia Neurological Society; Kensington Branch, Philadelphia County Medical Society (postponed meeting). Wednesday, November 23rd, Philadelphia County Medical Society. Thursday, November 24th, Thanksgiving Day, society meetings omitted. Friday, November 25th, South Branch, Philadelphia County Medical Society; Northern Medical Association.

Alumni Society of the Medical Department, University of Pennsylvania.—The Philadelphia Alumni Society of the Medical Department of the University of Pennsylvania held a smoker on the night of November 12th, which was addressed by Mr. Frederick W. Unger, late war correspondent for the London *Times* and the *Daily Express* during the South African war. The subject of Mr. Unger's address was the Russo-Japanese war. Six Japanese students in the University of Pennsylvania were present and made short addresses. The decorations and food were of Japanese character. The following officers were elected: President, Dr. J. F. Schamberg; honorary vice-president, Provost Harrison; vice-presidents, Dr. De Forest Willard, Dr. Edmund W. Holmes, Dr. John Marshall, Dr. A. H. Davidson, Dr. Joseph S. Gibb; treasurer, Dr. Herbert B. Carpenter; secretary, Dr. Benjamin Franklin Stahl.

Resolution on the Death of Dr. Auguste F. Muller.—The following resolution has been adopted by the members of the medical staff of the Germantown Dispensary and Hospital:

The members of the medical staff of the Germantown Dispensary and Hospital have learned with the greatest sorrow of the death of Dr. Auguste F. Muller, who so faithfully served the hospital for thirty-four years, and for more than twenty years was its Chief of Staff.

They feel that Almighty God, in His overruling wisdom, has removed from amongst them one of their most beloved friends and counselors, who, by his lovable qualities and conspicuous attainments, endeared himself to them all, and that the community in which he lived has lost a surgeon and physician of rare ability.

Be it Resolved, That the Staff of the Germantown Dispensary and Hospital expresses its most profound sympathy with the family of Dr. Muller, and that a copy of these resolutions be sent to them, and published in the daily and medical press. B. Gummey, secretary.

The Dermady Sanitarium for Consumptives.—In June, 1903, Miss Margaret G. O'Hara, a graduate nurse of the Philadelphia Polyclinic and College of Graduates in Medicine, and a former head nurse at the White Haven Sanitarium of the Pennsylvania Society for the Prevention of Tuberculosis, rented a property at Mount Airy, one of the outlying, thinly populated sections of Philadelphia, and established a sanitarium for the treatment of tuberculosis. The property consists of two acres of land, with a fourteen room house and a stable. Miss O'Hara had the stable remodelled and converted it into an annex to the house, so as to accommodate twelve patients; the house itself accommodating nine patients. Later, she erected fourteen tents on the lawn for the accommodation of fourteen more patients. Each tent has a wooden floor, raised eight inches from the ground, wooden sides for two feet and the remaining portion of the sides and the roof of canvas. Mount Airy is not provided with a public sewerage system, and the sewage of the property in question, like that of all the other properties in the district, is received into wells, with dirt bottoms and bricked sides, one of which has been in bad order for a part of the time during the past year. The neighbors complained to the board of health that the sanitarium was a nuisance, and asked that it be suppressed. After several inspections, during which the damaged well was ordered repaired, the board of health decided that the sanitarium was not a nuisance, so far as its definition of that term was concerned. The neighbors have now filed a bill in equity in common pleas court No. 1, praying that the use of the premises for a consumptive hospital be declared a nuisance; that the use of the property for the purpose for which it is at present used be declared a breach of the conditions of the title; that Miss O'Hara be restrained from maintaining the canvas tents now on the lawn, and that an injunction be issued restraining the defendants from using the property as a consumptive sanitarium. The second Phœnix Building and Loan Association, the owner of the property, is named as defendant with Miss O'Hara. Francis I. Owen, James E. Hood, and William H. Thorne are the plaintiffs; the latter lives within fifty-seven feet of the sanitarium. The plaintiffs assert that the occupants of the tents may be seen from the street in apparel suitable for a bedroom, but not for exposure to the public view, that the beds in the tents may be seen from the street, that the patients are a source of annoyance to the neighbors because they cough. They state that consumption is a contagious and infectious disease, and is liable to be spread by the dried expectoration of the patients. Miss O'Hara, having had experience in the modern method of treating tuberculosis of the lungs, asserts that the sputum from the patients in her sanitarium is disposed of in a careful and thorough manner; that her sanitarium is conducted in accordance with modern hygienic principles; that the defective well for sewage has been repaired; and that the patients do not expose themselves in improper attire.

GENERAL

Scarlet Fever in Bardwell, Ky.—The County Board of Health closed all schools in Bardwell, Ky., on November 11th, on account of the prevalence of scarlet fever.

Ithaca, N. Y., Health Department.—Dr. H. Burr Bessemer has decided to resign from this department, his practice having begun to interfere with the proper discharge of his duties.

Measles in Delaware County, N. Y.—A severe epidemic of measles is said to be raging in Methol and Acidalia, Delaware county, N. Y., and to be spreading rapidly. The local schools have been closed.

Changes of Address.—Dr. Edward M. Coleman, to Atlanta, Ga.; Dr. Elmore E. Butterfield, to Ann Arbor, Mich.; Dr. John P. Caulfield, to 1534 Sixteenth Street, Washington, D. C.; Dr. Allison, of Toronto, to Rome, N. Y.

Mount Auburn, O., Hospital.—Additions and improvements costing $10,000 have just been completed at the Children's Episcopal Hospital, Mt. Auburn. The additions include two wards, a chapel and an operating room.

Pueblo, Colo., Physician Robbed.—Dr. R. G. Woodward, of Pueblo, Colo., reported to the police of that town on November 8th that he had been robbed of $50.00, and was able to give a description of the colored thief.

Health Officer for Glens Falls, N. Y.—Dr. Martin M. Dolan has been appointed health officer of Glens Falls for a term of four years. The appointment came through the New York State Department of Health at Albany. The appointment of such an officer after so long a time will be welcome to the people of the village.

East End Charity Hospital, Pittsburgh.—Officials of the East End Charity Hospital announced officially on November 15th that the hospital had received a gift of $10,000 from Charles M. Schwab. Mr. Schwab visited one of the sisters in charge of the hospital and declared he would do his share toward the success of the hospital's bazaar, then being held at Duquesne Garden.

Farewell Banquet to Jamestown, N. Y., Physician.—A number of the physicians of Jamestown gave a banquet at the Humphrey house on November 7th, in honor of Dr. A. A. Becker, who has since left for Los Angeles, Cal., with the intention of making his home in the golden State, and during the progress of the pleasant affair the guest of honor was presented with a purse of money.

City Hospital, Cincinnati, O.—Four new internes were installed at the City Hospital on November 10th: Dr. Arthur E. Osmond, Dr. George Mytmyer, Dr. Oscar Behrman, and Dr. Edward Reemelin. This advances Dr. Arthur Vos, Dr. Sidney Lange, Dr. Howard Johnson, and Dr. Charles Goosman to the positions of house physicians, and Dr. Louis J. Ransohoff, Dr. Jesse Wyler, Dr. Oscar Berghausen, and Dr. Charles W. Smith to house seniors.

Woman's Hospital of the State of Tennessee.—We have received the annual report of this nonsectarian institution, of Nashville, which shows a total number of 232 cases treated. The staff is as follows: Surgeon in chief, M. C. McGannon, M. D.; assistant surgeon, Alberto Hudson, M. D.; pathologist, Thompson Anderson, M. D.; consulting surgeons: Duncan Eve, M. D., Paul F. Eve, M. D., Charles Brower, M. D.; consulting physicians: W. G. Ewing, M. D., J. A. Witherspoon, M. D., E. G. Wood, M. D.

Hudson River, N. Y., State Hospital.—Dr. D. B. Loughran has been appointed a junior assistant physician at the Hudson River State Hospital by Dr. Pilgrim. Dr. Clinton J. Hyde has been promoted from medical interne to junior assistant. The office of the first assistant made vacant by the registration of Dr. Bamford is yet to be filled. It is understood that there are seventeen applicants trying for the position. The position is awarded through civil service competition and as one is soon to be held the place will probably be filled in a few weeks.

Ohio Valley Medical Association.—The sixth annual convention of the Ohio Valley Medical Association came to a close on November 10th, at Evansville, Ind. The place of the next meeting will be decided by the executive committee, which will probably select Henderson, Ky. Officers were elected as follows: Presidents, Dr. H. O. Pantzer, of Indianapolis; Dr. Adolph Pfingst, of Louisville; Dr. Brooks F. Beebe, of Cincinnati; secretary treasurer, Dr. Ben Floyd, of Evansville. A committee, consisting of Dr. Dudley Reynolds, of Louisville; Dr. Charles Reed, of Cincinnati, and Dr. A. M. Hayden, of Evansville, was appointed to memorialize the State legislature asking some provision for the care and cure of inebriates.

Cincinnati Polyclinic.—The formal opening of the Cincinnati Polyclinic and Post-Graduate Medical School will take place November 22nd with a reception in the building provided at 911 Race Street. The opening of this clinic and school will prove an epoch in the medical history of the city. Supported by the philanthropically inclined, its projectors intend to give free medical and surgical treatment to the poor of the city, and in the school postgraduate courses to physicians. The building has been entirely renovated with every essential. The following are the members of the faculty: General surgery, Dr. H. A. Ingalls, Dr. Travis Carroll, Dr. H. D. Hinckley, and Dr. Earl Harlan; medicine, Dr. F. L. Ratterman and Dr. W. E. Kiely; ophthalmology, Dr. Oscar Stark and Dr. Theodore A. Christen; rectal diseases, Dr. L. J. Krouse; laryngology, otology, and rhinology, Dr. A. F. Morgenstein, Dr. William C. Harris, and Dr. T. V. Fitzpatrick.

Wayne County, Mich., Medical Society.—The following resolutions were unanimously adopted by this organization on October 31st:

Whereas, The members of the medical profession, as citizens, are entitled to the same privileges as enjoyed by other citizens, and

Whereas, The Board of Regents of the University of Michigan have ruled (*Michigan Alumnus,* October, 1904, pages 2 and 3) that the medical faculty of the University of Michigan must grant gratuitous medical and surgical treatment to everybody applying therefor, whether rich or poor, and

Whereas, Such a condition is contrary to all customs and rules governing the relation of one citizen to another, and

Whereas, Such a ruling deprives the medical citizens within the radius of the influence of the University of Michigan of part of their rights in an unwarranted manner, and is harmful to the State as well as to the medical profession,

It is Resolved, By the Wayne County, Mich., Medical Society, that the Board of Regents of the University of Michigan be asked to rescind its ruling concerning the indiscriminate free medical and surgical treatment of those who apply for treatment at the university clinics; and,

Resolved, That the Board of Regents of the University of Michigan be asked to give a hearing to representatives of the Wayne County Medical Society.

To Study Epilepsy.—The fourth annual meeting of the National Association for the Study of Epilepsy, etc., will be held in the Medical Library, The Fenway, Boston, on November 22nd next. The association invites all persons interested in the welfare of epileptics and in charity work generally to attend this meeting. Among the papers to be read are the following: Presidential Address, by William N. Bullard, M. D., of Boston; The State's Relation to the Epileptic, by Owen Copp, M. D., executive officer of the Massachusetts Board of Insanity, Boston; The Prognosis of Epilepsy, by William Aldren Turner, M. D., of London, Eng.; The Influence of Puberty and Adolescence in the Ætiology of Epilepsy, by William P. Spratling, M. D., of Sonyea, N. Y.; Certain Aspects of the Diagnosis Between Hysteria and Epilepsy, by Dr. Putnam and Dr. Waterman, of Boston; Some Observations on the Treatment of Epilepsy, by Daniel M. Brower, M. D., of Chicago; Spectrum Analysis of the Blood in Epilepsy, by J. W. Wherry, M. D., of Clarinda, Ia.; Syphilitic Epilepsy, by Abner Post, M. D., of Boston; (*a*) Observations on Blood Pressure in the Epileptic, (*b*) Lantern Slide Illustrations of Cases, and of the Massachusetts Hospital for Epileptics, by Dr. Everett Flood, of Palmer, Mass.; Ten Cases on Special Treatment, by Dr. Morton and

Dr. Green, of Palmer, Mass.; Lumbar Puncture in Status Epilepticus, by Dr. Morton; Senile Epilepsy, by G. Kirby Collier, M. D., of Sonyea, N. Y. The objects of the association are: 1, To promote the general welfare of sufferers from epilepsy; 2, to stimulate the study of the causes and the methods of cure of this disease; 3, to advocate the care of epileptics in institutions where they may (*a*) receive a common school education; (*b*) acquire trades; (*c*) be treated by the best medical skill for their malady; 4, to assist the various States in America in making proper provisions for epileptics. The officers of the association are: Dr. William N. Bullard, of Boston, president; William P. Letchworth, LL. D., of Portage, N. Y., vice-president; Profesor William Osler, M. D., of Baltimore, second vice-president; Dr. William P. Spratling, of Sonyea, N. Y., secretary and treasurer.

Statement of Mortality in Chicago, Ill., for the Week Ending November 12, 1904, compared with the preceding week and with the corresponding week of 1903. Death rates computed on United States Census Bureau's estimated midyear populations of 1,932,315 for 1904 and of 1,873,880 for 1903:

	Nov. 12, 1904.	Nov. 5, 1904.	Nov. 14. 1903.
Total deaths, all causes......	413	420	484
Annual death rate per 1,000.	11.17	11.36	13.45
By sexes—			
Males	231	234	266
Females	182	186	218
By ages.			
Under 1 year...............	78	78	77
Between 1 and 5 years......	32	33	39
Over 60 years..............	76	91	126
Important causes of death	—		
Acute intestinal diseases.....	26	21	24
Apoplexy	17	15	16
Bright's disease............	25	42	31
Bronchitis	11	12	18
Consumption	47	50	45
Cancer	25	18	26
Convulsions	5	9	9
Diphtheria	13	12	26
Heart diseases.............	33	33	36
Measles	3	2	1
Nervous diseases...........	13	17	31
Pneumonia	57	49	68
Scarlet fever..............	2	1	2
Suicide	4	9	5
Smallpox	4	2	0
Typhoid fever..............	10	6	14
Violence (other than suicide).	32	24	30
Whooping cough.............	4	3	4
All other causes...........	84	85	99

Except diphtheria, pneumonia, and typhoid fever, which show a seasonal increase, there is nothing in obvious indications to cause apprehension as to the immediate future of the public health. Even the diseases specified, which are subject to increase in autumnal or cold weather, are not yet seriously affected. There were only one half the diphtheria deaths (thirteen), eleven fewer from pneumonia, and four fewer from typhoid fever, as compared with the corresponding week of last year. The hospital population, which is a fairly good index of the public health, continues to show a steady decrease, except of pneumonia patients. The figures for the last three weeks were: Total patients, 1,802, 1,775, 1,754 for the weeks of October 29th, November 5th, and November 12th, respectively; typhoid fever, 60, 63, 60; and pneumonia, 12, 17, 25 for the same periods.

State of New York—State Civil Service Commission.—Examination for Physicians. Open competitive examinations will be held in various cities throughout the State December 3, 1904, for the following positions:

Resident physician, State Industrial School, Rochester. $1,500 and maintenance. Candidates must be licensed medical practitioners of New York State and have had at least one year's experience on the staff of a public general hospital. Subjects of examination and relative weights: Materia medica and therapeutics, theory and practice, surgery, hygiene and sanitation, pathology and diagnosis, hospital management, 7; experience, education, and special training, 3.

Fourth Grade Physician. This examination is intended to provide eligibles for the position of Medical Interne and other medical positions of similar grade in the State hospitals and other State and county institutions. The usual salary is $600, with maintenance, including quarters, board, laundry, etc. It is open to men or women who have graduated within three years from a registered medical school. Candidates of the homœopathic school will be admitted without regard to date of graduation. Candidates may be either non-residents or residents of New York State *and a license to practise is not required.* Subjects of examination and relative weights: Written examinations covering anatomy, physiology, chemistry, materia medica, therapeutics, obstetrics, surgery, theory, and practice, 8; education, experience, and personal qualifications, 2.

In order to be eligible for appointment, candidates must obtain a minimum standing of 60 per cent. on the written examination and 60 per cent. on education, etc., and a general average of 75 per cent.

The medical service of the State comprises the 16 State hospitals, with about 160 salaried medical positions, and about 30 positions in the Pathological Institute, the Craig Colony for Epileptics and other institutions. All higher medical positions, from assistant physicians at $1,200 to $1,500 and maintenance, to superintendents at $3,500 to $4,500 and maintenance, are filled by promotion through regular grades from that of sixth grade or junior physician. The State service presents one of the very best opportunities not only for training in psychiatry, but for general and special medical, surgical, laboratory, and post mortem work as well.

Persons desiring to enter these examinations must execute applications on forms supplied by the commission and file them in the office of the commission before noon of November 28th. Application blanks and further information regarding the character of the service and the nature of the examination for Fourth Grade Physician may be obtained by personal or written application to any of the following:

Utica State Hospital, Utica, N. Y., Dr. H. L. Palmer, superintendent; Willard State Hospital, Willard, N. Y., Dr. R. M. Elliott, superintendent; Hudson River State Hospital, Poughkeepsie, N. Y., Dr. Charles W. Pilgrim, superintendent; Middletown State Homœopathic Hospital, Middletown, N. Y., Dr. Maurice C. Ashley, superintendent; Buffalo State Hospital, Buffalo, N. Y., Dr. Arthur W. Hurd, superintendent; Binghamton State Hospital, Binghamton, N. Y., Dr. Charles G. Wagner, superintendent; St. Lawrence State Hospital, Ogdensburg, N. Y., Dr. R. H. Hutchings, superintendent; Rochester State Hospital, Rochester, N. Y., Dr. E. H. Howard, superintendent; Long Island State Hospital, Flatbush, Brooklyn, N. Y., Dr. O. M. Dewing, superintendent; Long Island State Hospital, Kings Park, L. I., N. Y., Dr. William Austin Macy, superintendent; Manhattan State Hospital, East, Ward's Island, New York, N. Y., Dr. A. E. Macdonald, superintendent; Manhattan State Hospital, West, Ward's Island, New York, N. Y., Dr. E. C. Dent, superintendent; Manhattan State Hospital, Central Islip, Long Island, N. Y., Dr. G. A. Smith, superintendent; Gowanda State Homœopathic Hospital, Gowanda, N. Y., Dr. D. H. Arthur, superintendent; Matteawan State Hospital, Fishkill Landing, N. Y., Dr. H. E. Allison, superintendent; Dannemora State Hospital, Dannemora, N. Y., Dr. R. B. Lamb, superintendent; Pathological Institute, Ward's Island, New York, N. Y., Dr. Adolf Meyer, director; Institution for Feeble Minded Children, Syracuse, N. Y., Dr. J. C. Carson, superintendent; State Custodial Asylum, Rome, N. Y., Dr. Charles Bernstein, superintendent; Craig Colony, Sonyea, N. Y., Dr. W. P. Spratling, superintendent; or to the Chief Examiner, State Civil Service Commission, Albany, N. Y.

Pith of Current Literature.

PRESSE MEDICALE.

October 19, 1904.

Seventeenth French Congress of Surgery (Paris, October 17th to 22nd); Report, including, 1, the Address of Professor Pozzi, and Communications from Various Sections.

2. Results of Excision of the Stomach, By Kocher.
3. Decapsulation and Fixation of the Kidney, By Ceccherelli.
4. Surgical Treatment of Hepatic Cirrhosis, By Monprofit.
5. The Portal Origin of Serious Sequelæ to Operations on the Hepatic Hilum, By Villard.
6. Cholecystenterostomy, Y-Shaped, By Monprofit.
7. Cholecystenterostomy for Persistent Biliary Fistulæ, By Fournier.
8. Hepatic Tumors Cured by Simple Exploratory Laparotomy, By Barnsky.
9. Serious Complications of Chloroform Anæsthesia, By Thiéry.
10. Ethyl Chloride as a General Anæsthetic, By Malherbe.
11. Radiotherapeutical Treatment of Cancer, By Tuffier.
12. New Treatments of Cancer, By Doyen.
13. Treatment of Inoperable Cancers of the Breast by Ovariotomy, By Reynès.
14. Osteosarcoma of the Femur, By Mencière.
15. Paraffin in the Treatment of Pathological Cavities, By Delangre.

1. **Pozzi's Address.**—The address of Pozzi is a review, much condensed, of the work done by the previous sixteen congresses of surgery, the sixteen volumes of transactions published, and the vast influences exerted throughout France thereby, young surgeons being inspired with confidence to operate instead of sending, as formerly, all their patients to Paris. Paris no longer contained a number of surgical mandarins, but shared her surgical glory with the rest of France. All French surgeons now contributed papers to the congresses. Pozzi paid a compliment to the Mayo brothers, of Rochester, Minn., a town, as he said, of less than 6,000 inhabitants, by stating that they gave him an inspiration regarding what he calls scientific decentralization. The large cities, like Paris, however, had received as much benefit from the congresses as the smaller cities, towns, and villages.

October 22, 1904.

1. Operative Rules for the Cure of Acute, Generalized, Purulent Meningitis, By Lermoyez and Bellin.
2. Ocular Hysterotraumatism, By De Lapersonne.
3. Interrogating a Patient from the Gynæcological Viewpoint, By Jayle.

1. **Purulent Meningitis.**—Lermoyez and Bellin believe that the great majority of cases of purulent meningitis are of auricular origin, and cite two cases, both in young women under twenty years of age. The first patient had all the symptoms of leptomeningitis, Kernig's sign, stiff neck, headache, vomiting, and high fever; the left ear was tapped and an adjacent craniectomy performed, without incising the dura mater. Relief was immediate, and the patient was quite cured in one month. Patient No. 2 had had running from the right ear for eleven years before entering the hospital with an acute mastoiditis; the same operation was performed, the dura mater, as before, being left intact; but an intense headache, vomiting, and high fever supervening twelve days later, the dura mater was incised, and the temporal lobe was punctured without hæmorrhage. Symptoms disappeared two weeks later, although, on account of a sequestrum of the labyrinth, the surgical wound was not healed for some four months. Lermoyez and Bellin lay down the following rules: 1. Open the petrous freely and cut down to the dura mater, but not through it. 2. In case of lack of success of rule 1, cut through the dura mater to the subarachnoid space. 3. Perform, and repeat, lumbar puncture. 4. In all cases, avoid the labyrinth.

SEMAINE MEDICALE.

October 12, 1904.

1. Fatty Embolism Following Sudden Reposition of Ankylosed Joints, By de Quervain.
2. The Hospitalization in Different Countries of the Dangerous and Criminal Insane.

1. **Fatty Embolism Following Bloodless Reduction.**—De Quervain recalls the doubts that many surgeons entertain regarding the bloodless, forcible reduction of an ankylosed joint in comparison with cutting down on the joint and the regular, subsequent, surgical procedure, on account of the liability of exciting a latent tuberculosis or osteomyelitis. He states that fatty embolism is likely to follow the bloodless forcible reduction and cites a case of his own, in a boy, thirteen years of age; this patient recovered, but the author found that of ten other cases he found in the literature of the subject, there was no recovery and he believes that many cases have escaped record for one reason or another. The causes seemed to be divided equally between rheumatism, osteomyelitis, rickets, and infantile paralysis. The joints affected were the ankle and knee in all cases, and the hip, also, in two cases, crushing of the bones being particularly likely to occur in reposition of these joints when there is much spongy osseous, or cancellous tissue. The principal cause of fat embolism, however, according to the writer, is the long continued immobilization of the joint, which leads to the formation of fatty tissue instead of bony, and causes a formation in every solution of continuity in the bone, of a mixture of blood and fat concerning the so called lymphatic diathesis, characterized by persistence or even hypertrophy of the thymus gland, which has been believed to predispose to fat embolism, de Quervain would respect it, but even in its absence would not reduce two joints simultaneously and, where a condition of osteoporosis could be demonstrated by radiography, would hardly care to use forcible reduction even in one joint.

LYON MEDICAL.

October 16, 1904.

1. Notes on the Fifth International Congress of Dermatology (Berlin, September 12, 1904), By Carle.
2. Section of the Superficial Femoral Artery and Vein; Ligature; Cure, By Leclerc.

1. **The Dermatological Congress.** — Carle states that he was most impressed at this congress,

1. by Metchnikoff's researches on syphilis in the monkey, those of Klebs on canine syphilis, and Hammonic's on syphilis in the cat; 2. Jeanselme's report on leprosy; 3. Croocker's investigations on the disease of the skin caused by disorders of nutrition; 4. the discussion by Peterson, of St. Petersburg; Béclère, of Paris; Leredde, Lassar, and others regarding the non-surgical treatment of cutaneous neoplasms, during which the merits and demerits of the x rays and of radium were fully exposed. Carle advises the division into sections of future congresses. He found Berlin "a rich, but slightly æsthetic capital."

2. **Injury and Successful Ligature of the Superficial Femoral Vessels.**—Leclerc describes the case of a young butcher who severed the superficial femoral vessels accidentally with a sharp knife. An Esmarch bandage was promptly applied, but it was two hours later when the artery and vein were tied beneath the sartorius. For five days there was suppuration, accompanied by some pain and fever, with coldness and anæsthesia of the limb below the wound. One month later the patient had full use of the limb. Four months later, the patient complained merely of slight coldness in the leg, of formication, and anæsthesia after walking, relieved by a few moments' rest. Leclerc's conclusion is that modern asepsis has almost done away with the danger of ligating the superficial femoral vessels, provided the tying is done below the origin of the profunda.

BERLINER KLINISCHE WOCHENSCHRIFT.

October 10, 1904.

1. New Features in Proteid Chemistry, By A. KOSSEL.
2. Action of Quinic Acid Upon Calcium Metabolism, By E. OBERNDOERFFER.
3. Color Reactions of Sugar, By A. NEUMANN.
4. Action of Lead Upon the Uterus, By L. LEWIN.
5. Progress in Intestinal Diagnosis Through Test Meals, By H. STRAUSS.
6. Relation of Carbohydrates to Autolysis, and the Combinations of the Carbohydrate Group in Proteid Bodies, By C. NEUBERG, and R. MILCHNER.
7. Glycuronic Acid Formation in Man, By J. WOHLEGEMUTH.
8. Therapeutic Value of Pyrenol and the Action of Salicylic Acid Upon the Urogenital System, By F. LOEB.
9. Studies on Pus, By C. POSNER.

1. **Proteid Chemistry.**—Kossel speaks of the similarity of but differences in identity between the various proteid bodies. For the study of the origin of the various proteids, the protamines are especially useful, as they contain from four to five different groups of atoms while the ordinary proteids contain usually but three. The protamines are found in the spermatozoa of fishes and the author gives the results of his studies of them in detail. The differences in chemical structure result in a difference in physiological function. The author shows that poisoning by phosphorus produces chemical changes in the proteid substance of the liver.

2. **Quinic Acid.**—Oberndoerffer considers his experiments to determine the factors which lead to a retention or an increase of excretion of the calcium salts. He shows that by means of acids, considerable calcium can be withdrawn from the body. For his experimental studies, he used quinic acid, and proves that by its use the amount of calcium salts in the urine and the fæces can be decidedly increased, exceeding the amount ingested. He assumes that an increased quantity of calcium is drawn to the intestinal mucous membrane by the action of the acid. No therapeutic value can as yet be attached to the results of the studies.

3. **Color Reactions of Sugar.**—Neumann finds that orcin used as a reagent gives a typical reaction for pentose, but also for the hexoses. It appears that arabinose, xylose, and glycuronic acid, as well as glucose and fructose, can be sharply differentiated by beautiful colors, each of which has a typical absorption band.

4. **Action of Lead Upon the Uterus.**—Lewin has collected statistics, including some of his own observations, which show that the chronic ingestion of lead as it occurs in many occupations, has a destructive effect upon the female generative organs. Women affected with plumbism have large numbers of abortions or premature deliveries of dead children or of infants who die soon after birth. High mortality among the children can be brought about by a very slight lead poisoning, even by plumbism in the father. Lewin advises stringent laws forbidding women to be employed in occupations in which lead poisoning is possible or probable.

7. **Glycuronic Acid.**—Wohlgemuth observed in a physician suffering from severe cocaine poisoning, glucose in the urine, and after the elimination of the cocaine, and the camphor which had been given therapeutically, glycuronic acid in the form of phenolglycuronic acid. He regards these phenomena as due to the diminished power of oxidation evoked by the cocaine, and as proving indisputably the primary origin of glycuronic acid in the body.

8. **Pyrenol.**—Loeb describes pyrenol as a combination of salicylic and benzoic acids and thymol with a sodium salt. He found it to act as an expectorant, and a solvent, and to diminish secretion. It is a sedative in coughs. It is indicated in acute and chronic bronchitis, asthma, influenza, pleurisy, and pneumonia. No ill effects were noted from its use, upon the kidneys or other organs, in doses of seven and one half grains given six times daily.

ZENTRALBLATT FUER CHIRURGIE.

September 24, 1904.

1. Angeiotripsy in Operative Surgery, By E. S. PERMAN.
2. A Peculiar Luxation of the Testis, By JURINKA.

1. **Angeiotripsy in Surgery.**—Perman advises the use of angeiotripsy in general surgery for hæmostatic purposes. Two reasons he gives are as saving of time during operation and the absence of foreign ligature material. The author has devised a special apparatus for this purpose, a modification of Stille's. It works well with vessels of small and medium calibre, but Perman warns against its use in intraabdominal operations, as in intestinal resections, etc., as secondary hæmorrhages may jeopardize life.

GAZZETTA DEGLI OSPEDALI E DELLE CLINICHE

October 9, 1904.

1. The Specific Therapy of Tuberculosis by Means of Vaccination, - By E. Maragliano.
2. Contribution to the Study of Rhinitis with Fœtid Breath. Fœtid Rhinitis Due to the Bacillus Pyogenes Fœtidus, By A. De Simoni.
3. Contribution to the Treatment of Epilepsy by Means of Injections of the Oily Extract of Brain Substance, By Pino Soleri.

1. **Vaccination Against Tuberculosis.**—This is Maragliano's address, read before the Phipps Institute at Philadelphia in March, 1904, and abstracted at the time.

2. **Ozæna.**—De Simoni reports the results of an investigation of five cases of fœtid rhinitis due to the bacillus pyogenes fœtidus. The affection, as a rule, attacks persons in good general condition and age, sex, occupation, etc., have little to do with its development. It may arise as a circumscribed coryza due to the bacillus, and the infection may be carried to the nose by fingers, handkerchiefs, etc. It is not accompanied by any general symptoms. The patients complain of headache, fulness in the head, and obstruction to nasal breathing; of a discharge of purulent character; of frequent sneezing, but, most of all, of an intense and foul odor of the breath. On examination the nose shows the appearance of hypertrophic rhinitis. The discharge is fluid, whitish, and does not readily crust. The bacillus pyogenes is found in it. The treatment consists of the use of detergent and antiseptic washes.

ROUSSKY VRATCH.

October 6, 1904.

1. The Alleged Defects of Vision in Schoolchildren, By R. A. Katz.
2. Chronic Suppurative Inflammation of the Falloppian Tubes (*Continued*), By V. N. Orloff.
3. A Milky Effusion in the Left Pleural Cavity, By P. I. Kolotovsky.
4. A Case of Acute Poisoning as the Result of the Ingestion of Explosive Gelatin, By I. N. Kavalieroff.
4. Erysipelatophlegmonous Inflammation of the Face Complicated by Suppurative Meningitis and General Sepsis, By M. B. Izatchick.

1. **Alleged Loss of Visual Power in School Children.**—Katz maintains that the nervous irritability and the depression which overstudy, especially before examinations, produces in school children, may give rise to a neurasthenic condition in which loss of vision is the effect of autosuggestion. He reports a number of cases in support of his contention. The total number of children of school age whom he examined was 623, and of these 2.89 per cent. had defects of vision which were the results of autosuggestion or of malingering. This large percentage of children who have no real visual defect, but who consult the oculist for alleged deficiencies of eyesight is so large that it should attract the attention of both physicians and educators. The great majority of those who came with alleged defects of vision were girls, and there were only two boys among the eighteen cases reported. This shows the difference between the resistance of the nervous systems of the boy and the girl. It is difficult to say in how many of these cases the defect of vision is caused by autosuggestion, and in how many others it is simply a result of malingering. In a few of these cases there was simply malingering with the desire of obtaining glasses, or simply of exciting sympathy. In some of the cases also, both malingering and autosuggestion played a rôle. The diagnosis of alleged defects of vision in school children may be made by applying mutually correcting lenses. The child is given a concave lens and is asked to read with it, and then a convex lens of the same diopter is added, with the request to read the test card. Usually the first lens is said to improve vision, while both lenses together give the best vision. In other cases plane lenses produce similar results. The treatment of these cases should consist of the removal of the cause of the autosuggestion, if this can be found. Sometimes foreign bodies in the eye, or other causes of irritation induce the impression of diminished vision in school children.

3. **Chylous Exudate in the Pleural Cavity.**—Kozlefsky reports the case of a young farmer aged nineteen years, who presented a chylous exudate in the left pleural cavity. The presence of fluid in the chest was made out by physical examination, and on puncture 2000 c. c. of a milky fluid were removed. In spite of this the pleuritic exudate returned, and the patient died, after leaving the hospital at his own request. The history showed two attacks of hemiparesis of syphilitic origin. The author believes that the cause of the effusion of lymph into the cavity of the pleura was syphilis. This disease produces an enlargement of the lymph nodes throughout the body, and, as the result, the lymph does not flow so readily through the lymph vessel. It therefore seeks collateral channels. The disease may also cause obstruction of the thoracic duct, and once this has taken place, a rupture, however small, is possible.

4. **Poisoning With Explosive Gelatin.**—Kavalieroff reports the following interesting case: The wife of a miner who was employed in blasting with explosive gelatin, found a cartridge containing this substance in her husband's trunk and ate it, taking the cartridge for a piece of confectionery. She was taken with headache, vertigo, and pain in the abdomen. Her husband was afraid that she might explode on the way to the hospital, as her abdomen had become swollen. She was admitted in a state of unconsciousness. Gradually she became partly conscious, and complained of severe pain in the abdomen and in the head. Her face and neck were very red, and the patient was so sensitive that the slightest touch of her hair would evoke a scream. The conjunctivæ were reddened; the pupils moderately dilated; the tongue was tremulous. There was difficulty in swallowing and paresis of the larynx. The abdomen was distended. In view of the fact that explosive gelatin, which is a compound of nitroglycerin, gives off a quantity of nitrous acid vapors while decomposing, the stomach was washed with a solution of sodium bicarbonate, and a number of bubbles of gas escaped. A dose of castor oil was poured into the stomach tube, the patient was given a subcutaneous injection of caffeine, sodium benzoate, and ergotine, and coffee internally. The patient had a copious evacuation and quickly recovered.

The symptoms, therefore, were those of poisoning with nitroglycerin, amyl nitrite, etc. The dose of nitroglycerin taken by this patient was two ounces, or six thousand times the therapeutic dose.

4. **Meningitis and Sepsis Following Erysipelas of the Face.**—Izatchick reports a very severe case of erysipelas of the face in a soldier in whom death was caused by general sepsis. The face was involved first, then the eye, then the scalp. The erysipelas assumed a phlegmonous type and incisions had to be made in the skin in order to allow the pus to escape. Symptoms of meningitis followed, and then those of general sepsis. On necropsy a large amount of pus was found over the optic commissure and in the cavity of the meninges. Metastatic abscesses were also found in the lungs.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

November 12, 1904.

1. Injuries to the Anterior Vaginal Wall in Labor, Their Primary, Intermediate and Secondary Repair, By B. C. Hirst.
2. The Ætiology and Pathology of Cystocele and a New Operation for Its Relief, By J. Riddle Goffe.
3. Clinical Experiences with the Appendiculoovarian Ligament, By Daniel H. Craig.
4. Pelvic Deformity, By George M. Boyd.
5. Is Cæsarean Section a Rational Method of Treatment in Placenta Prævia? By John F. Moran.
6. Prostatectomy in General, Especially by the Perinæal Route, By George Goodfellow
7. Prostatectomy. Is It Wise to Try to Make Any One Operative Method Apply to All Cases? By Eugene Fuller.
8. Erythema Nodosum, By Isaac A. Abt.
9. Prophylaxis of Tuberculosis in Children, By Louis Fischer.
10. The Present Status of the Treatment for Deafness Due to Chronic Catarrhal Otitis Media, By Philip D. Kerrison.
11. The Hot Water Douche in the Treatment of Chronic Catarrhal Deafness, By Gustavus P. Head.
12. The Elimination of Disease, By Walter Wyman.

1 and 2. See this *Journal,* Vol. LXXX, page 91.

3. See this *Journal,* Vol. LXXIX, page 1219.

4. See this *Journal,* Vol. LXXIX, page 1220.

5. See this *Journal,* Vol. LXXIX, page 1221.

6 and 7. See this *Journal,* Vol. LXXX, page 85.

8. See this *Journal,* Vol. LXXIX, page 1257.

9. See this *Journal,* Vol. LXXIX, page 1258.

10. **Chronic Catarrhal Otitis Media.**—Kerrison holds that the term chronic catarrhal otitis media is an elastic one usually applied to a variety of tympanic conditions which are best considered under the following classication: (1) Chronic tubal catarrh, without marked tympanic changes other than those due to retraction of the membrana tympani. (2) Chronic hypertrophic otitis media. (3) Chronic hyperplastic otitis media; dry middle ear catarrh; otosclerosis. The treatment of chronic catarrhal otitis media therefore resolves itself into the treatment of these three groups of cases. The paper considers in detail the diagnosis, prognosis, and treatment of each of these groups.

11. **Chronic Catarrhal Deafness.**—Head claims good results from the use of the hot water douche in the treatment of chronic catarrhal deafness. The author makes no extravagant assertions and the method is recommended specially for home use by the patient. The technics of the douche follows. A specially small tip, or a straight glass medicine dropper is inserted into the tube of a fountain syringe, the patient being instructed how to hold the tip and how deep to insert it. The fountain bag is hung from 18 to 24 inches above the ear. If the tip is small and the bag not too high, two quarts of water will run for about ten minutes and will remain hot enough through that time. Allowance must always be made for the cooling of the water in passing through the tube, so that the water in the bag itself must be too hot for comfort. If the matter is fully explained to the patient he will soon learn to make proper allowance.

BOSTON MEDICAL AND SURGICAL JOURNAL.

November 10, 1904.

1. Tuberculosis, Its Nature and Prevention, By Henry Barton Jacobs.
2. The Ideal Doctor, By David W. Cheever.
3. The Technics of Resection of the Cæcum, By Charles L. Scudder.
4. Plastic Operations for Resection of the Nasal Sæptum and Excision of Sæptal Spurs, By George H. Powers, Jr.

3. **Resection of the Cæcum.**—Scudder reports one case of resection of the cæcum for suspected malignant neoplasm. The patient recovered. The technics he then used is fully described and the general plan of the operation is nicely illustrated. The author advises that the resection of the cæcum, which is the only part of the operation which is of much importance, be performed as follows: The parts being well exposed, an incision is made through the posterior parietal peritonæum at the outer side of the cæcum and ascending colon. The colon is freed from its bed until the hand passes beyond its inner border behind the peritonæum. The vessels behind the posterior parietal peritonæum —the branches of the ileocolic artery—are divided and ligated with fine silk by the use of a Cleveland needle. All mesenteric vessels to the cæcum and to the ileum, so far as it is decided necessary to remove the ileum, are likewise ligated. This leaves the part of the bowel to be removed entirely free. A rubber covered clamp is placed upon the distal portion of the ascending colon. A clamp without rubber cover is placed near it upon the ascending colon. The bowel is divided between the clamps. Sufficient space is left upon the proximal end of the ascending colon, that is, between the clamp and the cut end, to enable a purse string suture to be placed. The distal divided end of the colon is closed by an over and over continuous Pagenstecker linen suture. This suture closes the colon and checks all bleeding from the mucous membrane. The rubber covered clamp is then removed. The closed end of the colon is pushed within the purse string suture,

which is drawn taut and tied. Three or four interrupted mattress sutures are placed over the dimple formed by the puckering purse string suture. The small intestine should now be united to the colon by any of the usual methods.

4. **Operations on the Sæptum.**—Powers describes a flap operation for the correction of sæptal deformities and a similar operation for the removal of nasal spurs. The necessary special instruments are described and illustrated. The general method of performing both operations consists essentially in reflecting a flap of mucous membrane from the portion of the sæptum which requires ablation and then removing the bone or cartilage either with special forceps or chisels, being careful not to injure the mucous membrane covering the sæptum in the other nostril. The advantages of this method of treatment are many. The two chief ones are: (1) The perfection of the ultimate results, and (2) the simplicity and brevity of the after treatment.

MEDICAL NEWS.

November 12, 1904.

1. Hepatoptosis Complicated by Gastroptosis; a Suggestion as to Treatment, By Ellsworth Eliot, Jr.
2. Races and Peoples With Regard to Tuberculosis, By John B. Huber.
3. The Consumption and Elimination of Water in Dry and Moist Climates, with Special Reference to the Cause of Bright's Disease, By William S. Carter.
4. Infant Feeding and Milk Modification, By Ransford E. Van Gieson.
5. Cicatrization—Blood Vessels in Ulcers of the Bladder, By Gustav Kolischer.
6. Tuberculosis in Our Public Institutions, By James Greenwood.
7. Colloids and Ions, By William R. Williams.

1. **Hepatoptosis.**—Eliot suggests the following operation for retaining in position a prolapsed liver. The liver and stomach are exposed by a median incision above the umbilicus. The obliterated umbilical vein, forming a thick cord in the free edge of the falciform ligament, is then identified and drawn forward until it comes in contact with the parietal peritonæum. The hepatic extremity of the ligament then rests against the under surface of the right lobe of the liver in front of the transverse fissure. The lower or umbilical extremity is in close contact with the anterior parietal peritonæum, the two portions of the ligament now forming a right angle. In this position the round ligament is sutured to the anterior parietal peritonæum with chromic gut and the redundant falciform peritoneal reflection is spread out laterally and sutured to the contiguous portion of the parietal peritonæum with the same material, in this way forming a species of shelf for the under surface of the liver. The abdominal wound is then closed in layers. Three cases are reported. In two the author performed the operation described. Both these cases were free of symptoms six months after leaving the hospital.

3. **Bright's Disease.**—Carter shows that there are about twice as many deaths from Bright's disease in Galveston as in the majority of large American cities. Many theories have been advanced to account for this condition of affairs and the author has undertaken to investigate those which hold the climate responsible. Some experiments he has conducted seem to justify the conclusion that one takes more fluid as drink in a moist climate and passes less urine than in a dry one. The author does not believe that this fact has any special bearing on the ætiology of Bright's. He inclines to the belief that there are two causes which explain the prevalence of Bright's disease in Galveston more plausibly than any of the explanations usually given: (1) The excessive use of meats in a climate in which proteids cannot be so readily metabolized as in a colder climate; and (2) the failure to recognize and properly manage acute infections.

5. **Ulcer of the Bladder.**—Kolischer believes that the irritability of the bladder which follows the cicatrization of ulcers is due to the presence of large blood vessels running towards the scar and called into being during the process of repair. Obliteration of these vessels with the galvanocautery will put an end to the bladder irritability.

AMERICAN MEDICINE.

November 12, 1904.

1. Transudates and Exudates, with Report on 75 Fluids, By Joseph L. Miller.
2. Hyperchlorhydria, with Observations on Diet and Gastric Analysis, By James Rae Arneill.
3. The Relations of Ophthalmology to Other Departments of Science, By Edward Jackson.
4. Chronic Prostatitis, By E. G. Ballenger.
5. The Results of Treatment of Carcinoma by the Röntgen Ray, By J. N. Scott.

1. **Transudates and Exudates.**—Miller reports the details of the examination of seventy-five exudates and transudates. Seventeen formal conclusions end the paper. In general it may be said: (1) That the color of the fluid, its reaction, specific gravity, and percentage of albumin may at times be of diagnostic value. (2) A study of the cellular elements in fluids, from the pleural or abdominal cavities, is of comparatively little diagnostic value, either in differentiating transudates from exudates, or in determining the character of the latter.

2. **Hyperchlorhydria.**—Arneill asserts that the analysis of a single test meal is not an adequate basis on which to make a diagnosis of the quality of the gastric secretion. In other words, a test meal, instead of furnishing a fair index of the stomach's secreting capacity, simply determines the amount of hydrochloric acid the particular test meal will call forth. Inasmuch as the stomach secretion may vary from day to day, one should test several meals; and because *each* food has its own special acid curve, one should give a variety of meals. A fair series of test meals consists of the following: In the morning give an Ewald-Boas breakfast of bread and water; for the second test allow the patient to eat his average lunch and for the third meal give him a Riegel test dinner, which consists of a dish of meat broth, a beef steak weighing five to seven ounces, one and a half ounces of mashed potato and roll. Withdrawn in four hours. If the stomach is empty give another Riegel meal next day and withdraw in three hours. A number of cases are re-

ported which show the importance of following the author's advice.

4. **Chronic Prostatitis.**—Ballenger summarizes his paper thus: (1) Chronic prostatitis may be the cause of many serious consequences as sexual neurasthenia, sterility, impotence, and reinfections, it being a favorable nidus for lingering gonorrhœa. (2) The symptoms until recent years have been placed under the headings, spermatorrhœa, azoospermatorrhœa, prostatorrhœa, etc., and were claimed to be of neurotic origin. (3) The literature, except within the last few years, has been both inadequate and misleading because the pathology was unknown. (4) Before giving consent for a patient with an apparently cured gonorrhœa to marry, the secretions of the prostate and appendages should be examined. (5) There is no disease in which more information can be obtained from a careful examination of the prostate and secretions. (6) A discharge after urination, defæcation, or physical exertions, sexual disorders, no matter how mild; urine passed frequently with slight pain at the end of the act, should always lead to an examination of the prostate. (7) Treatment must be directed to complications as well as to the establishment of proper hygiene for the patient; the prostate should be treated by massage, and heat or cold variously applied. (8) The brilliant results of prostatic surgery should stimulate increased interest in the rational medical treatment of chronic prostatitis.

5. **The Röntgen Ray.**—Scott asserts his belief that even internal cancer is at times amenable to the x ray. The author advises, however, that if the cancer is operable the surgeon should first be called in and the x ray treatment should be used to prevent recurrence.

MEDICAL RECORD.

November 12, 1904.

1. Nephrectomy for Tuberculosis of the Kidney, with a Report of Four Cases, By HIRAM N. VINEBERG.
2. The Lymphoid Affections of the Upper Air Tract of Children, By WALTER F. CHAPPELL.
3. A Clinical Observation of One Hundred and Eight Cases of Typhoid Fever, with Special Reference to Therapeutic Fasting, By R. M. HARBIN.
4. The Treatment of Prolapse of the Umbilical Cord, By W. RENOLDS WILSON.
5. Formol-iodine, a Modified Claudius Method for the Preparation of Catgut, By WILLARD J. STONE.
6. Strophanthus in Lobar Pneumonia, By C. AM ENDE.

1. **Nephrectomy.**—Vineberg asserts that a tuberculous kidney should be looked upon as lying within the domain of the gynæcologist. He reports four cases of the disease that have come under his observation and details his method of operating upon such cases. A few general remarks on renal tuberculosis precede the case histories.

3. **Typhoid Fever.**—Harbin is an advocate of therapeutical fasting in the treatment of typhoid fever. He claims that the general toxæmia is reduced and that the effects of hydrotherapy are more marked if this mode of management is employed. Sthenic cases, which are the most dangerous usually, are also those which improve the most from rational starvation. Fasting should be applied from one to three days, until the active symptoms are controlled. The reduction of the degree of toxæmia is hardly noticeable the first day, but is shown by a reduction of one or two degrees of temperature on the second day, and on the third day more than that; but, it is exceptionally advisable to continue fasting through the third day, as the active symptoms are usually ameliorated. In other than sthenic cases, fasting should not be applied, viz., pregnancy, the puerperium, the tuberculous diathesis, the anæmic, etc., but in these cases there is less necessity for its use. The author ascribes the low mortality he has had (3.4 per cent.) in treating 113 cases to the method he advocates.

4. **Prolapse of the Umbilical Cord.**—Wilson concludes that in the event of prolapse of the umbilical cord it would seem that the most favorable results are offered by resorting to prompt delivery. This can be accomplished in suitable cases by manual dilatation followed by direct version rather than by attempts at reposition either by posture or by mechanical means. It appears that we are dealing with a condition that offers almost as unfavorable a prognosis for the child as placenta prævia. Therefore radical means are called for by the gravity of the conditions. The prognosis is so favorable for the mother that it is apt to obscure the necessity for serious consideration for the child's welfare. We are apt to look upon prolapse of the cord as a complication which may be treated expectantly, as long as pulsation can be detected, forgetting the danger of sudden compression. It is in fact more excusable to suffer the death of the fœtus from coiling of the cord (which in most instances cannot be foreseen) than from prolapse in those cases where an early diagnosis may point the way to version with prompt delivery.

5. **A Modified Claudius's Preparation of Catgut.**—Stone claims that his modification of the Claudius method of preparing catgut renders the ligature as strong as silk, pliable, and yet not too elastic to knot well. The modification consists in submerging the raw commercial catgut in an aqueous 4 per cent. formalin solution for thirty-six to forty-eight hours, then washing it in running water ten to twelve hours to free the excess of formalin, and then submerging it in the iodine solution recommended by Claudius for eight days before using.

6. **Strophanthus in Lobar Pneumonia.**—Am Ende asserts his belief that strophanthus, if given early, is capable of bringing all (!) cases of pneumonia to a favorable termination within five days. Some cases are apparently aborted in a shorter time.

BRITISH MEDICAL JOURNAL.

October 29, 1904.

(Seventy-second Annual Meeting of the British Medical Association.)

Section of Surgery.

1. The Limits of Freyer's Operation of Suprapubic Prostatectomy, By J. W. T. WALKER.
2. A Further Series of Fifty-seven Cases of Total Extirpation of the Prostate for Radical Cure of Enlargement of That Organ, By P. J. FREYER.

3. The Cause of Enlarged Prostate, Together with a Note on the Prostatic Glands, By H. T. Herring.
4. The Pathology of Prostatic Enlargement, By P. L. Daniel.
5. Chronic Appendicitis, By W. B. Bell.
6. Congenital Hypertrophic Stenosis of the Pylorus, from an Experience of Fifteen Cases, By J. H. Nicoll.
7. A Series of Cases of Resection of Malignant Growths of the Colon, By C. A. Morton.
8. On the Remote Results of Operations for Varicose Veins of the Lower Extremities, By R. Kennedy.
9. The Use of Paraffin in Plastic Surgery, By S. Paget.
10. The Use of Temporary Silk Sutures for the Fixation of Movable Kidneys, and the Result of This Method in Ten Cases, By H. Gilford.
11. Two Cases of Lightning Stroke, By J. L. Thomas.
12. A Case Illustrating the Operative Treatment of Paralysis of the Serratus Magnus by Muscle Grafting, By A. H. Tubby.
13. Cancer Facts and Cancer Fallacies: A Plea for the More Scientific Study and Treatment of Malignant Diseases, By H. Snow.
14. Remarks on the Value of Gastrojejunostomy and Jejunojejunostomy in Cases of Chronic Gastric Ulcer, By T. G. Atkins.

Section of Obstetrics and Gynæcology.

15. Two Cases of Urethrovaginal Fistula Treated by Operation, By F. J. McCann.
16. A Further Contribution Towards the Study of the Natural History of Tubal Gestation, By A. W. Addinsell.

1, 2, 3, 4. **Enlarged Prostate.**—Walker discusses Freyer's operation of suprapubic prostatectomy, and his claim that he removes the whole of the enlarged prostate in its capsule. He has examined post mortem specimens from cases which have died after prostatectomy, and also the enucleated prostates, and believes that the evidence is sufficient to show that the whole of the enlarged prostate and its capsule is removed. He does not admit that the operation consists of merely shelling out adenomata from within the prostate and that a capsule of compressed gland tissue is left behind. The line of clearage in a perfect case lies between the capsule and the sheath of the prostate—the operation therefore is a complete prostatectomy.

Freyer reports a further series of fifty-seven cases of enlarged prostate in which he performed his operation of suprapubic prostatectomy. There were three deaths, one from heart disease, and two from sepsis. He has performed this operation in 110 cases so far: three were cancerous. Excluding these, the operation was completely successful in ninety-seven cases. Of the ten deaths that took place in connection with the operation, only four can possibly be attributed thereto. Even if all were accepted, the death rate would only be about nine per cent., as compared with a death rate of thirty-three per cent. from lithotomy at the corresponding ages.

Herring suggests that prostatic enlargement is due in the generality of cases to chronic inflammatory changes occurring in the very complex glands with which the prostate is crowded, and in the fibrous and muscular tissues to a more limited extent. His experiments and observations have been conducted along the following lines: 1. Examination of serial sections of diseased and healthy prostates. 2. Demonstration of the presence of microorganisms in enlarged prostates which have been removed by operation. 3. Detection of the organisms in stained specimens. 4. Investigation of the cause and formation of prostatic calculi. 5. Examination of the débris expressed from the enlarged prostate during life. 6. Injection of the prostate with fusible metal. These investigations up to the present have given much evidence in favor of the septic origin of enlarged prostate. Daniel, who is working along the same lines as Herring, states that the changes producing the so called adenomata of the prostate are analogous in their origin to chronic interstitial mastitis and chronic pancreatitis. They originate from the irritation of bacteria which have gained entry along their main ducts and give rise to catarrhal inflammation in the ducts leading to desquamation of their lining epithelium. The result of accumulation of the desquamated cells and the swelling of the mucosa is that the back pressure in the gland is increased, and the inflammatory condition gradually extends along the secondary ducts into the alveoli, there giving rise to degenerative changes in the cells of the glandular spaces. The absorption of the toxines by the periglandular lymph spaces leads to chronic fibrosis in the connective tissue, and a vicious circle is established. The resulting structure shows a disorganized atypical condition of the glandular tissue, with fibrosis in the connective tissue or fibromuscular stroma. One of the important factors likely to cause persistent and increasing changes, is the constant superaddition of microorganisms to the already diseased urethra and gland ducts, thereby keeping alive and adding to the virulence of the inflammatory process.

8. **Varicose Veins.**—Kennedy discusses the remote results of operations for varicose veins of the lower extremities. He concludes that the operation which gives the best and most permanent results is that in which not only the varices are removed, but also the trunk of the internal saphena in the thigh, and thinks that the result will more certainly be permanent if this portion of the vein is very extensively resected. No doubt recurrence might develop even after this operation, on account of anastomases gradually developing from the upper end of the internal saphena which is allowed to remain, but his results have not hitherto shown a case of recurrence. No operation will radically cure varicose veins, but will only ameliorate the condition. Yet, when patients who previous to operation were unfit for any serious exertion or long standing, and who presented on their legs extensive and prominent varices, and who years after the operation, neither show any appearance of varices nor complain of any disagreeable symptoms, surely the operation is worth performing.

16. **Tubal Gestation.**—Addinsell's conclusions are as follows: 1. If the patient has rallied from the first shock of bleeding, and there is no evidence of it still going on—wait. 2. If the bleeding returns operate at once by the abdomen. 3. If the diagnosis is made of tubal pregnancy—before rupture or abortion, operate at once; but this is very difficult to

diagnosticate and is rarely done. 4. If tubal abortion or rupture is recognized and the fœtus is still living in the early weeks—operate. 5. If a hæmatocele has formed in the pelvis, it is probably shut off by adhesions from the general peritoneal cavity—wait for absorption. 6. If the hæmatocele becomes infected, open freely through the vaginal roof. The *bacillus coli communis* will usually be found to have been at work with its characteristic odor; so let your drainage be thorough.

LANCET.

October 29, 1904.

1. Some Remarks on the Application of the Principles of Surgery to the Treatment of Injury and Acute Infection when Occurring Within the Abdomen, By C. A. Ballance.
2. The Problems of Cancer, By J. Beard.
3. The Wreck of the *Australia*, By J. W. Barrett.
4. A Clinical Study of Actinomycosis, By R. Knox.
5. Dental Disease and the Medical Profession, By R. D. Pedley.
6. A Case of Ulcerative Colitis with Multiple Perforations, By A. G. Wilson.
7. A Case of Fibromyoma of the Fundus with Carcinoma of the Cervix Uteri, By J. Phillips.
8. The Problem of the Morally Defective, By W. A. Potts.
9. On Streptococcal Infection and the Use of Antistreptococcic Serum, By S. Anderson.
10. Notes of Midwifery Cases in Madagascar, By C. F. A. Moss.
11. The Evolution of Man's Diet. VI, By H. Campbell.

1. **Intraabdominal Surgery.**—Ballance tells us that in a grave intraabdominal injury the patient's safety depends upon (1) the nature and extent of the lesions; and (2) the greater or less promptitude with which operation is performed. The signs leading to a diagnosis of grave intraabdominal injury and to operation, are not and never ought to be the signs of peritonitis. No patient who has met with an accident likely to cause an intraabdominal lesion should be considered safe unless after the lapse of forty-eight hours he presents: (1) a flat and mobile abdomen; (2) a normal pulse; (3) has passed normal urine; and (4) has passed normal alvine evacuations. Four symptoms of internal abdominal injury are especially important and trustworthy. 1. Permanent and progressive feebleness and frequency of the pulse, especially if combined with pallor, a general state of anxiety, of depression, or of delirious excitement. Abdominal tenderness soon after injury or after the onset of acute symptoms may indicate hæmorrhage rather than inflammation. 2. Loss of liver dulness with progressive gaseous distension of the abdomen, or tenderness and resistance of the parietes. This indicates perforation of the gastrointestinal tract. 3. Limited dulness on percussion without distension is also produced in some cases of perforation. 4. Shifting dulness in one or both flanks as is observed in cases of ruptured bladder or large hæmorrhage. As regards appendicitis the ideal plan of treatment is to remove every diagnosticable inflamed appendix before the peritonæum is involved. Such a diagnosis can almost always be made before life is seriously endangered. The infective focus can be ablated with safety and certainty in the early stages. Permanent recovery cannot be insured without operation. The dangers of temporization in appendicitis are the risk of abscess formation, the risk of generalized peritonitis, and the risk of general septic infection. Attention is called to the value of three individual symptoms in determining the advisability of operation. (a) Incontinence of urine often occurs. (b) The absorption of toxine may mask abdominal tenderness completely. (c) The evidence obtained by digital examination of the pelvis by rectum or vagina. The ideal treatment of general peritonitis is continuous irrigation, or the continuous bath treatment so successfully employed in the acute suppurations of the joints.

4. **Actinomycosis.**—Knox reports three cases of human actinomycosis, and states that the disease is more frequent than is generally recognized. The earlier the diagnosis is made the greater the chance of a cure. Once it has been thoroughly established in the body actinomycosis is a fatal disease, especially when it affects any of the internal organs. The disease is unfortunately frequently taken for tuberculosis, especially in the early stages when the differentiation is so important and when treatment is of such great value. In all probability many cases are infected in the first instance through the alimentary system. An evening rise of temperature is not common in actinomycosis unless the disease is accompanied by suppurative changes. A suspicious symptom in any doubtful case is the appearance of swellings on any part of the body; and swellings are generally the forerunners of abscesses. An early examination of expectoration or pus is the only certain method of diagnosis. The specimens should be examined by Gram's method when the characteristic mycelium will be readily recognized. Surgical measures of treatment should be at once adopted if the lesion is superficial. Frequently, however, only partial removal is possible. Iodide of potassium appears to be a specific in early cases at least, and should be pushed rapidly to its extreme limit of dosage.

9. **Streptococcal Infection.** — Anderson reports two cases of streptococcal infection, occurring in women aged thirty-five and eighteen years, respectively, and in both of whom recovery followed the use of antistreptococcic serum. In one case the general infection was secondary to an otitis; the other was a case of puerperal sepsis. To achieve the best results in the serum treatment of streptococcal infection, the following factors seem necessary: 1. That where the infection is "single" and a polyvalent serum is obtainable possessing the "immune body," it should be applied as soon as the illness is recognized, the object being to inject before much toxine has formed. 2. That the serum should be as fresh as possible. 3. In those cases in which the serum is doing good there is no danger in administering an excess, and also in those cases where there is no apparent benefit there is no evidence to show that it does harm. 4. That since the serum acts mainly by increasing phagocytosis and since in certain cases very little antidote is formed, the administration of the serum should be continued for some time after apparent recovery until its action is quite complete.

Letter to the Editor.

THE TREATMENT OF PROLAPSUS OF THE FUNIS.

2805 West Broad Street,
Columbus, O., *October* 15, 1904.

To the Editor,

Sir: In the October 8th number of your *Journal,* page 717, appears an abstract of a paper on the above entitled subject, read before the Obstetrical Society of Philadelphia, March 3, 1904, by Dr. W. Reynolds Wilson, and its discussion by Dr. Hopkins, Dr. Hirst, Dr. Coles, and Dr. Norris, which I read with much interest.

I looked in vain to see a method mentioned which I have used successsfully, and, I believe, if resorted to early, may, and does effectually replace the prolapsed cord, namely, twisting the loop of cord upon itself, thus making a rope, and pushing it up within the cervix, effectually placing the cord beyond the danger of compression.

It is surprising with what facility the cord can be handled when twisted and replaced by the hand, and with the fingers kept above the cervix until the head descends into the pelvis.

One gentleman, in the discussion, very properly condemns the use of mechanical means, such as repositors, balls, and bags.

This method of twisting the cord upon itself I saw suggested in a short paragraph in a medical journal many years ago. I have not seen it mentioned in more than one work on obstetrics.

In a practice extending over more than half a century I have never found any other method of treating prolapsus of the funis of any special use in my hands. All others have been disappointing except this.
L. Woodruff.

Proceedings of Societies.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Meeting of Thursday, October 6, 1904.

(Concluded from page 955.)

It should be determined by actual experiment whether there was any detriment to the patient in allowing her perinæum and pelvic floor to remain unrepaired for six or eight days. Those men who had tried it said there was no disadvantage to the woman. Dr. Norris thought there would not be so many secondary operations if the average doctor did not neglect to repair these lacerations at once, and yet patients so neglected seldom had serious infection. Dr. Norris was convinced that the intermediate operation had no serious disadvantage, and with his experimental knowledge, acquired with the desire to test this question, he believed there was no disadvantage, in a clean case, in allowing the perinæum to go unrepaired for the length of time necessary to obtain good results for the repair of the cervix. As to results, he had been wonderfully surprised. One would expect that there would be failure of union, but in the cases in which he had operated this had not been the case. He believed that a man must put his theoretical objections to the practical test before his opinion had real value.

In the study of the question from the standpoint of instruction of students, and what the average practitioner should do, its practical value to them was questionable, because the average practitioner and the recent graduate were not skilled operators. If he got bad results in the primary operation, he would get bad results in the intermediate. Dr. Norris believed that he had better do the best he could with the immediate repair of the perinæum and, when the patient was convalescent, send her to a gynæcologist for reasonably early repair of the cervix. He believed that as time went on the new generation of doctors would be well prepared for clean surgical and obstetrical work, and that the intermediate operation on both the cervix and pelvic floor would gain in popularity with the profession. Among the more intelligent class of private patients appreciation of the ultimate gain to the patient would offset the natural objections on the part of herself and her family to an anæsthetic and a formal operation following so closely the anxiety of the confinement.

Dr. Hirst agreed with Dr. Norris that the question could not be decided by theorists, but only by men with large practical experience. His own experience in reference to the cervix and perinæum coincided with that of Dr. Norris. Until three years and a half ago he had believed it a bad plan to attempt very much in the way of repair, but he had happened to see Lusk's statement in regard to the repair of the cervix and one or two articles advocating primary repair, and had determined to try it. As a result of that trial, for three years and a half, in an experience comprising more than 150 cervical operations alone in the University Maternity, besides a number in other hospitals and in private practice, he was in a position to recommend the procedure. So far as the instruction of students was concerned, he believed that it was the duty of the profession to teach their students to do the best. He referred to the fact that fifty or sixty years ago the average practitioner was not able to use the forceps. An old graduate had told him that when he left the university, some fifty years ago, to settle in the country, he had taken an obstetrical forceps with him, and that an old practitioner, having a case of adherent placenta had sent for him to bring those "new-fangled instruments" and see what he could do with them. Dr. Hirst believed that in the near future the majority of physicians in general practice would do this work well or they would not do it at all. In the University Maternity they demonstrated more than fifty cervical operations every season, done usually at the end of a week, to a class of about ten men each, so that each man acted as assistant in about five cervical operations. He believed that these students ought to be prepared to do this work as it should be done. Referring to the confusion that seemed to exist as to the preference for the intermediate operation, Dr. Hirst said that he had at first thought the immediate operation was the better one and he had tried it in forty or fifty cases, but had found that there was too large a percentage of fever after the repair of the cervix immediately. While there were no serious or fatal cases of sepsis, there was a higher proportion of morbidity than should prevail in a well managed maternity. After the intermediate operation this tendency was not observable. In referring to Dr. Clark's mention of the discussion before the American Gynæcological Society, Dr. Hirst thought that the mere statement of the views of the men who took part, without any explanation, might lead one astray. It was known that those gentlemen who criticised the procedure adversely had never tried it. Taking this fact into consideration, Dr. Hirst thought one could better judge of the value of some of the remarks that were made. He believed that Dr. Dickinson was right in many particulars, but wrong in one, if Dr. Clark quoted him correctly, when he said that if the perinæum must be repaired, the cervix also should be immediately repaired. Dr. Hirst stated that there was no harm whatever in letting the perinæum go to the end of a week. The man who said that because the perinæum ought to be repaired early the cervix ought to be also was wrong. Such an opinion was not based on correct observation, and perhaps not on sufficient clinical material.

Dr. DAVIS said that he had not noticed the absorption of No. 10 catgut alluded to by Dr. Montgomery in puerperal cases. He was not positively certain, but it seemed to him that the reaction of the lochial discharge was not the same as that in the vagina of a woman not parturient.

He had had some experience and much interest in one aspect of the question of the repair of the cervix, that was in the immediate repair of the cervix, and by "immediate" he meant within an hour after the expulsion of the child, not immediate in the sense of within twelve or twenty-four hours. In a certain class of cases the results had been satisfactory. The cases were watched through the entire labor and the tissues were not allowed to become nodular, œdematous, or bruised. When delivery occurred, frequently under forceps, the entire genital tract up to the internal os was inspected for lacerations. If lacerations of the cervix were found, more than one quarter of an inch, they were closed; so were lacerations of the pelvic floor and perinæum. He had seen no fever following this style of procedure. He had seen a considerable number of very satisfactory unions in the cervix, and, of course, a very high percentage of union in the pelvic floor and perinæum. Those cases were in good hands, and the operation was practically immediate. The so called intermediate, or five or seven day, operation was on trial. When that was proved to be a successful procedure he would be glad to follow it. He saw no reason why it should not be successful in many cases, but the matter came down, especially to his mind, to this: Was obstetrics to be done as a makeshift, a disagreeable necessity, by the practitioner, to eke out his living; or was it to be a surgical specialty? A large number of cases would fall into all sorts of unskillful hands, and in such hands the less interference the better; but if obstetrics was to take the place of a surgical specialty, then the students would develop an individual aptitude for practice, and some would take up medical work, others would do surgical work, and those students would be competent to perform operations on the genital tract, whether within an hour, in ten or twelve days, or in two or three weeks, and the work would go to those men. It ought to go to them, and the sooner the better.

MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

Fifty-fourth Annual Meeting, held in Pittsburgh on Monday, Tuesday, and Wednesday, September 26, 27, and 28, 1904.

(*Continued from page 761.*)

Röntgen Rays and Radium Therapy was the title of a paper read by Dr. MIHRAN K. KASSABIAN, of Philadelphia, in which he stated that after conducting a series of experiments at the Philadelphia Hospital to determine the comparative value of the two agents, in some cases using them on different parts of the same growth, he had discovered that the radium produced little or no effect, and he had therefore discarded it for the Röntgen rays. Epithelioma, he stated, furnished the most satisfactory cases; and in carcinomata it was recommended that an operation precede the application of the rays. Twenty cases of chronic senile leg ulcer, some of which had entirely healed and all improved, were reported, and fifteen epileptic cases were reported from the insane department of the Philadelphia Hospital in which the frequency and severity of the attacks had lessened under the Röntgen ray treatment.

The Treatment of Malignant Diseases of the Breast was the title of a paper read by Dr. CHARLES LESTER LEONARD, of Philadelphia, in which he stated: (1) Our knowledge of the ætiology and pathology of the disease is very limited; (2) the natural benignity of atrophic scirrhus is apparently explained by certain pathological changes that show an attempt by nature to retard the progress of the disease; (3) the results produced by Röntgen ray treatment are practically identical with this natural process, but are more complete, showing a power over the malignant cells themselves; (4) conservative surgery tends towards a non-operative treatment of hard cancers (atrophic scirrhus) and their treatment by x rays; (5) early radical removal by surgical operations is indicated in all other primary growths, recurrences to be followed by early Röntgen ray treatment, the value of which, however, depends upon the skill and experience of the operator.

The Inhibitory Action of the X Ray Upon Malignant Growths.—A paper thus entitled was read by Dr. GEORGE C. JOHNSON, of Pittsburgh, in which he stated: The radiation from an excited Crookes's tube is capable, when properly applied, of inhibiting malignant growths; such inhibition is dependent upon the skill and experience of the operator, and may be so complete and permanent as to produce a clinical cure. It may be applied as a palliative remedy in "inoperable" cases, and in cases unfit for operation it may be used as a tonic treatment. It is also of great value as a postoperative measure, but its employment should be confined to the hands of competent physicians and surgeons experienced therein.

Tuberculous Adenitis Treated by the X Ray was the subject of a paper read by Dr. GEORGE E. PFAHLER, of Philadelphia, who believed this method offered the best cosmetic results, that the danger of secondary involvement or dissemination was lessened thereby, and that the operation should be done as early as possible. Suppurating glands should be incised and drained and then subjected at once to x ray treatment.

The Postoperative Treatment of Malignant Disease.—Dr. R. W. STEWART, of Pittsburgh, read a paper in which he referred to the impossibility of being sure that every portion of a malignant growth had been removed, and stated that if there was any treatment which would prevent the further formation of the growth, it should be used as a postoperative remedy in every case. He felt that the value of the x rays in inhibiting the growth had been sufficiently proved to warrant their application after the removal of malignant tissue, and that the best results would be obtained under these conditions rather than by their primary application.

Dr. MORDECAI PRICE, of Philadelphia, referred to a case of scirrhus of the breast treated for eight or nine months prior to the removal of the growth with the x ray, during which time it did not increase in size; after the removal the treatment was resumed, and was still continued at the end of eight or nine months. There was now no pain and it had not recurred.

Dr. WILLIAM L. ESTES, of South Bethlehem, while recognizing the value of the x rays as a palliative and postoperative measure, recommended the removal of the tumor in all "operable" cases, and also commented on the fact that, while relieving the pain, the rays seemed to have very little curative influence on sarcoma.

Dr. ERNEST LAPLACE, of Philadelphia, felt that the best results in malignant disease would be secured by removal and postoperative treatment by the x ray. He also referred to the deleterious effects when the rays were not able to penetrate to the seat of the lesion.

Dr. JOSEPH PRICE, of Philadelphia, did not believe cases of malignant disease could be cured, but felt that the liability of recurrence was always present. He did believe, however, the x rays were of great value for postoperative treatment and also for the relief of the patient's suffering in "inoperable" cases.

Dr. J. C. O'DAY, of Oil City, felt that sufficient time had not elapsed for cases to be reported as cures, and doubtless many of those which were looked upon as such now would in the course of a few years show recurrence. He also directed attention to the fact that malignant disease was usually caused by irritation and to the advantages of prophylactic measures in this direction.

Dr. BOGGS felt that the effect of the rays upon the deep seated growths was largely influenced by the technique employed.

Dr. KASSABIAN referred to the value of a lead shield for protecting healthy tissue and preventing dermatitis, and also reported a case of cancer of the uterus which he had successfully treated.

Dr. LEONARD believed that the best results were secured by early removal and postoperative treatment with the x rays, except in cases of atrophic scirrhus and sarcoma, in which conditions he felt the removal was contraindicated.

Dr. JOHNSON felt that the action of the x rays was rather an inhibition than a cure, and emphasized the importance of early removal and postoperative treatment, particular stress being laid upon the importance of the employment of the rays by an expert operator.

Dr. STEWART felt that it was a mistake to say that the cases could not be cured, as the condition was easy to diagnosticate, and as, even although the condition should appear after a lapse of, say, twenty-five years, it should be looked upon as a new growth rather than a recurrence.

Dr. PFAHLER thought that the degree of penetration could be regulated by the distance of the tube, and did not believe in covering up the parts of the body not affected, owing to the danger of protecting an undiscovered infected area.

The Care of Fractures from the Standpoint of the General Practitioner was the title of a paper read by Dr. WILLIAM S. NEWCOMET, of Philadelphia, in which he emphasized the value of an x ray examination in all cases, citing two cases of fracture of the femur and three of dislocation of the shoulder which had been undiscovered at the time. Green stick fractures were frequently unrecognized, but the most troublesome cases were those in which a small portion of the bone was chipped off about a joint.

Dr. LEVI J. HAMMOND, of Philadelphia, referred to the value of x rays as a means of diagnosis between fractures, dislocations, sprains, etc., citing a case illustrative thereof.

Dr. GEORGE F. PFAHLER commented upon their value in the diagnosis of fracture of the head of the radius.

Dr. RUSSELL H. BOGGS, of Pittsburgh, referred to the case of a ball pitcher who, in throwing the ball, chipped off a small piece of the bone, which was treated as one of sprain until the correct diagnosis was established by means of the x ray.

Dr. KASSABIAN directed attention to the importance of the position of the tube in diagnosticating fractures, as if the days did not pass through the space between the parts the fractures would not be seen.

Knee Ankylosis.—A paper on this subject was read by Dr. DE FOREST WILLARD, of Philadelphia, in which he stated that knee ankylosis was the result of disease, not a disease in itself. Many entirely different pathological conditions led to either partial or complete fixation of the joint. A traumatic or other synovitis followed by slight effusion, a slipping cartilage, a septic or gonorrhœal infection, a tuberculous disease, any of these conditions might be the primary cause. The discovery of the cause was all important. The treatment to be pursued after the joint had become fixed must depend, first, upon the cause, next, on present joint conditions as discovered by careful clinical examination aided by x rays. A sensitive joint following injury, with or without effusion, might become apparently firmly fixed after primary rest, yet there came a time when such a joint needed motion, both passive and active, otherwise the patient would long remain a cripple. Ankylosis following gonorrhœal infection, when the joint had not been primarily drained, should be treated by forcible manipulations under anæsthesia, followed by passive and active movements of the joint. A fixed joint following septic infection would as a rule remain permanently ankylosed; such a limb could be best straightened by osteotomy at the lower end of the femur. In ankylosis following tuberculous disease, when there had been no suppuration, it was unwise to awaken activity in the infected area; an osteotomy of the femur was less dangerous. In ankylosis with suppuration erasion or excision should be done. Excision or erasion was better than amputation in children. The accidents most likely to result from forcible straightening by the hands were fracture, posterior dislocation, and aneurysm.

(*To be continued.*)

Book Notices.

Saunders's Question Compends. Essentials of Nervous Diseases and Insanity. Their Symptoms and Treatment. By John C. Shaw, M. D., Late Clinical Professor of Diseases of the Mind and Nervous System, Long Island College Hospital Medical School. Fourth Edition, Thoroughly Revised by Smith Ely Jelliffe, M. D., Ph. D., Clinical Assistant, Columbia University, Department of Neurology. Philadelphia, New York, London: W. B. Saunders & Co., 1904. Pp. 196. (Cloth, $1.00 net.)

This little book, long favorably known, has become, by this last revision by Dr. Jelliffe, easily first of books of its kind on this subject. It is clear, accurate, remarkably complete, considering the number of its pages, well arranged and thoroughly up to date.

Essentials of Materia Medica and Prescription Writing. By Henry Morris, M. D., College of Physicians, Philadelphia. Sixth Edition, thoroughly revised, by W. A. Bastedo, Ph. G., M. D., Tutor of Materia Medica and Pharmacology at the Columbia University (College of Physicians and Surgeons), New York. Philadelphia, New York, London: W. B. Saunders & Co., 1904. Pp. 295. (Cloth, $1.00.)

The sixth edition of this compend retains the original classification and arrangement of the first edition, though the editor has in part rewritten the sections on alcohol, antipyrine, carbolic acid, formaldehyde, iodoform, mercury, and veratrum, and questions on adrenalin, stypticin, and the iodine and silver synthetics have been introduced. The reviser seems to have realized his aim to conform the teaching to recent usage.

BOOK AND MAGAZINE NOTES.

The December *Delineator,* with its message of good cheer and helpfulness, will be welcomed by the wives and children of physicians. The fashion pages are unusually attractive, illustrating and describing the very latest modes in a way to make their construction during the busy festive season a pleasure instead of a task, and the literary and pictorial features are of rare excellence. A selection of Love Songs from the Wagner Operas, rendered into English by Richard le Gallienne and beautifully illustrated in colors by J. C. Leyendecker, occupies a prominent place, and a chapter in the Composers' Series, relating the Romance of Wagner and Cosima, is an interesting supplement to the lyrics. A very clever paper entitled The Court Circles of the Republic, describing some unique phases of Washington social life, is from an unnamed contributor. There are short stories from the pens of F. Hopkinson Smith, Robert Grant, Alice Brown, Mary Stewart Cutting, and Elmore Elliott Peake, and such interesting writers as Julia Magruder, L. Frank Baum, and Grace MacGowan Cooke hold the attention of the children. Many Christmas suggestions are given in needlework and the cookery pages are redolent of the Christmas feast. In addition, there are the regular departments of the magazine, with many special articles on topics relating to woman's interests within and without the home.

Beginning in the December issue of *The Century* are Ambassador White's reminiscences of his mission to Germany from 1897 to 1902, one of the most notable series of memoirs recently published.. During 1905 Charles F. Brush will write of the invention and present status of The Arc Light; George Westinghouse, of The Air Brake; Nikola Tesla, of The Transmission of Power; Frank J. Sprague, of Electric Traction. Melville E. Stone, manager of that great organization, the Associated Press, will describe its origin and methods, its collection and distribution of news, its operation in Europe, and its service in war time. There will be articles of general scientific interest and importance from Professor Henry Fairfield Osborn, Gilbert H. Grosvenor, Professor Russell H. Chittenden, Frank N. Chapman, and Helen Keller. American architecture will be treated at length, special papers covering The New Naval Academy, The New Custom House in New York, The New Congressional Buildings, The Capitol Extension, The New National Museum, and The New York Public Library. Another feature of the year will be a series of papers telling of historic homes in France, with illustrations by Jules Guérin and André Castaigne. And it is promised that the East and its interests, that field to which all eyes are turning to-day, will be treated in a number of valuable and important articles. The art features of *The Century* have always been of notable beauty; 1905 will advance the standard.

Under the title of The Health Drifters of the Great Southwest, Frank D. Witherbee writes in the current issues of *Charities,* New York, of the great migration of tuberculosis patients to the Salt River Valley of Arizona, and of the life they lead in tents and shacks in and about Phœnix. Out of a winter population of some 15,000, fully 5,000 are health seekers, drawn to Arizona by the dry climate and constant succession of sunny days, which are essential for their relief and cure. Fully 90 per cent. of the days in Phœnix are clear and bright, and the relative humidity of the atmosphere is far below the average.

"On the one hand, these conditions lead to a remarkable percentage of recoveries," writes Mr. Witherbee, "but on the other there is an amount of social and spiritual suffering which is not generally understood. As a matter of fact, a great majority of people go too late to be helped by any power on earth. A Phœnix physician has said that fully four fifths of the visitors are incurable. The streets are filled with them, thin and wretched, homesick and suffering.

"Heedless physicians and relatives send patients to Phœnix, alone, and with scant means of support. The blundering argument is made that all the sick one needs is to get to that country and his condition will permit of his doing light work which he can easily find. But the facts are that this incapacitated one is going to a country swarming with people looking for like chances; that it is essentially a ranching community, where the bulk of the workers to be of any service must be able to plow, and sow, and reap, and herd cattle, often standing in water all night long to irrigate. What few chances there are for light work ought not to be accepted, because they are too confining. Here, as wherever consumptives have taken up work in desirable climates, they have by their underbidding and their numbers steadily forced wages down to a point where they can scarcely earn enough to live. Many of the necessities of life by reason of high freight rates are much more costly than in other communities.

"'Out on the desert, at the outskirts of the irrigated parts of the valley, and extending to the foot hills, there are tents of all sizes and descriptions; some are in groups and others stand alone, some are roomy and attractive, others are cramped and desolate looking. Some of the ranchers near Phœnix have made a specialty of providing accommodations for health seekers, and offer furnished tents or rooms in specially constructed houses with board at the ranch house.

"The local fraternal lodges, the churches, the county almshouse, and the one free sanatorium, are crowded to their utmost capacity year in and year out. Many a patient reaches Phœnix with his small capital exhausted by traveling expenses, and finds himself dependent upon the resources of a community which has no interest in him, and where he finds on many sides an almost hardened indifference to his pitiable need. This is not because residents of Phœnix are lacking in the finer feelings which prompt charitable service, but because the people of the East and Middle West are, by their lack of forethought, putting upon them a burden which in no sense belongs to them. The supervisors say that the poor in the almshouse cost the county $20,000 a year, and three quarters of this is spent in the care of ailing consumptives."

BOOKS, PAMPHLETS, ETC., RECEIVED.

General Catalogue of Medical Books. Pp. 109. Philadelphia: P. Blakiston's Son & Co. [25 cents.]

Beiträge zur Behandlung putrider Zahnwurzeln unter spezieller Berücksichtigung der Anwendung schwacher galvanischer Ströme (Elektrosterilisation). Von Fr. E. Zierler, an der kais. russ. Universität Dorpat appr. Zahnarzt, ehem Assistent am zahnärztl. Institut und Klinik für Zahn und Mundkrankheiten in Warschau. Pp. 53. Würzburg, 1905: A. Stuber (C. Kabitzsch).

Outlines of Physiological Chemistry. By S. P. Beebe, Ph. D., Physiological Chemist to the Huntington Fund for Cancer Research, and B. H. Buxton, M. D., Professor of Experimental Pathology, Cornell Medical College. Pp. vii-195. New York, 1904: The Macmillan Company. London, 1904: Macmillan & Co., Ltd. [$1.50.]

Multiple Personality. An Experimental Investigation Into the Nature of Human Individuality. By Boris Sidis, A. M., Ph. D. (Harvard); Author of the Phychology of Suggestion and Psychopathological Researches, and Simon P. Goodhart, Ph. B. (Yale, M. D.). Pp. x-456. New York, 1905: D. Appleton & Co.

The Art of Compounding. A Textbook for Students and a Reference Book for Pharmacists at the Prescription Counter. By Wilbur L. Scoville, Ph. G., Formerly Professor of Theory and Practice of Pharmacy in the Massachusetts College of Pharmacy; Member of the Committee of Revision of the United States Pharmacopœia. Third Edition, Revised and Enlarged. Pp. 339. Philadelphia, 1904: P. Blakiston's Son & Co. [$2.50 net.]

A Textbook of Practical Therapeutics. With Especial Reference to the Application of Remedial Measures to Disease and Their Employment Upon a Rational Basis. By Hobart Amory Hare, M. D., B. Sc., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia; Physician to the Jefferson Medical College Hospital, etc. Tenth Edition, Enlarged, Thoroughly Revised and Largely Rewritten. Pp. 908, Illustrated with 113 Engravings and 4 Colored Plates. Philadelphia and New York, 1904: Lea Brothers & Co.

Surgical Emergencies. The Surgery of the Abdomen. Part I. Appendicitis and Other Diseases About the Appendix. By Bayard Holmes, B. S., M. D., Professor of Surgery in the University of Illinois, Professor of Clinical Surgery in the American Medical Missionary College, Chicago, etc. Pp. xvi-350. New York, 1904: D. Appleton & Co.

Blakiston's Quiz Compends. A Compend of Medical Latin. Designed Expressly for Elementary Training of Medical Students. By W. T. St. Clair, A. M., Professor of the Latin Language and Literature in the Male High School of Louisville, Ky.; Author of *Cæsar for Beginners*, etc. Second Edition Revised. Pp. 131. Philadelphia, 1904: P. Blakiston's Son & Co. [$1.00 net.]

Miscellany.

The Three Plagues of the Twentieth Century.—We certainly do not wish, says *The St. Louis Medical and Surgical Journal*, for November, 1904, to imply either that there are but three plagues in the twentieth century or that the three of which we shall speak are peculiar to this century. What we do maintain is that these three plagues have become better known, their dangers more fully appreciated, and the impotence of the medical art in their treatment more thoroughly demonstrated than at any previous period in medical history. The three great plagues to which we desire to call attention are syphilis, leprosy, and tuberculosis. It may be said with confidence that all three of these diseases may boast of a great antiquity, notwithstanding the arguments made by some writers that the great antiquity of some is not absolutely proved. We do not propose here to enter into any literary critique of this moot question to which entire volumes have been devoted. So that the real subject of interest to us is that which will be taken up here.

To begin with, these three diseases are disseminated throughout the world and affect individuals in all climates and irrespective of age, sex, or condition or color. They are really plagues from the fact that they are neither limited nor sporadic. They are disseminated and to a certain degree epidemic. They are all essentially chronic diseases, and whilst two have been proven to be of bacterial origin there is but little doubt that the third one is also of the same nature. All three are of a nature that is destructive in its processes and in the development of each every tissue of the human organism is attacked from the epidermal structures to the deep nerve centres of the cord and brain. All three may be improved by treatment, but a radical cure in any one has not yet been discovered.

There is one certainty, however, which is that the diseases under consideration have not been made to disappear and but little success has attended the efforts which have been made to reduce the increase in them. In other words, the repression of these diseases has not been accomplished, much less their suppression. Methods which are susceptible of application have not yet been devised although the best efforts of the most advanced thinkers of the century are being devoted to the problem. These are not individual efforts but rather the concerted action of active workers in these fields. Thus we have the various European societies for the suppression of vice and venereal disease, the International Congress for the Regulation and Suppression of Prostitution, all having for their prime object the diminution of cases and final disappearance of syphilis as it now occurs in the world. Then we have the International Congress on Leprosy, whose real object is the prevention of the spread of this plague which has existed in the Far East time immemorial and in Europe. Tuberculosis has also been the object of the attention of the International Congress on Tuberculosis which held its last meeting in St. Louis early in October, 1904, but although the meetings of these societies and congresses have added much to our knowledge of the subjects with which they have been concerned, no results of a satisfactory nature have been obtained. There seems to be something wanting, something perhaps of a practical nature as opposed to the great mass of theory and of speculation with which we have been flooded. For instance, among other things, we do not care so much to hear about the treatment of the different members of the great triad of diseases. What we really wish to know is how to cure them. When we arrive to this knowledge it is safe to assert that these three plagues will no more exist; but until cures are found efforts made to limit or to suppress them will always prove more or less abortive. Scientists, investigators, experimentors and all those engaged in serious research work and investigations will find a rich and still unworked field open to them in the domains of syphilis, leprosy, and tuberculosis. May the day be hastened when the road to the discovery of a cure of any one of these shall be pointed out by a medical Columbus.

Safeguarding Crime.—The *Maryland Medical Journal,* for November, 1904, says on this subject: In our editorial pages a few months ago attention was called to a very dangerous law, enacted by the general assembly of 1904, providing that the resident or attending physician of any institution might, on application to the county commissioners, be appointed a subregistrar of vital statistics, with the authority to grant permits for the burial of persons dying in such institutions. Several dangers were pointed out as inseparable from this investiture of one man with the right to attend the sick, to make death certificates, and to authorize the final disposition of the dead. It was pointed out that such an arrangement would probably be regarded by the thoughtful and honest physician as too compromising, and by the dishonest or criminal as a convenient aid in the concealment of crime. Only two institutional physicians have accepted such appointments, and so far nothing has happened to make them regret the exercise of such dangerous authority.

We called especial attention in the former editorial to the protection which this law would afford to criminal practice in the vicinity of Baltimore and Washington. An instance has recently come to light of a crime which, if the provisions of this new law had been available, would never have been unearthed.

A young woman of Washington, being pregnant, entered a small sanitarium situated in a Maryland village near the District line for the purpose of procuring an abortion. She died a few days later as a result of the criminal operation. The cause assigned by the physician in his certificate of death was endocarditis. His certificate was presented to the local subregistrar, and the case came to the attention of the State's attorney. No evidence against the physician was discovered, however, and the body was released for removal to Washington and from thence to Ohio for burial. Later investigation appeared to warrant the arrest of the physician, and he is now on trial in the Circuit Court of Prince George county.

At the present time a physician running such a "sanitarium" in the Maryland suburbs of Washington may ask the county commissioners to appoint him a subregistrar of vital statistics. Receiving such an appointment, he may use the authority of the State of Maryland to hide any homicide committed upon his premises.

The chances of punishment for criminal abortion are absolutely limited to the cases resulting fatally. Give the abortionist the right to dispose of dead bodies in the name and authority of the State and practically every adverse chance is eliminated from the practice of criminal abortion.

In many years past Maryland justice has overtaken but one of the many men who ply this hideous trade. And that one, after a long career, the most notorious and dangerous of them all, has succeeded in bringing respectable influence to bear upon His Excellency the Governor, so that we may lose through executive clemency the small weight of criminal liability which is supposed to make fœticide more hazardous than the legitimate practice of medicine.

Night Medical Schools.—The *Chicago Clinic* for October has this to say in defense of the Sundown medical school: There is ample reason for constant watchfulness that medical education become higher rather than lower. The commercial spirit of the times is in perfect accord with ingenious devices whereby the time of study is abbreviated and medical knowledge is handed out in predigested, sugar coated form. There is constant danger from the mushroom institutions of the quiz compend grade of medical education. The standard of medical education tends naturally downward. Its elevation is accomplished only by constant labor and effort. Battling, as we have been, with every form of diploma mill and inadequate medical college, we naturally looked with considerable concern and question upon those institutions which opened up to give to the tired clerk or laborer a medical education by gaslight. The first of these institutions needed the watching. On the face of it the night medical school stood for predigested medical information, given in small doses in a short space of time, with a medical standard as few degrees above the passing mark of a State board of health or State examining board as was safe to insure passing—a standard, incidentally, upon which a very large number of our day medical schools are conducted. Night schools, however, have improved. Excellent men have joined the faculties of some of these institutions; the equipment has been brought up to an excellent place, and further, and more important, they have begun to turn out men who are making names and places for themselves in the medical world. Theoretically, the man who is endeavoring to secure a medical education should devote himself to that entirely. Theoretically, a man after a hard day's labor is in no condition to take a number of heavy medical lectures. Theoretically, these institutions are not to be commended. On the other hand, all infants have not emerged upon this earth with gold spoons in their mouths. All young men are not independent. Many of these men have to work by day to study by night. Some of these men desire medical educations. They want medical education and they are willing to pay for it with the sweat of the brow and to burn midnight oil in addition. These are the enthusiastic young men who amount to something in the profession. An inquiry directed to a director of the Young Men's Christian Association, asking the number of young men who, to his knowledge, were taking professional or technical instructions at night, elicited the fact that there are more than in a number of our largest universities put together. These men *must* work by day; they *may* study by night. Medical examining boards are the authority for the statement that the candidates for licenses from the better night schools do as well as the candidates from some of the best day schools; that the candidates from the second grade night schools do no worse than those from the second grade day schools. In the day when a high grade of medical education is actually demanded in America, night schools will undoubtedly be compelled to give longer courses than day schools to accomplish the work. At present night schools with competent instructors and good equipment are averaging well with other medical schools.

Foreign Bodies in the Heart.—According to the *Medical Press and Circular,* a remarkable demonstration of the tolerance of the heart for foreign bodies was recently afforded in the Parish hospitals, the "subject" being a young man who had attempted suicide by means of a pistol. The bullet penetrated the thorax, and on admission to the hospital the patient was in a state of profound collapse with symptoms of effusion into the pericardium. This ultimately underwent absorption, and there remained only some abnormal sounds, the precise origin of which could not be determined. He was allowed to go home, but forthwith developed grave symptoms of cardiac irritation, which brought him back to the hospital, where the thorax was skiagraphed and the bullet seen to be lying loose in the ventricle. After consultation, it was decided that the patient's only chance was to remain in the recumbent position until the projectile had become encysted, a process which required several months. He was recently discharged, apparently in good health, and since leaving the hospital he has resumed his usual avocation without giving rise to any further symptom of cardiac trouble. The interest of the case lies, of course, in the prognosis, and unfortunately data are wanting upon which to base a trustworthy forecast, but we may hope that the patient will be kept under observation in order that this unusually interesting observation may be completed in respect of the subsequent history.

Overlying of Infants.—Though all medical men in practice among the poor are frequently brought into contact with cases of overlain infants, it is doubtful if many are fully aware of the enormous mortality from this cause. *Medical Press and Circular,* which does not say "overlaying," as is usual with its English contemporaries, states, in its issue for October 19, 1904, that in London especially, the number of children killed in this way is so alarming that it can best be realized by stating that the number of deaths from suffocation in bed during the past ten years is equal to that from typhoid fever, being little under two thousand each year. When it is remembered that these children are as likely as not to be quite healthy, one can gauge to some extent the loss the nation is sustaining. In most cases, too, it is probable that the deaths are the result of pure accident, though in some drunkenness in the mother may be the principal cause. It is noticed that the greatest number of deaths from this cause occur on Saturday nights, when there is most probably a greater indulgence in drink than on other evenings of the week. On the other hand, Saturday is the busiest day of the week for most wives of workingmen, so that they are inclined, although perfectly sober and temperate, to sleep most soundly on that night. Much good might be done in the way of prevention by the visitation of mothers by tactful female visitors, who should advise the use of cots for young infants, and should dissuade from suckling in bed. Instruction on the subject might also be given to the girls in board schools, who should certainly receive regular teaching on the care of infants.

Official News.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the week ending November 11, 1904:

Smallpox—United States.

Place.	Date.	Cases.	Deaths.
Illinois—Chicago	Oct. 30-Nov. 5	28	2
Illinois—East St. Louis	Aug. 15-Oct. 20	200	25
Louisiana—New Orleans	Oct. 30-Nov. 5	1	
Michigan—At 50 places	Oct. 30-Nov. 5	Present.	
Michigan—Detroit	Oct. 30-Nov. 5	1	
Minnesota—Hennepin County	Oct. 25-31	8	
Minnesota—Todd County	Oct. 25-31	1	
Missouri—St. Louis	Nov. 1-7	7	1
New York—New York	Oct. 30-Nov. 5	2	
Ohio—Canton	Oct. 16-22	3	
Ohio—Toledo	Oct. 23-29	1	
Pennsylvania—Philadelphia	Oct. 30-Nov. 5	2	
Wisconsin—Milwaukee	Oct. 30-Nov. 5	22	
Cholera.			
India—Bombay	Oct. 5-11		7
India—Madras	Oct. 2-8		6
Russian Empire—Saratov Province, Saratov	Sept. 27-Oct. 7	18	9
Russian Empire—Trans-Caspian District	Sept. 25-Oct. 2	11	5
Russian Empire — Trans-Caucasia, Baku	Sept. 28-Oct. 11	191	114
Turkey—Turkey	Sept. 27-Oct. 3	233	160
Yellow Fever.			
Brazil—Rio de Janeiro	Oct. 3-9	1	
Cuba—Habana	Oct. 26	1 case from Am. Ss. *Havana* from Mexico.	
Mexico—Texistepec	Oct. 23-29	47	12
Mexico—Merida	Oct. 23-29	1	
Plague.			
Africa—Port Elizabeth	Oct. 2-8	1	
Australia—Brisbane	Sept. 10-24	1	1
Australia—Perth	Sept. 5-24	4	1
Australia—Sydney	Sept. 12-26	2	2
Brazil—Rio de Janeiro	Oct. 3-9	43	15
Egypt—Alexandria	Oct. 1-7	4	2
Egypt—Port Said	Oct. 1-7		1
Formosa	Sept. 1-30	4	3
India—Bombay	Oct. 5-11		71
India—Karachi	Oct. 3-9	12	13
India—Madras	Oct. 1-7	1	
Peru—Arica	Oct. 1	Present.	
Peru—Callao	Sept. 25-Oct. 1	1	
Peru—Eten	Oct. 1	Present.	
Peru—Lima	Sept. 25-Oct. 1	11	
Peru—Pacasmayo	Oct. 1	Present.	
Straits Settlements—Singapore	Sept. 22-28		2
Smallpox—Foreign.			
Austria-Hungary—Prague	Oct. 16-22	4	
Brazil—Pernambuco	Sept. 30-Oct. 13		43
Brazil—Rio de Janeiro	Oct. 3-9	236	115
France—Paris	Oct. 16-22	7	1
Great Britain—Bradford	Oct. 9-22	4	
Great Britain—Manchester	Oct. 16-22	3	
Gt. Britain—Newcastle-on-Tyne	Oct. 16-22	17	2
Great Britain—Nottingham	Oct. 16-22	6	1
India—Madras	Oct. 2-8		1
Italy—Catania	Oct. 21-27		1
Italy—Palermo	Oct. 16-22	1	5
Russia—Moscow	Oct. 23-29	4	
Russia—St. Petersburg	Oct. 19-25	5	1
Russia—Warsaw	Oct. 20-26		19
Turkey—Constantinople	Oct. 17-23		10
West Indies—Barbados	Oct. 25	2 cases on Br. Bkt. *Ensenada,* from Rosario.	

Public Health and Marine Hospital Service:

List of Changes of Stations and Duties of Commissioned and Non-Commissioned Officers of the Public Health and Marine Hospital Service for the seven days ending November 9, 1904:

ANDERSON, J. F., Passed Assistant Surgeon. Granted leave of absence for seven days from November 9, 1904, under paragraph 191 of the regulations.

BILLINGS, W. C., Passed Assistant Surgeon. To proceed to St. John, N. B., for exclusive duty in connection with inspection of aliens. November 7, 1904.

BLUE, RUPERT, Passed Assistant Surgeon. Detailed to represent Service at convention of League of California Municipalities at Santa Ana, Cal., November 16th to 18th.

CLARK, TALIAFERRO, Passed Assistant Surgeon. Upon being relieved at Baltimore, Md., by Assistant Surgeon J. W. Schereschewsky, to rejoin station at Philadelphia, Pa., November 2, 1904.

KALLOCH, P. C., Surgeon. Granted leave of absence for two days from November 5th.

McCLINTIC, T. B., Passed Assistant Surgeon. Granted extension of leave of absence for twenty-three days from November 7th.

MILLER, CHARLES, Pharmacist. Granted leave of absence for fourteen days from November 10th.

ROEHRIG, A. M., Pharmacist. Department letter of September 1, 1904, granting Pharmacist Roehrig leave of absence for thirty days, amended to read twenty-five days from September 12th.

SAFFORD, M. V., Acting Assistant Surgeon. Granted leave of absence, on account of sickness, for four days from October 21st.

SCHERESCHEWSKY, J. W., Assistant Surgeon. Upon completion of examination to determine fitness for promotion to the grade of passed assistant surgeon, relieved from duty at the Immigration Depot, New York, N. Y., and directed to proceed to Baltimore, Md., for exclusive duty in connection with the inspection of aliens. November 2, 1904.

WILLIAMS, L. L., Assistant Surgeon General. Granted leave of absence for eight days from November 7th.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending November 12, 1904:

BROWN, E. M., Assistant Surgeon. Detached from the *New York* and ordered to the *Chicago*.

FURLONG, F. M., Passed Assistant Surgeon. Detached from the *Chicago* and ordered to the *New York*.

LEWIS, D. O., Medical Inspector. Detached from the *New York* and ordered to the *Chicago*.

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending November 12, 1904:

METCALFE, R. F., First Lieutenant and Assistant Surgeon. Sick leave of absence extended thirty days.

OWEN, WILLIAM O., Major and Surgeon. Granted thirty days' leave of absence from November 2, 1904.

PHILLIPS, JOHN L., Major and Surgeon. Ordered to take charge of the office of the chief surgeon, Department of the East, during the absence of Colonel Valery Havard, Chief Surgeon.

RAYMOND, THOMAS U., Major and Surgeon. Relieved from duty at the Louisiana Purchase Exposition, St. Louis, and ordered to Fort Assiniboine, Mont., for duty.

RUTHERFORD, HENRY H., First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Mackenzie, Wyo., and ordered to the United States Army General Hospital, Presidio of San Francisco, Cal.

SWEAZEY, VERGE E., First Lieutenant and Assistant Surgeon. Relieved from duty at the United States Army General Hospital, San Francisco, Cal., and ordered to Fort Mackenzie, Wyo., for duty.

WILLIAMSON, L. P., First Lieutenant and Assistant Surgeon. Leave of absence extended fifteen days.

Births, Marriages, and Deaths.

Married.

BARTLETT—BARRETT.—In Philadelphia, Pennsylvania, on Saturday, November 5th, Mr. Frederick W. Bartlett and Miss May Louise Barrett, daughter of Dr. Albert R. Barrett.

CAMPBELL—KNOX.—In Weston, Massachusetts, on Monday, November 7th, Dr. Francis E. Campbell, United States Navy, and Miss Elizabeth Baxter Knox.

DUNNING—NITTINGER.—In Philadelphia, Pennsylvania, on Wednesday, November 9th, Dr. T. Snively Dunning and Miss Elizabeth Christina Nittinger.

FOX—GASKILL.—In Philadelphia, Pennsylvania, on Wednesday, November 9th, Dr. Herbert Fox and Miss Emma Louise Gaskill.

GOULD—WILLIAMS.—In New York, on Thursday, November 10th, Dr. Everett W. Gould and Miss Alice E. Williams.

HOPKINS.—GIBSON.—In Flushing, Long Island, on Wednesday, November 9th, Dr. Alfred Francis Hopkins and Miss Annie de Wolf Gibson.

IVES—MOORHEAD.—In Washington, D. C., on Monday, November 7th, Dr. Franklin B. Ives and Mrs. Jennie H. Moorhead.

JAMES—MATHEWS.—In St. Louis, Missouri, on Wednesday, November 2nd, Dr. John A. James James and Miss Virginia Mathews.

PEASE—MOHLER.—In Washington, D. C., on Saturday, November 12th, Dr. Edward Allen Pease and Miss Margaret Caldwell Mohler.

SELDEN—FLANDERS.—In Macon, Georgia, on Wednesday, November 2nd, Dr. John Selden and Miss Lucile Flanders.

STEINHART—GANS.—In Philadelphia, Pennsylvania, on Wednesday, November 9th, Dr. Louis Steinhart and Miss Josephine Gans.

Died.

BROOKS.—In Chicago, Illinois, on Wednesday, November 2nd, Dr. Franklin Brooks, in the eighty-first year of his age.

COLLINS.—In Victor, Colorado, on Monday, October 31st, Dr. J. Wallace Collins.

DETRICK.—In Washington, D. C., on Monday, November 7th, Dr. Reuben B. Detrick, in the seventy-eighth year of his age.

GOODWIN.—In Kansas City, Missouri, on Thursday, November 3rd, Dr. Hugh S. Goodwin, in the thirty-sixth year of his age.

GUNTER.—In Camden, New Jersey, on Saturday, November 5th, Dr. George H. Gunter, in the fifty-first year of his age.

LALIBERTE.—In Minneapolis, Minnesota, on Saturday, November 5th, Dr. Thomas L. Laliberte, in the fifty-fourth year of his age.

POLLATSEK.—In San Francisco, California, on Saturday, November 5th, Dr. Jacob Pollatsek, in the fifty-fifth year of his age.

POWELL.—In Baltimore, Maryland, on Friday, November 4th, Dr. Alfred H. Powell, in the seventy-fourth year of his age.

WADE.—In Holly, Michigan, on Friday, November 4th, Dr. De Witt Clinton Wade, in the seventieth year of his age.

WHITE.—In Baltimore, Maryland, on Wednesday, November 2nd, Dr. Walter W. White, Sr., in the sixty-second year of his age.

New York Medical Journal
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Original Communications.

METHYL ALCOHOL, ITS PROPERTIES, USES, AND ABUSES.

By H. W. WILEY, M. D.,

CHIEF OF THE BUREAU OF CHEMISTRY, UNITED STATES DEPARTMENT OF AGRICULTURE.

When wood is heated in retorts, the moisture is driven out, but no decomposition occurs until the temperature approaches 160° C. Between 160° and 275° C., a thin, watery distillate, known as pyroligneous acid is chiefly formed; above 275° the yield of gaseous products becomes marked, and between 350° and 450° C. liquid and solid hydrocarbons are most extensively formed. Above this temperature little change occurs, and charcoal remains in the retort.

The distillate is condensed and run into large tanks, where the tar settles to the bottom, and the pyroligneous acid, containing acetic acid, methyl alcohol, acetone, allyl alcohol, phenols, and a great many other compounds in small amounts, remains on top and may be drawn off. As the boiling point of methyl alcohol is 66° C., while that of acetic acid varies from 100° to 120 C°., according to the amount of water present, if the crude pyroligneous acid is again distilled, that portion distilling below 100° C. will contain most of the methyl alcohol, together with acetone, methyl acetate, and allyl alcohol, while that portion distilling from 100° to 120° C. contains the most of the acetic acid.

The crude methyl alcohol from the above described distillation is purified by diluting with water until it becomes milky, owing to the separation of oily impurities which collect in a separate layer on standing and are removed. The liquid is redistilled over lime in a rectifying still and the sprit filtered through a charcoal tower to remove coloring matter. By again distilling over lime 99 per cent. methyl alcohol is obtained. Acetone, which boils at 56.3° C., is not removed from methyl alcohol by distilling over lime, hence to remove this the alcohol is treated with chloride of calcium, when chloroform is formed from the acetone, and the methyl alcohol distilled, or with iodine and caustic soda and the alcohol redistilled after the iodoform has been removed. Or the alcohol may be treated with calcium chloride, and the crystallized solid, which is stable below 100° C., gently treated until the acetone is driven off. The calcium chloride compound is then treated with hot water under pressure, during which it is broken up and the methyl alcohol afterward distilled off. The products of the destructive distillation of wood are given in the following table:

	Charcoal. Bushels.	Wood alcohol. Gallons.	Gray acetate. Pounds.	Turpentine. Gallons.	Tar. Gallons.
Mixed hard wood......	43-52	2-12	50-200	..	3-5
Southern pine.........	43-52	1-2	50-120	10	5-10

These are the chief products of distillation. In addition there is a large volume of gases evolved, consisting mainly of hydrogen, methane, ethane, ethylene, carbon monoxide, and carbon dioxide, which, having no value for illuminating purposes, are burned under the retorts. An average of 0.1 per cent. of acetone passes over during the distillation, and, as has been said, is very difficult to separate from the methyl alcohol.

Methyl alcohol is also said to occur in traces in the juices of some plants, and a compound thereof is well known as methyl salicylate in the oil of wintergreen. When pure its specific gravity at 0° is 0.810 and at 16° 0.7956. It differs but little in this property from ethyl alcohol, which has, at the temperatures mentioned, gravities of 0.806 and 0.794 respectively. It is therefore useless to try to distinguish between these two alcohols by determining their volume weight. The boiling point of pure methyl alcohol at ordinary pressure is 66°, while that of pure ethyl alcohol is 78°. Although these boiling points are widely separated, it is difficult to so fractionate a mixture of the two alcohols as to secure each in an unmixed state.

The exact determination of the quantity of methyl alcohol which may be mixed with ethyl alcohol or other alcohols is somewhat diffcult. One or the other of the following methods is usually employed. The first method depends upon the conversion of methyl alcohol into aldehydes, the removal of any acetaldehyde which may be formed, and the subsequent detection of formaldehyde. It is not probable that the members of the profession in general will be interested in the details of this process, and I therefore content myself by referring any who desire to study it more carefully to Bulletin No. 65, page 72, of the Bureau of Chemistry, entitled *Provisional Methods for the Analysis of Foods.*

The other method which is particularly suited to the detection of methyl alcohol in commercial spirits is found described on page 212 of the *Analyst,* Volume XXIV, 1899.

A simple color reaction for methyl alcohol is described in the *American Chemical Journal,* Volume XXI, 1899, page 266. This test also depends upon the oxidation of methyl alcohol to formaldehyde and the detection of the presence of the latter compound by the reaction with resorcin or phloroglucin and sulphuric acid. This is a test which can be easily applied and therefore I will give it in sufficient detail for ordinary purposes.

It is best that the solution to be examined should be previously distilled, but this is not always necessary. A spiral copper wire is heated to a bright red heat and plunged into a small quantity of the mixed alcohols to be examined. It is well, if the solution is dilute, to repeat this process several times. If the alcohol is concentrated it should be diluted before the application of the test. One drop of a half per cent. aqueous solution of resorcin or phloroglucin is added, and the mixture carefully poured into a test tube containing a few cubic centimetres of concentrated sulphuric acid. The presence of methyl alcohol is indicated by the production of a rose red zone at the conjunction of the two liquids. Above this zone a scanty white or pinkish coagulum appears which finally separates and rises in purplish red flecks.

The only compounds which give any reactions similar to the above described are the tertiary butyl alcohols, dimethyl-ethyl-carbinol, and formic acid. The succession of colors and the deportment of the flaky coloring matter finally produced are quite different, however, with these bodies as compared with those given by methyl alcohol.

Practically pure methyl alcohol is on sale in the United States under various names. Among these, Columbian, or Manhattan, spirit may be mentioned. The toxic character of this alcohol is so pronounced as to render it advisable that every package containing it—no matter what the trade name may be —should be plainly marked as is required for poisons. Unpurified wood alcohol is known also as wood spirit and wood naphtha.

The uses of methyl alcohol are very many. The crude methyl alcohol, or wood spirit, is used in many countries, especially in England and its colonies, for denaturing ethyl alcohol for use in the arts, for instance, for burning in lamps and other purposes. Ethyl alcohol, thus denatured, may be used in England without tax when mixed with a certain portion of wood spirit. The properties of methyl alcohol are such as commend it for use in the arts as a solvent or for other purposes, and also for burning in lamps. One of the common methods for producing formaldehyde is by burning methyl alcohol in a lamp of special construction. This general use of denatured methyl alcohol in the arts is advisable because of the tax which is laid upon ethyl alcohol. This tax for alcohol is not remitted in this country for any except the public service and for institutions of learning and research.

The general toxic properties of methyl alcohol, when taken into the system as a beverage or otherwise, have been well set forth in recent articles in the *Journal of the American Medical Association,* written by Buller, of Montreal, and Wood, of Chicago. These papers being at the disposal of all members of the profession, it is not necessary even to summarize them here. The general effects which are produced by the use of methyl spirit in any form internally are such as to justify its classification among the poisons. When intended for external use also, it seems to me that a similar prohibition should be exercised. This would lead to the prohibition of its use in the manufacture of such a mixture as bay rum or of similar decoctions which are to be applied externally. Its introduction into any substance which is to be used internally as medicine or beverage should be absolutely prohibited. The penalties for its introduction, it seems to me, should be as stringent as those which attend the use of other poisonous matter.

Stringent precautions should be employed in the marking of all vessels containing methyl alcohol and compounds or mixtures thereof, so that even the unwary might be advised of danger. The thirst for alcohol, which is developed in some men to such an extent as to be an actual disease, leads them to consume almost anything which has the appearance of the stimulant which they crave. As a purified methyl alcohol has something of the odor and taste of ethyl spirit, it is not strange that the victim of such a taste might be misled. It is astonishing to observe the character of the decoctions which persons suffering from such a disease will drink. The crime of wilfully placing a poison of this kind in beverages, which of themselves are quite destructive enough, is one which should meet with swift and appropriate punishment. It is well known that alcoholic beverages can only be used in moderation even when containing only pure ethyl alcohol and the oxidized residues of some of the other pure alcohols known by the common name of fusel oil.

The use of fermented and distilled beverages in small quantities, it appears to me, can hardly be objected to on hygienic grounds, since Nature is able to oxidize and convert into heat and energy a limited amount of ethyl alcohol. The gentle stimulation and agreeable effects produced by small quantities of beer, wine, and distilled spirits are well known. The great value of these preparations in certain disordered states of the body is also acknowledged and they thus become a valuable part of the pharmacopœial armament. All tampering with these beverages by the addition of substances even of a suspicious character should be forbidden. There can be no excuse for that exhibition of greed for gain which manifests itself in the addition of harmful substances of this kind to beverages.

RADIOTHERAPY.*

By MILTON FRANKLIN, M. D.,

NEW YORK,

LECTURER ON ELECTRORADIOTHERAPY, IN THE NEW YORK POLYCLINIC.

Radiotherapy, broadly considered, includes all methods of therapeutics employing the x ray, the ultraviolet ray, the rays from radium, and other radioactive substances, the rays from fluorescent substances, the high frequency currents of Oudin, Piffard, and d'Arsonval, and other as yet obscure forms of radiation, among which may be mentioned the n rays of Blondlot, and the Piffard rays.

Various attempts at classification have been made. Until now by general usage the term actinotherapy has been accepted as indicating the department concerning ultraviolet rays, and radiotherapy as covering the employment of the x rays. The nomenclature is imperfect and incomplete, failing, as it does, to make provision for future developments which we are justified in expecting along many lines of research, and making no mention of that valuable and considerable branch of the subject which concerns the isolation of smallpox patients in rooms from which all actinic rays have been excluded.

The provinces of the x rays and the ultraviolet rays have been fairly defined, while our knowledge of the other forms of radiation, with regard to their use in therapeutics, consists of a few scattered facts and a huge mass of speculative hypothesis.

It is my purpose this evening briefly to outline what has been actually accomplished by these methods and to touch upon what may be logically expected from a physical consideration of the subject.

Red Light in Smallpox.—It is said that the Chinese used red coverings to the windows of rooms in which were smallpox patients, 3,000 years ago, and John, of Gaddesden, in 1310 made mention of this method, but its scientific application is due to Dr. Niels Finsen. In 400 cases treated, the suppurative stage was aborted, pitting and scarring were prevented, and the course of the disease was shortened and rendered less severe. Secondary infective fevers were eliminated. While the method has not been successful in all cases where applied by others, it is more than likely that the technique has not been rigidly adhered to and proper means of checking applied. In the Finsen trials the exclusion of the actinic rays was carried to the point of greatest possible efficiency, and a photographic dry plate was left uncovered in the room as a check. If, after several days exposure, the plate showed evidence of fogging on development, the isolation was deemed to have been inadequate.

The Ultraviolet Rays.—In lupus vulgaris, tuberculous ulcers, tuberculosis verrucosa cutis, and all conditions of superficial tuberculosis, the Finsen method of treatment by ultraviolet rays may be regarded as specific. In quarters where this method has been conscientiously tried, so great is the confidence reposed in it that cases which do not respond are regarded as other than tuberculous. The method has suffered much in reputation from attempts to simplify the apparatus, curtail the expense of the treatment by using smaller apparatuses, and shorten the duration of the treatments. It can only be repeated here that a satisfactory application of the method necessitates the employment of correct apparatus and the devotion of sufficient time to the exposures and to the interval between treatments in which reaction takes place.

While there are some cases, reported as cured, of lupus erythematosus, there is yet some doubt as to whether this is the best method in that condition.

Reports of cures of cancerous conditions may be regarded with suspicion, in view of the absolute failures met with by the foremost advocates of this method. A few cases of ringworm, sycosis, favus, and kindred conditions have been undoubtedly cured and according to Pusey, flat vascular nævi are beneficially influenced by this method.

The X Rays.—After the first burst of enthusiasm which greeted the advent of the x rays as a therapeutic agent, there followed in due course the inevitable reaction of disappointment and pessimism due to the failure to materialize of the extravagant claims and predictions of the fanatic. At the present time, however, the status of the method is being rapidly determined with accuracy within well determined limits, and it is not unlikely that within a short time the means at our disposal will admit of applying this therapeutic agent with scientific certainty.

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* Read before the Eastern Medical Society of New York.

The chief objection to the method, thus far, has been the impossibility of accurately determining dosage or measuring the activity of the energy emanating from the tube. I have been working on a method to this end for some time, and shall be able to present it shortly. This method will render it possible to measure at any instant the exact strength of the x rays from a tube, and to regulate the amount of dosage accordingly.

It is undoubtedly established that the x rays exert a marked influence upon carcinomatous growths and cause them in many cases to slough out and apparently melt away. In the beginning of the use of the x ray many attempts were made to cure cases of cancer by this means alone, but subsequent observation has demonstrated that, although the action of the rays is undoubtedly destructive to the growth, there are in most cases other complicating considerations which render it extremely inadvisable to proceed without the assistance of surgery. It may be stated as the general consensus of opinion that all operable cases of cancer should be operated upon, and then exposed a certain number of times to the x ray, with the object of destroying those isolated tiny rootlets or cells which may be lurking in locations inaccessible to the operator, or undetected in the operation. The marked diminution in the mortality rate following operations in patients who have been treated in this manner, speaks volumes for the practical utility of the measure, and I do not hesitate to say that in this direction lies the most valuable of all the benefits which the ray has conferred upon medical science.

Innumerable cases have been reported as benefited by the ray treatment, but few, if any, cancers of the breast, uterus, or deeper structures have been completely cured. Many growths have grown markedly smaller, but the patient has become just as cachectic as if the growth had not been disturbed, and often more so. The fact that the waste products of the destructive action of the rays are eliminated through the regular eliminatory channels of the organism explains the marked shock and rapid sinking of the patient, which often accompany any considerable reduction in the cancerous growth. Metastasis is undoubtedly more common in cases that are treated in this manner. Where for any reason, an operation is contraindicated, the x ray offers a measure of relief and often prolongation of life, which in the absence of anything better may be of considerable value to the sufferer.

In superficial cancer, on the other hand, there are numerous cases that have been cured, and the rays act therein in an unquestionably beneficial manner. Many cases that have resisted even the action of cauterant pastes respond readily to the x rays. On the face or hands, where it is desirable to obtain as little scarring or deformity as possible, the ray offers a means of accomplishing this end, than which there is none better. Of course the method is tedious, but this consideration is often negligible in comparison with others present.

Epithelioma of the lower lip is an exception to the class which may be so treated. I do not know of a single cases that has been successfully treated, and I know of many that have resulted in failure.

The beautiful cosmetic results obtained in cases treated by the x ray or the ultraviolet rays may be explained by the fact that the rays destroy only the affected cells, thus differentiating in a manner which cannot be even approached by other means, and the resulting scar proliferation is closely surrounded and interlaced with the surviving, healthy cells, so that the new tissue does not occupy an isolated position.

Lupus vulgaris may be treated with the x ray, but the results are not uniform and there is the constantly present danger of injury. The percentage of recurrences also after this method of treatment is large. It is evident that the x ray causes a rapid growth of apparently healthy skin upon the site of the lesion, but the underlying nodules are but slightly if at all affected, and they proceed to develop and break down as soon as the treatment is discontinued.

In lupus erythematosus, the x ray is generally conceded to be without appreciable effect.

Hypertrichosis has been cured by exposures to the rays, but the method is to be condemned on account of the uncertainty and extreme danger always attending its use. In many cases no falling of the hair results, in others the hair returns as thickly, or more thickly, than in the original condition, and very often a severe burn results before there is any amelioration of the condition.

Generally speaking, the x ray may be used with profit in suppurative conditions of the skin, such as acne indurata, rosacea, and ecthyma and in superficial malignant conditions where the length of the treatment is not a considerable obstacle.

Radium.—The use of radium as a therapeutic agent has been too limited up to the present time to warrant our forming a positive opinion as to its ultimate status among the radiotherapeutic agents. That it is capable of exerting a marked reaction upon the human tissues, there can be no doubt, but whether or not the reaction is more beneficial than, or as much so as, those produced by other means at our disposal, remains to be seen. The difficulty of procuring radium and its enormous cost will bar it from ever becoming a commonly used therapeutic measure, unless it is found to possess properties far surpassing anything which it now gives promise of.

The radiations from radium consist of three distinct kinds, arbitrarily named alpha, beta, and gamma. The first are absorbed by thin layers of almost any material or by a few millimetres of air, so that we need not consider them in the ordinary experiments where the radium is contained in a tube of glass or aluminum. The last named are extremely small in quantity and are difficult to detect at all, excepting in the more active specimens, so that we are little concerned with them.

The beta rays, on the other hand, easily penetrate glass or aluminum tubes and are present in great quantity, and to them may be attributed the effects noted. These rays are identical with the Crookes or cathode rays found in the Crookes tubes, with the exception that their velocity is about ten times that of the latter or about 100,000 miles per second.

When a tube containing a small quantity of radium salt is placed for a period in contact with the tissues of the body, it is found that after twelve to forty-eight hours, a reaction closely resembling an x ray dermatitis appears. This fact has been taken advantage of for the undertaking of experiments along lines similar to those followed in the case of the x ray, and the results have been in the main analagous. Some cases of lupus treated by Williams have been benefited and generally the results have been the same as those obtained by the x ray, but in much lesser degree. For the present there is little hope that we have anything to expect from radium.

Fluorescence.—In speaking of the therapeutical application of fluorescence, it is necessary to take into account the distinction between fluorescence and phosphorescence. These processes, while closely related, are by no means identical, yet are liable to be confused. Fluorescence is the property possessed by some substances of absorbing light rays of certain wave length and converting them into, and emitting them in, waves of greater length. Thus, if a solution of quinine sulphate is exposed to invisible ultraviolet rays, it will emit bluish green rays whose presence can be accounted for only on this assumption, in view of the fact that no appreciable change takes place in the quinine. The transformation seems to be purely physical and not chemical. Phosphorescence, on the other hand, observed in many substances, is the property of absorbing light radiations and emitting them slowly, after the energizing source has been removed. The emitted rays may be of the same length as those which have been absorbed or they may be of another length, in which case there is a combination of the two processes.

Experiments by von Tappeiner, Dreyer, Busck, and others have demonstrated that certain fluorescent substances, themselves innocuous, have the power in the presence of light of markedly inhibiting or even killing certain bacteria. Acting upon the hint the experimenters have applied such substances, e. g., eosin, to superficial lesions, such as condylomata, carcinomata, and lupus, and have then exposed the same to concentrated light. There is some evidence that the result has been beneficial, but the state of the evidence is by far too uncertain to warrant any positive claims as yet.

The theory that the fluorescent substance taken into the tissues acts as a sensitizer in the sense of a photographic sensitizer is advanced by some, but at the present time there is great confusion of ideas on the subject. A great deal of further experimentation will be necessary to determine the positive usefulness of this method. It should be remembered, however, that the process of fluorescence is almost invariably the conversion of a short or active wave length into a longer or less active one, so that nothing is gained in actinopotency, and that the amount of light given out by a phosphorescent body is very considerably smaller than the amount absorbed by it, so that any action from the light given out within the organism is extremely doubtful. It is shown, on the other hand, that in the presence of light certain substances possess a great activity, and by introducing such a substance into the tissues and then exposing it to the radiations from radium or the Crookes tube, we may get an action otherwise unobtainable. It must be borne in mind that the fluorescent substance circulates throughout the system and, that if there is any property enabling it to affect the tissues, the very delicate lining membranes of the brain vessels are in danger of injury. The theory has been advanced that light decomposes the fluorescent substance into poisonous constituents.

The High Frequency Currents.—There are at the present time five different current types used in therapeutics, known as high frequency currents. These are the autocondensation, the autoconduction and the heliocoidal shunt of d'Arsonval, the resonant of Oudin, and the hyperstatic of Piffard.

Owing to the great confusion in ideas on the subject, it is extremely difficult to say what the exact state of the science is at this time. Mention of the particular current which is used is commonly omitted from the literature of the subject with consequent difference of opinion on the part of various observers.

The d'Arsonval currents are used mostly in conditions involving faulty metabolism, while those of Piffard and Oudin are generally used in diseases of the skin. In the first, the results are by no means as yet conclusive, while with the other two forms, something definite has been accomplished. With either, a surface reaction may be almost instantly produced, and controlled in intensity, from that of the mildest erythema to that of actual necrosis, with the utmost certainty and ease. Small growths, such as nævi, epitheliomata, verrucæ, etc., may be almost instantly and painlessly removed. The chief difference in these currents seems to be that the hyperstatic of Piffard is infinitely less painful that the resonant of Oudin, while the effect is not appreciably less.

The Piffard Rays.—A discovery which is likely to be of the greatest importance is that of a new form of ray, emanating from his spark gap lamp, by Dr. Piffard.[1] These rays are distinct from the ultraviolet rays which exist in great profusion in the condenser spark. They are capable of discharging the electroscope, when positively as well as negatively charged, and exist in such profusion as to accomplish this almost instantly. These rays produce very little or no photographic action on silver chloride, but cause a cutaneous reaction after an exposure of five minutes, which resembles that of radium, with the exception that it appears in a much shorter time. Up to the present, little experimenting has been done with these rays, but in cases of lupus erythematosus, treated by Dr. Piffard, Dr. Diefenbach, and myself, the results have been better than with any other form of radiation. In one case treated by myself, one side of the lesion has been exposed to these rays and the other to the Finsen or ultraviolet rays and the difference has been startling.

In Conclusion.—The province of the Finsen treatment and that of the x rays are fairly defined and are gradually assuming definite limits, but radium, and spark gap radiations as therapeutic agents are, as yet, almost untried, while the fluorescent substances have scarcely hinted their possible value. There is a vast field of inquiry open to original research, with much food for further speculation and development along these lines. There has been much jumping at conclusions and much futile speculation, but the earnest way in which this most abused branch of therapeutical research has at last been undertaken offers great hope for the future.

112 West Forty-seventh Street.

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Smallpox in Ann Arbor, Mich.—Seven cases of smallpox have been recently discovered among the students at the University of Michigan. Six are in the engineering and one in the law department. Health Officer T. B. Cooley reports that none of the patients is dangerously ill. The gymnasium has been closed, but classes have not been interrupted. All the students are being vaccinated and examined for symptoms.

THE RELATION OF THE PHYSICIAN TO THE BUREAU OF HEALTH.*

By S. W. Newmayer, M. D.,

Philadelphia.

This is an age in medicine of sanitation and preventive medicine. The treatment of disease is secondary to the prevention of it. The profession has spent centuries to find the causes of diseases; and now, by evolution, we are advanced in the study of public hygiene. But it remains for us to give the practical application of the results of much labor, and prove to the world that our theories are right. The physicians' standing in the community is judged mainly by their ability to combat the diseases that may affect the masses. These are mainly the infections. The government and the people realize the need of the advice and protection from such diseases by the physician. This authoritative guidance in sanitation and forensic legislation you have vested in specialists in public health, who are grouped as a most important part of every municipal government, under the title of Bureau of Health. The profession from all over the world has labored hard to give this bureau the ideas and knowledge from which they must work. But many forget that the practical application of the principles of sanitation lacks completeness without the unrelenting cooperation of the entire medical profession.

Cooperation is the word, in which are gathered all of the duties of a physician to the Bureau of Health. An explanation of this is the object of this paper. We are not so much in need of new discoveries for the eradication of communicable diseases, but those methods which are well known to be reasonably sure defences against the spread of contagion should be more rigidly and systematically practised.

Medical inspection by the Bureau of Health, to within a recent period, has been routine and along certain old and well defined lines. Progress was slow because of limited laws governing their power, and a false conception of the ethics due the profession. The medical practitioner has been in greater part responsible for this state of affairs, because of his disinterest in municipal work, and also an ill founded disrespect for health officers. In like manner the physician breeds a similar opposition against the bureau in the families with which he comes in contact.

Irrespective of the relation of a physician to this branch of a municipality, through a set of laws laid down, he owes it a greater duty in promoting the unwritten laws of public health. We naturally expect a higher grade of morality in the profession of medicine than in other professions. To criticise the practitioner who fails to report a case of contagious disease, either for remuneration, or to so called "protect or shield the family," would only be calling attention to the dishonest and disloyal members of the profession.

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[1] *Journal of Cutaneous Diseases*, June, 1904.

*Read before the Philadelphia County Medical Society, October 26 1904.

The health department has no desire to inconvenience a family who has a case of infection, only to see that proper steps are taken to the protection of the rest of the family and the community. There should be no need of legally calling some doctors to account for failure to report a case of contagion, so as to set an example to other physicians. To wait for the patient to be well advanced in the disease permits of inestimable damage.

The maintenance by the city of modern, efficiently equipped laboratories for bacteriological and chemical diagnosis, free of expense to all who desire to take advantage, makes it inexcusable in most cases for long delay in diagnosis. Typhoid fever, malarial fever, tuberculosis, pneumonia, and diphtheria are ofttimes diagnosticated with ease, with the aid of the laboratory, when otherwise the diagnosis would be in doubt and possibly valuable time lost. This means of diagnostic precision is offered to you free. The work of this laboratory should materially increase, and yet the number of examinations of cultures made from suspected diphtheria has diminished in the last several years, though there has been an increase in diphtheria. The examination of the blood, in suspected typhoid fever, for the Widal reaction, seems to be the one most desired by the profession. The value of this test may be better appreciated, besides the quality of work by the city laboratory, when one notes that the number of blood examinations for this reaction since 1897 was 24,588, and the discrepancy between the laboratory and the clinical diagnoses was only 4.9 per cent.

Not only would I make a plea for more accurate and earlier diagnosis by the use of the laboratory methods; but a postgraduate course in the clinical diagnosis of the more common communicable diseases should be offered to physicians. The Bureau of Health should have under its supervision a series of lectures and demonstrations by competent teachers, to which the physicians should be invited to attend. This would favor a more accurate and earlier diagnosis and fewer mistakes, and thereby lessen the spread of contagion. It may surprise one to know the large number of mistakes in diagnosis in the infectious diseases. To within a recent period there was little attempt to train the student of medicine in the practical recognition of these diseases. It is surprising that so little concern was given to this subject by medical colleges, when an error of diagnosis may affect a whole community, while in the ordinary non-contagious diseases it affects an individual. At the present time it is optional in all the five medical schools of Philadelphia for the students to study the infectious diseases. And Dr. Welch informs me that the number of students who attend the course at the Municipal Hospital numbers about one third of the classes. The remedy of this would seem to be of no small importance. It should be compulsory for every medical student of all colleges to attend lectures on the contagious diseases, and see cases in the city hospital. Also there should be given to each graduating class one or more lectures on the duties of a physician to the Bureau of Health, explaining what diseases to report, and the best methods of protecting the public.

On the diagnosticating of a contagious disease several things in reference to the family and the surroundings should be taken into consideration, in deciding whether or not to treat the patient at home. The neighborhood being a congested district; the dwelling being unsuitable for proper isolation; or small dependence being placed on the family being able to carry out strict instructions, to safeguard the public. Such cases should be encouraged by the physician in attendance to be treated in the city hospital. It is fortunate that there is no longer a choice as to the keeping of cases of smallpox at home. And the greatest boon to the prevention of the spread of contagions will come when all cases of contagious disease will be required to enter a hospital for their treatment. With the completion of the new Municipal Hospital there will be an institution which will not be equaled by any similar one in the country. It is to be modern, comfortable, and well equipped for the treating of all contagions. The establishing of private rooms for those able and desirous of paying, and wards and service which will be inviting to both rich and poor, should make it impossible for the best home treatment to surpass it. With the opening of such an institution the profession should give unstinted aid in overcoming all prejudice against a hospital for contagious diseases. When patients insist upon remaining at home the attending physician should work in conjunction with the Health Bureau, to see that every precaution is taken to prevent the further spread of the disease. The case should always be isolated on the top floor, in a suitable room, away from the rest of the family. It is not unusual for the medical inspector to find a case in the parlor or the dining room, and the rest of the family going in and out of the same room, no attempt at isolation being made. The health department desires at no time to interfere with the instructions of a physician to a family; but if he entirely ignores instruction in the necessary precautions, it becomes the duty of the medical inspector. It is in these cases that the inspector is misjudged as interfering with the rights of the attending physician.

While many physicians in the most careful and conscientious manner instruct the families of patients with scarlet fever and diphtheria, yet they pay little or no attention to their cases of typhoid fever. A physician is not doing his duty either to his patient or the community, when he merely diagnosticates and medicinally treats a case of typhoid. To him belongs the work of aiding the Bureau of Health in finding possible source of infection and in carrying out the sanitary laws laid down by that department. If the attending physician would request the family to give the medical inspector all the necessary information, the department would never receive such replies as " You must see my lawyer," " I have no time," or a positive refusal to answer all questions.

To blame the water supply for the epidemics of typhoid fever in Philadelphia and elsewhere, and then sitting idly down and waiting for a pure stream to flow our way, is going wide of the mark. A study of the following statistics may prove interesting:

For the year 1903, the number of cases of typhoid fever in the Twenty-eighth, Twenty-ninth, and Thirty-second Wards was 1,243. This includes that residential portion of the city west of Broad Street and between Poplar Street and Lehigh Avenue. The majority of the residents of this district are of an educated class who are most apt to use spring, filtered, or boiled water. While in the Second, Third, Fourth, Fifth, and Sixth Wards, there were for the same period but 662 cases. This district has about an equal population, and extends east of Broad Street, and from Wharton to Vine Streets. It comprises what is considered the tenement or poor district, and mainly a class of people who scarcely know the meaning of filtered, spring, or boiled water. But the reason I advance for this seeming paradoxical state of affairs is that the downtown section has the majority of its cases of typhoid fever removed to hospitals, and here they are no longer sources of infection. Few cases remain to beget other cases.

If the city spends $50,000,000 additional to the sum already expended for filtration, and also places in every home a copper filter, we should not be preventing typhoid fever. I do not mean to belittle the absolute necessity of a pure water supply, nor do I desire to dispute the value of copper as an antiseptic. But we must not forget that one case of typhoid fever is the cause of other cases directly or indirectly. The public has been allowed by many physicians to lapse into a careless attention of the prophylaxis of its cases of this infection. To prevent one case from infecting others, we must diagnosticate the case early and destroy the bacilli from all possible sources. The diagnosis of typhoid is uncertain in the early stages, but is more positive by the aid of the Widal test. In all continued fevers the laboratory should be used as soon as possible. But the physician should not wait in these cases for a positive diagnosis, but in all continued fevers he should take immediate precautions to disinfect the stools and the urine. There is nothing to be lost by such a procedure; but much is to be gained. The physician must impress the family with the great danger of infection and should insist on a thorough disinfection of all excreta, and a rigid carefulness on the part of attendants to disinfect their hands, etc. It is common for a medical inspector to meet a family having a case of typhoid at home for one, two, or three weeks, and no instructions as to disinfection having been given by the attending physician. The inspectors' instructions in these cases rarely attain the results which would have been had the physician given proper advice and directions. Again, by the time the bureau has been notified much damage has been done.

It is not the object of this paper to detail the best methods of disinfection of stools, urine, expectoration, bed linen, attendants' hands, and bath water. I venture to say, however, that a careful attention to the details in the disinfection in all cases of typhoid fever, would see this city almost free of the dreaded infection in less than three months.

The physician plays no small part in the responsibility to rid the city of smallpox. Every physician agrees on the absolute necessity of vaccination. The inspectors of the Bureau of Health have several times covered the entire city, in a house to house canvass to vaccinate all who would submit. But many children remain unvaccinated, and many adults have not been done since childhood. There are many of these who slam the door on the medical inspector, who would graciously submit at the mere suggestion of the attending physician. In the recent canvass during July and August, there were found 2,705 infants under two years of age, among whom only 790 were vaccinated. Think of it! 1,915 out of 2,705, or about 71 per cent. remain unvaccinated. From personal observation I know the greater number of these are due to the neglect of the family physician. He is the family advisor; his word is invariably their law; and because of his disinterest, many ignorant men and innocent children are allowed to face unprotected the danger of smallpox. An inspector finds a child five years old unvaccinated, implores the mother to have it done, and she answers, "I have my family doctor, thank you." Five years the child has faced the danger, and the doctor passes in and out of the home unconcerned, and he would possibly leave many more years pass if entrance to school did not force the issue. There is no shirking of work or responsibility on the part of health officials. It is a credit not only to the bureau, but to the entire profession, to stamp out such contagion. To do this your aid is needed. Do not answer, "We are not paid for that work." There is much unpaid work in the profession and less profitable. The reward will eventually come to the entire profession.

The contagious diseases which carry off the vast majority of the human race, are those which can be greatly restricted in severity and numbers, but over which the health department has at present comparatively small control. Among this deadly list are tuberculosis, and pneumonia, and infant deaths from summer diarrhœa. For the year 1903, the number of deaths in Philadelphia, from diseases of the lungs, phthisis, pneumonia, inflammation, and congestion, was 6,333, or more than 24 per cent. of the entire mortality rate for the year; while the deaths from diphtheria, membranous croup, scarlet fever, typhoid, and smallpox combined were 2,029, or less than 8 per cent. This does not include the deaths from tuberculosis in other organs of the body, and which we know ofttimes means primary or secondary infection of the lungs. So if the statistics were corrected for this factor, we would be horrified at the statement. Now that tuberculosis and pneumonia are reportable diseases in Philadelphia, the question arises, Shall we thereby lessen to a great extent this appalling condition? It is absolutely necessary to first locate the cases before steps towards restrictive and preventive measures can be taken. Placarding of the house is not desired and is useless. And any inconvenience to the patient is always avoided. The knowledge by the Bureau of Health of the presence of a case of tuberculosis is not the means of giving the least publicity to the case. The bureau may distribute literature, and even give personal instructions in the proper sanitary precautions. This must have a great tendency toward limiting the further spread of this dreaded disease, but the work lacks a pillar of strength, without the conscientious cooperation of the entire medical profession. There must be a practical and concerted plan of education, every physician sparing a little of his time, education, and influence as a teacher; the subject, sanitation, and domestic hygiene; and every dwelling in which he is called in his daily work—a school. This would have an untold influence, one which could never be attained by the combined work of the legislature and Bureau of Health.

The Bureau of Health has done much toward preventing the spread of contagious diseases, and accomplished much good otherwise, by the establishing of the present medical inspection of the public schools. The school children have always been considered a great factor in the spread of contagion. The school room is the place to teach, and there could be no more profitable subject taught the children than "how to live when well or sick." While physiology is taught in the schools, it would be well for those physicians who have in their hands the revision of school textbooks, the addition to such books, of plain simple talks on contagious diseases, cleanliness, and a favorable description of hospital life, that may help allay the fears of a child for such an institution. Added to the textbooks, the children could be given occasional talks on subjects pertaining to their health and manner of living. A practical plan of accomplishing this has been successfully worked in one of the schools in the southern section of the city. What is termed "parents' meeting" is given by the principal and teachers of the school. At these meetings, which are of a social nature and held several times a year, the parents and their children are invited to attend. They are addressed by the principal or one of the teachers, and also by the medical inspector of the school on some subject relating to the care of their children. These meetings have accomplished much good. The parents are brought in closer contact with the teachers and the medical inspector, so when any instructions are sent home with the children they receive more and better attention.

To lessen the infant mortality rate is a subject that has long baffled the profession, and yet all agree that impure milk and improper food is one of the chief causes of this high death rate. Though numerous dealers are convicted of selling impure milk or preserving it with dangerous drugs, yet the crime continues. Not only should the physician and the trained nurse become acquainted with some simple methods for testing for impurities in milk, but the public should be educated along such lines, if necessary, by a corps of trained district nurses. This would give an opportunity to catch the culprits before the harm is done.

Among the by-laws of the county and State medical societies are found as part of the main objects, the following words: "And to the enlightenment and direction of public opinion, in regard to the great problems of State medicine, so that the profession shall become the more capable and more useful to the public in the prevention and cure of disease, and in prolonging and adding comfort to life."

With the conscientious fulfillment of such duties by every physician, I firmly believe all communicable diseases would be greatly ameliorated in severity and some would be entirely stamped out.

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Success of Tuberculosis Dispensary in Washington, D. C.—The new consumptive dispensary recently opened at 605 Four-and-a-half Street, Southwest, Washington, D. C., is proving to be of even greater importance than was expected, and is filling a need which has existed in Washington for a long time. Comparatively few patients have as yet presented themselves for treatment, but in almost every case the need for proper diagnosis and instruction has been apparent at the outset. Consumption is now making much inroads upon the population of the city because the people of Washington have not yet learned that this disease can be stamped out only when individuals, clubs, churches, and organizations cooperate to bring about a new social consciousness. A large committee in Washington, cooperating with similar committees in other cities of the country, is working along four distinct lines in the crusade. The subcommittee on laws and administration is represented by Surgeon-General Walter Wyman, William K. Van Reypen, and M. G. Seckendorf; the subcommittee on printing and distribution by Dr. Richard Kingsman, Mr. Murray G. Motter, and Rudolph Kauffmann; the subcommittee on lectures by Dr. D. Percy Hickling, Dr. G. W. N. Custis, Rabbi Louis Stern, Reverend John Van Schaick, Jr., Dr. C. I. West, Reverend D. E. Wiseman, W. S. Duffield, and E. N. Hunter, and the subcommittee on care and treatment by General George M. Sternberg, Dr. George M. Kober, John F. Wilkins, Miss Emily Tuckerman, and Miss E. W. Jefferson.

THE SURGICAL CURE OF CERTAIN CASES OF SO CALLED CHRONIC DYSPEPSIA.*

By CHARLES A. L. REED, A. M., M. D.,

CINCINNATI.

Those of us who have been engaged in the general field of abdominal surgery during the last fifteen or more years and who are interested in a practical way in the extension of its resources and in the refinement of its methods, have had no more rational ground for satisfaction than in the successful adaptation of surgical methods to certain conditions of the stomach. The conditions to which I allude are found in cases generally recognized as chronic, if not incurable. They are cases in patients who exhaust the medical resources of one physician after another, until generally they are consigned to digestants, diets, foodless foods, watering places, rest cures and sanatoria; or, if they can afford it, are sent to Vichy, Epsom, Montecatini, Carlsbad, Neuheim, or some other place abroad and, so far as the comfort of the practitioner is concerned, the further abroad the better. This chapter of experiences is generally drawn out indefinitely until some acute complication, some intercurrent disease or the exhaustion consequent upon prolonged semistarvation, puts an end to the whole melancholy story.

A QUESTION OF TERMS.

I feel that, following the preceding sketch, it is unnecessary to say that I allude to those conditions that are ordinarily spoken of by the profession and the laity as "chronic dyspepsia," but which, in the light that has been thrown on the subject by the revelation of surgical exploration, have come to be recognized as chronic ulcer of the stomach or duodenum, or both, or permanent organic changes consequent upon such ulceration. And now that I am on the subject of terms and shall shortly consider other sources of existing confusion concerning these cases, let it be understood that I am far from defending the use, or rather the misuse in this connection, of the word dyspepsia which, at most, implies painful peptonization of food and, as a consequence, erroneously implies the existence of mere functional as contradistinguished from organic disturbances which generally underlie all forms of prolonged painful digestion. Nor do I defend the use of such terms as cardialgia, gastralgia, nervous gastralgia, or neuralgia of the stomach, when they are similarly employed to designate a symptom complex, of which pain, whether referable to the cardia or the pylorus, or to the entire stomach, or, for that matter, to "the nerves of the stomach," is at most but a single feature. But it may be well for the purpose of more clearly indicating the class of cases to which I refer, if I present a clinical picture or two drawn from my own work, sketches, however, of cases such as are to be found on the list of many general practitioners in the audience.

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* Read before the Ohio Valley Medical Association, at Evansville, Ind., November 9, 1904.

SOME ILLUSTRATIVE CASES.

A bright, rosy faced, young woman, thirty years of age, fat and anæmic, came to me with a history of a normal appetite, but with painful digestion extending over a period of thirteen years. She had had intervals of complete relief followed by returns more painful than before and at times associated with vomiting. At other times the pain, relieved by eating, would return an hour or so later, often associated with water brash, and the regurgitation of food. She had gone the rounds of medical and institutional treatment, including the rest cure and the milk diet, the stomach tube, and patent foods, until the pain had become unbearable. On exploration I found an ulcer of the pylorus and several small ulcers in the upper segment of the duodenum; physiological rest with permanent drainage was established as I shall shortly define; the convalescence was without incident and the patient, symptomless, returned to her home in Chicago two weeks after the operation. A case of quite another sort, one showing the fatal dangers of prolonged delay, was that of a woman of fifty-three years, upon whom I had done a complete hysterectomy for a very large fibroid eight years previously. Within a few months after that operation, she began to complain of painful digestion which was intense but was frequently relieved by her lying down with the feet elevated. The attacks were often associated with vomiting, the matter vomited being at times stained with blood. Less than two weeks before she had left her home in central Ohio to go to Florida, where she had previously gone, under the advice of her medical attendant, in the vain search for health. When she reached Cincinnati she had had an attack more violent, as to pain and vomiting, than any that she had previously experienced. While in my office she vomited a considerable quantity of fresh blood. I at once sent her to the hospital, where, prompted by my old medical teachings, I prescribed absolute rest, with the hope that, following the spontaneous arrest of hæmorrhage, I might safely do a gastroenterostomy. She did well for a couple of days, when, suddenly, she began to vomit blood, the last time nearly half filling a wash bowl with black coagula. With the patient almost exsanguinated, I operated at once, and found the stomach displaced into the lower left quadrant of the abdomen, its walls fairly studded with varices, some of them as large as a lead pencil, and two extensive areas of ulceration on the posterior wall, one as large as a dollar. There was, also, an annular stricture of the pylorus. The woman was *in extremis* at the time of operation, but notwithstanding the fact that we succeeded in controlling the hæmorrhage, which was yet active when the stomach was opened, and in effecting an anastomosis with the jejunum, she resisted the resuscitating influence of saline infusions and of cardiac and respiratory stimulants and succumbed a few hours later.

These two cases are presented in contrast, because they represent extremes between which are to be found many examples of permanent invalidism due to similar underlying conditions, but which are ordinarily diagnosticated and treated as functional disorders of the stomach. Who has not seen the seamstress, the saleswoman, or the housewife, anæmic, waxy, constipated, with coated tongue, and a poor appetite, complaining of pain and acid regurgitations, and vomiting after eating and, sometimes when she has not taken food, occasionally vomiting in the morning remnants of food she had eaten the evening before, the distress being centralized in the epigastrium and radiating thence, possibly around the left side and up under the left shoulder blade? And how seldom is the case recognized as one of partial pyloric obstruction with yet active ulceration located, probably, on the posterior wall of the stomach? How familiar is the example of the farmer, or the mechanic, or for that matter, the merchant, who, originally robust, with capacity to enjoy the pleasures of the table, has developed a fear of food because of the pain which he knows will follow a meal; who, when he does eat, pays the penalty by experiencing the symptoms already recounted, or, in addition, feels as if he would burst until he relieves the pressure with some bicarbonate of sodium followed by the eructation of large quantities of gas; and who, depressed and misanthropic, finally leaves his business to enter upon the long, dreary, and disappointing search for health? And how seldom is it figured out that his real trouble is an annular stricture of the pylorus, with a resulting dilated and possibly displaced stomach?

CONFUSING REFINEMENT OF DIAGNOSTIC METHODS.

But why should the exact nature of these cases be overlooked? Why should there be so much confusion in diagnosis? I have already spoken of the misleading influence of a defective nomenclature, but, you will say, the refinements in diagnostic methods are such that nothing ought to go undetected either in the stomach or on the stomach or around the stomach. The effort, laudable within itself, has been made actually to see what is going on in the stomach and for this purpose we have the gastroscope, an electric lamp with a sort of speculum attachment which, when swallowed, is presumed to reveal the interior of the stomach, and succeeds much as a lantern could reveal the interior of the Mammoth Cave to a man peeping through a gimlet hole from the outside. We have the gastrodiophane, another electric light arrangement, which, when inserted into the stomach, transmits a phosphorescent glow, but very little in the way of information, through the abdominal wall; we have the gastrograph, still another electrical apparatus, by which an ingeniously devised ball with a wonderful interior, swallowed into the stomach, is presumed to register the peristaltic activity of the organ on what, according to the pictures, seems to be a sort of stock ticker picturesquely placed on the table by the side of the smiling patient. We have microscopes and whole laboratories with which accurately to determine the various elements and chemism of the stomach contents. Then to secure samples of whatever may be in the stomach we have that really valuable but much abused instrument, the stomach tube, and that other novel invention called the stomach bucket; a little silver capsule, open at one end, to which is attached a string. This instrument is swallowed, permitted to remain in the stomach for five minutes, when it is presumed to be filled, after which it is pulled out by the string, possibly not exactly like "the old oaken bucket, the iron bound bucket, the moss covered bucket arose from the well," yet as a neat little bucket, a metal made bucket, arises with joy that none but the patient can tell. But let us concede that each of these devices, like many others invented for the same purpose, has the merit of ingenuity, that none of them is without some value, and that all are to be accepted as the expression of a desire to arrive at accuracy in the diagnosis of what, heretofore, has been a very obscure subject.

A CONFUSING SYMPTOMATOLOGY.

The obscurity has, however, been due in large measure, not only to defective nomenclature and needless refinement of method, but to a confusing symptomatology which has been made all the more confusing by the dogmatic terms in which it has been promulgated by different writers. Thus, six writers on general medicine, whose books it has been most convenient to consult, speak of bloody vomit in such terms as to imply, if not actually to assert, that it is the one pathognomonic sign of ulcer of the stomach, in the absence of which ulcer of the stomach does not exist. This teaching has been very generally accepted by the profession as true, whereas a history of this kind is given in only the small minority of cases that have been surgically demonstrated to be ulcer of the stomach, and when it is given it may indicate malignant as well as benign trouble.

In a tabular arrangement of stomach symptoms arranged by a specialist in stomach diseases, for the purpose of teaching the general practitioner how to tell the difference between "gastric ulcer," "nervous gastralgia," "hyperchlorhydria," and "cancer," we find an example of that confusion which has resulted in the mistaken view that organic changes in the stomach, aside from malignancy are very rare. Thus, we are told that ulcer occurs but rarely in youth; but that it increases progressively in frequency to old age. Precisely the same is stated to be true of both hyperchlorhydria and cancer, while we learn that "nervous gastralgia" is most frequent between the ages of 18 and 35 years; yet, as a matter of fact, we find from the experience of surgeons, who see rather than guess at the actual conditions, that the age of so called "nervous gastralgia" is one that is very prolific in ulcers of the stomach and, furthermore, that many cases that have been diagnosticated and treated as "nervous gastralgia" actually have either ulcers or the consequences of ulcers that are curable by operation. It is very correctly stated that the appetite is but rarely impaired, although ulcer patients get in the habit of refraining from food, because of the pain that follows eating; but the same is true of so called "hyperchlorhydria" and, to a less extent, of "nervous gastralgia." We are advised that epigastric pain is intense, appears shortly after meals, becomes severer on pressure. and disappears at the end of the digestive period, although periods of immunity are rarely experienced; yet W. J. Mayo, whose experience with observed and demonstrated ulcers of the stomach gives him the right to speak with authority, says that "the pain is not constant and does not attend each meal," and that, "at one time great pain will follow a light meal and again a hearty meal will bring no complaint." This quotation and the fact that many of these pains are due to perigastric adhesions prompts me, by the association of ideas, to quote again from the article elsewhere alluded to by Manges, a leading gastrologist, in which he says that "there is no more striking proof of the great strides which have been made in the diagnosis and treatment of gastric disorders than has been shown in the recent work on gastric adhesions, i. e., perigastritis. For most of our knowledge on this subject," he acknowledges, "we are indebted to the surgeons," and he concludes with an expression of belief that further light is to come from the same quarter.

But the confusion already revealed is not all that is imposed upon the practitioner. We are told, for example, that belching is absent, or if present is without bad odor in all the conditions except cancer, whereas belching, often offensive, is a common complaint of ulcer patients who come to operation; the same is taught us about water brash associated with the regurgitation of food, the unreliability of the symptom being equally demonstrated by the revelations of the operating room. Then, too, vomiting is spoken of as occurring after meals in some cases of ulcer, while it is spoken of as irregular in "nervous gastralgia"; absent in hyperacidity of the stomach, and a diurnal manifestation in cancer, while no mention is made of it in connection with cardiac spasm; when as a matter of fact ulcer patients may or may not vomit, and when they do it may be early or late after meals, or even during the latter part of the night, according to the location and severity of the ulcer; while the matter ejected is generally sour, often excessively so, although in some cases, especially when associated with catarrh, it may be either neutral or alkaline. Then we are told that there is no such thing as a tumor in benign ulcer, a statement which is generally true, yet in cases comparatively rare of spontaneously healed perforations and in old exudates and adhesions about the pylorus, there is sometimes found a very distinct tumefaction. Rheinhardt has reported sixteen cases, and the Mayos six; a fact that forces upon us the conviction that, in the absence of other and conclusive symptoms, a case of tumor of the stomach ought not to be relegated to the limbo of cancer, at least without an exploratory incision to determine its true character and extent. Take it all in all, it looks as if the overzeal to be precise has resulted in confusion rather than clearness, and that many of the so called functional cases of "chronic dyspepsia," "nervous gastralgia," "hyperchlorhydria," and "cardialgia," that are being submitted without satisfactory results to prolonged courses of dietetic and medicinal treatment are in fact cases of either chronic ulcer of the stomach or duodenum or both, or the consequences of ulceration, manifested in changes such as adhesions or cicatricial contractions.

PATHOLOGY AND NATURAL HISTORY.

In the presence of this confusion it is important, as a first step in clearing up the question, that due attention be given a few fundamental facts in the pathology and natural history of the disease. In the first place, ulcers may be single or multiple, large or small, superficial, deep, or penetrating and they may occur in any part of the mucosa of the stomach; but they are most frequently found at or near the pylorus, on the posterior wall and along the lesser curvature. They are generally well defined, with distinct margins, surrounding more or less necrotic areas, the destructive process generally extending as deep as the submucous connective tissue. The corrosion may, however, involve important blood vessels, causing hæmorrhage, insignificant or fatal according to the size of the vessel; it may go deep enough to provoke inflammation on the peritoneal surface resulting in exudates followed by adhesions to neighboring structures and not infrequently in the establishment of communicating sinuses with other organs or, more frequently, in fatal extravasations into the peritoneal cavity. But in any event, the mucous membrane being thus distinctly destroyed, repair, when it occurs, is naturally accomplished by the deposit of cicatricial tissue. Cicatricial tissue is distinctly contractile and, as a result, the stomach may be distorted according to the location and extent of the ulcer or ulcers. Thus, we may have "hour glass stomach," the constricting band forming near the middle of the organ; but most generally the process results in the development of contractions more or less complete at the outlet of the stomach. It follows, therefore, that even in the case of healed ulcers, there is a persistent and necessary tendency to a recurrence of the ulcerative process, so long as the crippled ulcer bearing area is compelled to play its rôle in the function of digestion. But whether active ulceration is thus reprovoked or not, the condition of partial stenosis of the pylorus entails more or less serious mischief. In the first place, gastric peristalsis, first exaggerated by active ulceration, weakened to a degree by the subsequent cicatricial deposit, results in tardy stomach digestion; in the next place food, although digested, escapes into the intestines only with pain, much of it being sometimes retained in the stomach long enough to undergo decomposition. This results in the generation of gas, with consequent distension and pouching of the stomach, and this, in turn, weakens the muscularis, lessens peristalsis and still further retards digestion. Occasionally there is downward displacement of the stomach, gastroptosis, in which the organ hangs by its pyloric attachment, its fundus as in two recent cases of my own, now in the Good Samaritan Annex, dropping down as far as the left iliac fossa, a condition that still further increases the painfulness of digestion. The circle of pernicious influence is thus completed and the pathological process in many cases is thus indefinitely perpetuated.

SOME QUESTIONS OF PROGNOSIS.

But what kind of a future can be predicated for these cases upon the pathology that has just been outlined? In the first place we must distinguish between acute and chronic ulcers and between ulcers themselves and the consequences of ulcers, and in doing so we shall find that still another classification is evolved, namely, medical ulcers, or those curable by medical and dietetic measures, and surgical ulcers, or those, whether active or healed, that require surgical treatment for their relief and cure. Acute ulcers furnish the largest proportion for medical treatment, but they may fall within the surgical class, while chronic ulcers and especially healed ulcers with resulting mischievous contractions, never curable by medical treatment, should be recognized as surgical cases from the time the diagnosis is established. But, taking gastric ulcers as they come, Ticomi, quoted by Mayo, believes "that 20 per cent. to 25 per cent. will die under medical treatment." Brinton estimates that about 50 per cent. are cured by medical means. Debove and Remond state that 25 per cent. die directly from the lesion itself (perforation and hæmorrhage), and 25 per cent. additional from different complications, such as pulmonary tuberculosis due to chronic anæmia. Leube, who has given gastric ulcer careful study, says that 25 per cent. die from the direct effects of the lesion and that cases curable medically should be cured in four to five weeks time. Of the deaths from direct effect of the lesion the case that I have already cited from my own experience is an illustrative example. If anything was needed, however, to make the picture more impressive it may be found in the records of cases from the Mount Sinai Hospital, New York, presented at the recent meeting of the Gastroenterological Association by Manges, and I refer to them here only because they happen to be before me (*Medical News,* October 8, 1904), and not because they are in the least different from similar records that could be presented from many other institutions. One, like the example cited from my own practice, was a case of recurrent hæmorrhage, so far gone at the time of operation that the patient never rallied; another was a case of perforation, causing general peritonitis, in which operation was, likewise, followed by death, two quarts of odorless purulent fluid having been found in the peritoneal cavity. Another case of perforation with general peritonitis died so soon after admission that there was no chance to operate, but at the autopsy a clean cut perforation, about a half centimetre in diameter, was found located in the lesser curvature near the pylorus. Then there is a record of perforation causing a subphrenic abscess with a thrombosis of the upper branch of the splenic vein with infarction and gangrene of the spleen, necrosis of the lung, abscess of the liver, and general sepsis resulting, of course, in death. Another case was seized with symptoms of perforation and intestinal obstruction. The patient with pulse at 170 being too weak to risk anæsthesia, an exploration was made without it, when the stomach was found to contain about two quarts of black fluid; a spastic ileus of the small intestine was present and, of course, death occurred the next morning.

ULCER A CAUSE OF CANCER OF THE STOMACH.

That chronic ulcer of the stomach is a fruitful cause of cancer of that organ seems to be a widely accepted fact. The Mayos have observed cancer beginning on an ulcer base. Futterer, viewing the proposition from the pathological standpoint, affirms the existence of the process. Audisten has observed cancer beginning on the margin of an ulcer; Lebert says that direct transition from ulcer to cancer occurs in 9 per cent. of cases, but makes no estimate of the frequency of cancer developing from the irritation of old cicatrices. The latest most emphatic and most authoritative declaration on the subject is by Levings who, in his masterly work on *The Ætiology, Pathology, Diagnosis, and Treatment of Tumors,* says that "there is now no question but that ulcers of the stomach are frequently the cause directly or indirectly of carcinoma in that the process becomes engrafted upon an ulcer or is caused by the irritation of the cicatricial tissue formed in the healing process."

Brooks says (*Medical News,* October 8, 1904), in a communication to the Gastroenterological Association: "I do not wish to close this paper concerning the anatomical characteristics of gastric ulcer without placing myself among those who believe that primary gastric carcinoma frequently arises in the healing lesions. Two of my cases of gastric ulcer show this distinctly."

THE BASIS OF DIAGNOSIS.

But in spite of the variable and uncertain symptomatology already indicated, these cases are diagnosticated and in view of their grave possibilities, it is important that it should be done promptly. This, so far as a reliable presumptive diagnosis, one justifying an exploratory operation, is concerned, is neither difficult or uncertain and can be done by any practitioner, provided that too much attention is not given to fanciful methods, that too much stress is not laid on any particular symptom, and that everything in connection with the case is taken into account. This is the real basis of diagnosis. But to be more specific, the patient may be either plump and florid, or pale, waxy, and emaciated, according to the duration and severity of the case; but in almost every instance the expression is worn, anxious, or depressed; the pain complained of is generally centralized in the region of the stomach whence it may radiate in any direction, generally into the back and often up under the shoulder blades, frequently the left: it is described as boring, heavy, and, at times, burning, and generally comes on, or, when constant, gets worse, shortly after eating; is ordinarily persistent, but occasionally spasmodic; is sometimes relieved by taking food and especially by a small dose of bicarbonate of sodium; only, however, to return a little later. The patient may belch, have water brash, spit up partially digested food or vomit. The presence of blood in the vomitus is conclusive, but its absence is without significance. Intense sourness of the stomach increases the presumption of ulcer, but it is to be remembered that, occasionally, in the presence of ulcer the secretion is alkaline. Constipation is the rule, but it may alternate with occasional diarrhœa; the appetite is ordinarily fair, but the patient is afraid to eat because of the pain that will follow. The stomach may or may not be dilated, but when it is, the fact can be established by giving the patient a half of each half of a Seidlitz powder, or by inflating the stomach by the use of a tube and a bulb syringe; if the lesser curvature is in its normal position and the greater curvature is shown to be at or below the umbilicus, dilatation exists. If the tube reveals the presence of food in the stomach in the morning, the motor power of the organ is unequal to the resistance to the escape of the ingesta. If it is desired to determine the character of the acid present, a customary test breakfast may be given, after which the contents may be siphoned out with the tube and the presence or absence of free hydrochloric acid determined by the use of Congo paper. The results of these findings are not, however, of positive value from the clinical viewpoint, a fact which prompts me to adopt as my own the view summarized by Forchheimer, who says that "chemical findings are to be treated like any other symptoms and, as such, possess only contributory value in the diagnoses, which, after all, must rest on a careful consideration of the general clinical picture." If, however, judicial weight is given to the clinical picture, as I have sketched it, a presumptive diagnosis of ulcer may be arrived at with so much clearness as to justify recourse to the final and conclusive diagnostic measure, exploratory operation. In nine cases out of ten the step will be justified by the conditions revealed. As W. J. Mayo says, "eliminate chronic gastric ulcer and the cases of chronic dyspepsia, gastralgia, and cardialgia, not due to gall stones or the appendix, will be reduced to small proportions."

THE PRINCIPLES OF TREATMENT.

The principles of treatment, now that the underlying pathology has come to be understood, are obvious. In the presence of pain the indication, here as elsewhere, is rest; in the presence of an ulcerative process the indication, here as elsewhere, is to drain; in the presence of obstruction the indication, here as elsewhere, is either to overcome it or make another opening; in the presence of adhesions the indication, here as elsewhere, is to break them up; in the presence of perforation the indication, here as elsewhere, is to stop the leak; in the presence of hæmorrhage the indication, here as elsewhere, is, if possible, to tie the bleeding vessel. These various indications are met by various means. Thus, in certain cases, it is desirable simply to enlarge the pyloric orifice after the manner of Finney, which can be done by dividing the stricture and incising the stomach and duodenum for a short distance either way, plicating the two and stitching them together; it may be necessary to establish a new orifice, which can be done by making an anastamosis between the stomach and intestines preferably either the jejunum or the ileum; it may be necessary in rare cases to excise the ulcer or, in still more extreme instances, the entire ulcer bearing area. It may be imperative in cases in which an ulcer has merged into a cancer to excise the pylorus, or when advanced, to remove the entire stomach. The last three are, however, extreme measures devised to meet extreme conditions, resulting most generally from extreme delay incident to inefficient or, rather misdirected medical treatment. The majority of cases coming up for operation are relieved, one may safely use the word cured, by the two operations, variously modified, that I first mentioned, namely, pyloroplasty and gastroenterostomy.

AFTER-COURSE AND RESULTS.

These two operations, at the hands of skillful surgeons, yield very satisfactory results. In the first place the after course is comparatively painless, patients for the most part having less discomfort during their entire convalescence than during a single one of their previous attacks. The patient is supported for the first five or six days by nutrient enemata, but is allowed liquids, such as hot water, weak tea, or thin, clear broth in small quantities frequently repeated. After the second day some operators allow beer in small quantities to patients that have been used to it. After the first week a more liberal liquid diet is allowed, while a full diet is permitted by the end of the third week. In the mean time the patient after the first twenty-four hours is placed in the semirecumbent posture in bed, and is permitted to retain this posture at will until he sits up, which can frequently be permitted on the tenth or twelfth day. I have had patients make long journeys home at the expiration of the second week, but the better plan is for them to remain in the hospital for a month. The mortality following pyloroplasty and gastroenterostomy in favorable cases ought to be scarcely appreciable, in view of the fact that they have yielded a death rate varying from 3 per cent. to 7.5 per cent. in cases taken as they come. The later history of the cases is equally satisfactory, as the patients, able to eat what they wish, rapidly regain their weight and strength—often within a month or six weeks—resuming their ordinary activities of life.

The facts that I have presented justify the following conclusions:

1. The majority of cases of so called "chronic dyspepsia," "gastralgia," "nervous gastralgia," "neuralgia of the stomach," "cardialgia," and "hyperchlorhydria," are, in fact, cases of ulcer, or the organic consequences of ulcer, of the stomach or duodenum or both.

2. Cases amenable to medical treatment should be cured in from five to six weeks, after which time they should be placed in the surgical category, while hæmorrhagic cases should be operated upon without the delay prescribed by medical writers.

3. Surgical ulcer of the stomach, if neglected, may develop adhesions, perforations, hæmorrhages, or cancer, or, in the absence of these, may provoke sepsis and anæmia, which, if the underlying conditions are not corrected by operation, may and frequently do prove fatal.

4. It is important, therefore, that the cases should be promptly brought to operation which, without reference to details, should establish rest and maintain drainage for the diseased organ.

5. The comfortable after course of these cases, the low primary mortality, and the permanent curative results following the operation comprise its complete justification.

FIBROMA OF MASTOID, AURICLE, AND AUDITORY CANAL.*

By THOMAS R. POOLEY, M. D.,
NEW YORK.

The patient, a Polish Jew, twenty-nine years of age, was admitted to the New Amsterdam Eye and Ear Hospital, July 28, 1903. He states that thirteen years ago I removed a growth from behind his ear and auditory canal, and that there was no return of it until two months ago.

On his admission to the hospital, there was found a large, elastic growth, situated behind the ear, close to the attachment of, and extending for some distance on the posterior surface of, the auricle, of about the size of a pigeon's egg; also another filling the meatus, and extending for some distance into the auditory canal, about the size of an olive. In the operative procedure the growth from the canal was first removed by dissecting it out with scissors as far back as possible; this was followed by considerable hæmorrhage, which was controlled by plugging the canal. An incision was then made, following the line of attachment of the auricle, from above downward. The integument was dissected back, exposing the tumor, which was firmly adherent to the cartilaginous concha. This was carefully dissected away, but, as it was firmly adherent to the posterior wall of the auditory canal, an opening was made into it, connecting the two wounds. The operation throughout was difficult, because of hæmorrhage, and the intimate relation of the posterior attachments of the growth to the concha and upper part of auricle. After the operation had been performed, the wound was united with fine black silk sutures, the canal packed with iodoform gauze, and a roller bandage tightly applied.

On July 30th, at the first dressing, the wound seemed to have united. On July 31st another growth was removed from the canal. On August 2nd, the posterior wound was breaking down, and an abscess was collecting below the lobule. On August 4th, an incision at the angle of the jaw was made and considerable pus removed. A connection was made through this incision with the auditory canal and a gauze tent inserted. On August 7th, the patient's condition was about the same, the posterior wound suppurating and the auditory canal again becoming refilled with tumor and granulations. At this time I left the city and the case was treated by Dr. Cook, the house surgeon. On August 10th, another incision and curettement were made, increasing the length of the incision at the angle of the jaw. No pus was found, but a phlegmonous condition of the parts could be seen and was removed. Not much improvement followed. On August 14th, the patient had severe headache, dizziness, and nausea, indicating labyrinthine involvement.

At this period of the case, Dr. Cook began treatment by the x ray, which was followed by an immediate improvement in the patient's general condition, the pain, dizziness, and headache gradually disappearing; and, by September 9th, the wound back of the ear had entirely healed, suppuration had ceased, and there was but little of the growth to be seen in the meatus. At this time I returned to the city, was surprised at the improvement made by the patient, and had the x ray treatment continued for a time. The patient, however, soon became so well that he discontinued further attendance, and was lost sight of. I have not seen him since, but as he was persistent in his pursuance of the treatment while suffering any discomfort, I infer that he is virtually cured.

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* Read at the Meeting of the American Otological Society, July, 1904.

An examination of the tumor, made by Dr. Edward B. Coburn, pathologist to the New Amsterdam Eye and Ear Hospital, shows that the specimens consist almost entirely of dense connective tissue. Certain portions are abundantly supplied with large blood vessels.

The pathological diagnosis was fibroma. The clinical diagnosis was sarcoma, which is not sustained by this report, notwithstanding which, the course of the disease, with its frequent relapses, and the length of time required to secure a healing, show at least, to my mind, the malignant character of the disease.

Paget, *Surgical Pathology,* 1860, long since proposed the name Recurring Fibroid Tumor for a group "the chief characteristics of which are that their general aspect very closely resembles that of the common fibrous tumors; their microscopic structure consists of corpuscles, caudate and elongated, as if developing into fibres; and the most striking feature in their history is their proneness to return after removal."

At all events, there is in this case no well defined border line of distinction between malignant and benign, except in the microscopical examination.

Until I had the experience afforded by this case, I was decidedly agnostic as to the good effects of the x ray in malignant growths. There can, however be no doubt whatever that the relief afforded to the patient by its use in this case was immediate, and that the reparative process, so long retarded, was also promptly begun when the x ray treatment was instituted.

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Lectures and Addresses

INTERNAL SECRETIONS.*

By WILLIAM HANNA THOMSON, M. D., LL. D.,

NEW YORK.

(Concluded from page 967.)

Now, to refer such massive nutritive changes in cases of acromegaly, like this, to loss of function by disease of a body which itself weighs only five to ten grains, and only one lobe of which has a glandular character, seems to me quite fanciful. No derangements of heart, lungs or liver, or of all three of those great organs combined, ever at any stage in their development modify nutrition on such a scale. Only the clearest and most cogent evidence, therefore, of the connection of such extraordinary phenomena with disease of this structure could make it at all credible. Koch's rules about the identification of a given disease with a given microorganism, should also hold here in at least two particulars, namely, that no case of acromegaly should fail to show disease of the pituitary, on the one hand; and on the other, that in every instance in which this body is found disorganized, acromegaly should also be present. But the evidence here breaks down in both these respects. As to the first rule, Souza Leite found that in only three out of seven cases of acromegaly was the pituitary body diseased, while Erb, Weir Mitchell, Anders, and Hinsdale, report cases of destruction of the pituitary body, and Dr. Stewart, of Montreal, two cases, which were unaccompanied by acromegaly. We cannot but concur, therefore, with the opinion of Professor Dreschfeld, that disease of the pituary body is a common accompaniment of acromegaly, probably secondary to the hypertrophy of the bony structure in which it is situated, rather than that it bears a primary causative relationship to this strange affection itself.

I would, instead, refer the disordered body growth of acromegaly, not to a deranged internal secretion, but to quite another class of facts in nutrition, the laws governing which, however, are yet unknown. When the testicles of young animals are removed, the subsequent development of the body is profoundly modified. Oxen, for example, differ as much from bulls in build and appearance as if they belonged to a different species. Some ascribe this difference to the absence in the one, and to the presence in the other, of an internal secretion of the testicles. A more probable theory is that to which the doctrines of Weissmann lend support, namely, that the germ, or race propagation, cells differ generically from the somatic, or body, cells. While the two kinds of cells live together in the lifetime of the individual, the body cells are much influenced in their development by the presence of the germ cells; but if freed from that influence, the bodily development will proceed along different lines. In other words, normal growth of the body, as a whole, represents the sum of the mutual interaction in growth of the different organs of the body with one another. This seems to afford a more probable connection than the hazy hypothesis of the agency of an internal secretion of some one gland or glands. In the case of acromegaly, therefore, we may have a general derangement of the normal balance of the processes of nutrition, which derangement may or may not include among its effects the functions of one or more of the ductless glands. It is in keeping with this view that in acromegaly persistent thymus and other lymph gland derangements, as well as abnormal conditions of the thyreoids, are frequently found.

There remain for our consideration the two most important of internal secretions, and which we have reason to believe the body can never do without, their glandular structures, therefore, being permanent, namely, the internal secretion of the pancreas and that of the adrenals.

In some respects, the pancreas stands at the head of all secreting glands. In specific gravity its secretion is exceptionally high, 1,030 and upwards, compared with saliva, 1,002 to 1,006, or bile, 1,010. Of all the great array of the secretions of the alimentary canal from the mouth downward, the flow from this gland possesses the widest range of solvent properties, acting energetically on fats, starches, and proteids. It was something of a surprise, therefore, to learn that the pancreas did a great deal more besides, and that quite apart from the active secretion which it pours into the intestine, it contained within its substance another class of cells, grouped, as it were, into little islands, now called the islands of Langerhans, which contributed nothing to the flow from the gland's duct, but instead seemed to add directly to the blood a substance which simply prevented death from the dread disease diabetes. Of all diseases, diabetes mellitus is the most tantalizing in the number of questions which it raises regarding its pathology. Fifty years ago Dalton, in the preface to his physiology, spoke most hopefully of Claude Bernard's discovery, in 1848, of the sugar making function of the liver as offering the promise of the speedy explanation of diabetes. Ever since that date we have repeatedly seemed to be on the verge of important discoveries relating to it, only to find that our uncertainties, instead of being dispelled, had simply taken other forms, which in turn have started new problems. We now know that the pancreas has a great deal to do with the origin of diabetes, and we wish that we could say that it had all to do with it, so that we might have some rest on the subject. But, unfortunately, the end is not yet, and the best we can do is to state the facts first, to see how far they carry us toward this end, then how far they come short of it.

Bouchardat, in 1885, drew special attention to the frequency of pancreatic lesions in persons dying from diabetes, but in 1889 von Mering and Minchowski surprised the medical world with the remarkable results of experimental excision of the pancreas. First, if the whole gland was excised, the animals at once were seized with diabetes in its most typically severe form. Great thirst, great polyuria, and rapid emaciation set in, with sugar ranging in the urine from 8 to 18 per cent. After a time the high ratio of sugar declined, but then appeared the worst signs of diabetes in man, namely, diacetic acid, acetone, and oxybutyric acid. Another accompaniment also of severe diabetes was that if all carbohydrates were excluded from the food, still glycosuria persisted, with nitrogenous increase in the urine, showing that the proteids of the tissues were being split up to form sugar.

These original researches were supplemented by numerous other investigators who not only confirmed them, but also established another remarkable fact, which clearly demonstrates that the mode of action of this internal pancreatic secretion differs materially from the principle of secretions in general, in that the effects are not dependent upon the quantity of the secretion itself. If only one fourth or even one fifth of the pancreas is left in the body, no diabetes occurs; and if the whole pancreas is excised, but a piece of it is engrafted under the skin, or implanted in the peritoneal cavity, that also will suffice to prevent diabetes. This shows that the internal secretion of the cells of Langerhans is totally unlike the gastric juice, or, for that matter, the pancreatic secretion itself, which enters the intestine, for quantity is an essential factor in those secretions. One fourth the normal quantity of gastric juice would no more suffice for full stomach digestion than a garden could flourish with only one fourth the water needed for its vegetables. The only physical counterpart to the action of this internal secretion is the spread of a fire among combustibles. Given a collection of materials which are ready to burn, and a lighted match is as good as a blazing brand to start things. The requisites then are either that there be enough combustible material, or that this material, if enough, has nothing else about it to prevent it from taking fire easily. We have reason to suspect that something analogous to this is illustrated in both these respects in the relations of the pancreas to the proper oxidation or combustion of sugar. But if such is the relation of this pancreatic secretion to the systemic oxidation of sugar, we can perceive why feeding with fresh pancreas, or administering pancreas extracts, does not have any such effects on diabetes as thyreoid extract, which makes up for thyreoid deficiency in myxœdema. If a house remains cold because the coal in the furnace cannot be made to ignite as usual by a small bundle of kindling wood, the difficulty may be in the quality of the coal, which no increase of kindling wood will remedy. In other words, the processes for the burning up of sugar in the system have more than the one factor of the internal secretion of the pancreas necessary to complete them. In the living body, glycogen is *the* fuel for combustion, and besides its great storing places in the liver and in the muscles, it is found very generally elsewhere. The little islands of Langerhans are usually sufficient to start its combustion with minute quantities of their secretion; but not always, for other things are sometimes needed.

Fifteen years ago, at a "symposium" on diabetes, at a medical gathering in this city, I suggested that we were yet without any knowledge of a seemingly important factor in the problem, and that was the relation of the muscular tissues to the utilization of the saccharine elements of food. The facts which we did know then were that the muscular tissues were virtually the chief generators of animal heat, and that quite apart from their function of contraction and relaxation was their function of oxidation, so that the blood collected from the veins of a large muscle like the glutæus, though the muscle was at perfect rest, yet contained less oxygen and more carbon dioxide than the blood of the right ventricle itself, as this latter was mixed with blood from the great glandular viscera, where oxidation is less active than in muscle. This shows how much burning up of blood contents occurs when the blood is coursing through muscular tissue, and as the chief material for such oxidation consists of carbohydrates, some failure in this muscular function might have much to do with the pathological failure of sugar oxidation in diabetes. This suggestion was received with incredulity, and most of the speakers confined their attention to the supposed relations of the nervous system and of the glycogenic functions of the liver to that disease. But, lately, the interesting researches of Otto Cohnheim have been published, in which he finds that an enzyme is produced in muscle, which, if alone, does not act upon sugar, but when mixed with the secretion of the cells of Langerhans, becomes a very energetic solvent, in the same way that trypsin becomes effective only when conjoined with the kinase ferment in the intestine. This muscle ferment is so energetic when mixed with juice of the pancreas that Cohnheim regards it as quite sufficient to account for the whole process of sugar combustion in the human body under normal conditions.

Doubtless other factors enter into this most complex problem of utilization of the carbohydrates in the living body, but we have adduced enough to show how unlikely it is that this great physiological function depends on only one organ or on one single process of vital chemistry. With reference to the pancreas, Opie has done good work in showing that lesions of the pancreas may not be accompanied by diabetes, provided that the textural changes do not involve the integrity of the islands of Langerhans; but if they do involve them, diabetes then occurs, in his reports at least, in seven out of nine cases. Nevertheless, cases are reported of total destruction of the pancreas, by cancer, for example, and yet without any diabetes. It must be admitted also, that the theory of the exclusive rôle of disease of the pancreas in diabetes cannot hold water, for such a careful observer as Naunyn, in a series of forty necropsies of diabetics, found only one case in which the malady could be ascribed to disease of the pancreas.

Much more satisfactory, as regards completeness, than in the case of any of the internal secretions which we have been considering, is our present knowledge of the products and functions of the suprarenal glands. That these glands are essential to life has been abundantly demonstrated, not only experimentally, but by that very definite and fatal malady, Addison's disease, which is caused by their atrophy. Also, unlike the uncertainties which accompany the use of many animal extracts, the active principle of suprarenal extract can be isolated in the form of a definite chemical body, adrenalin, whose properties can be investigated as readily as those of quinine. These properties are certainly very remarkable. The first fact to which we would advert is the extraordinary minuteness of the dose which is capable of exciting universal arterial contraction, amounting, according to Schäffer, to only $^1/_{800}$ of a grain of the suprarenal extract in an adult man. All experimenters also agree that the active principle does not act on the arteries through their vasomotor nerves, but directly upon their musculature, and that even skeletal muscles do not escape its operation. Its action upon the heart is also very specific, and if the vagi are cut or paralyzed by atropine, the heart's action becomes so violent in striving against the ischæmia caused by universal arterial contraction, and the consequent rise in arterial tension is so enormous, as to suggest the question whether a like combination of a vagus-paralyzing poison with excess of adrenalin may not occur in those grave crises which we encounter in puerperal eclampsia or in the convulsions of acute alcoholism.

These properties of the internal secretion of the adrenals indicate that the vast mechanism of muscle throughout the body, both striped and unstriped, depends for its healthy tone not only upon a constant stream of efferent nervous energy, but equally upon the presence in the blood of this singular substance. The general muscular debility, both cardiac and voluntary, proceeding at last to death from asthenia, which characterizes Addison's disease, sufficiently indicates this. It is confirmed also by as unmistakable benefits from administering suprarenal extract to patients with Addison's disease as from thyreöid extract in myxœdema. I have one patient, a gentleman who has been under my observation for nine years, with all the systemic and cutaneous signs of Addison's disease, who has been enabled to continue his business while taking suprarenal extract, and who immediately feels the loss of it whenever he fails to take it. A similar result has followed in another man, who first consulted me seven years ago, and who also during that time has kept pulmonary tuberculosis in check; also in a third patient, but who has not quite passed two years since it was prescribed. On the other hand, where muscular debility is due to some other cause, I do not find suprarenal extract of much avail. Thus, it has been highly recommended as a tonic for weak hearts. I have given it a full trial for this purpose in my hospital wards, but I cannot confirm these favorable reports, except by hypodermic injection in some cases of sudden heart failure, when its action may be beneficial, though always very temporary. In all cases, however, where failure of cardiac compensation occurs consecutive to general arterial obstruction, it is actually mischievous. As a powerful vasoconstrictor, it has proved useful when applied locally in many affections of mucous membranes, such as epistaxis, rhinitis, hay asthma, chronic as well as acute otitis, etc. It deserves full trial also in hæmatemesis. In internal hæmorrhages, such as those from typhoid intestinal ulcers, and in hæmoptysis, it is of doubtful benefit.

One remarkable effect of experimental intravenous injection of suprarenal extract was first fully described by Oliver, and confirmed by Schäffer, Vincent, and others. It is described by Oliver as an enormous diminution produced by suprarenal extract in the volume of the kidney in Roy's oncometer, amounting to a shrinkage to half its bulk. This condition of the kidney while it lasts cannot but materially interfere with its secretory functions, particularly in its elimination of urea.

I may state here that I have been interested for some years in the investigation into the cause of the high tension pulse in so many conditions of kidney disease, and I am now convinced that this high tension sets in too soon to be primarily the result of any textural change whatever in the arterial walls themselves. In repeated instances of an acute, gradually changing to a chronic nephritis, I have found the tension remain all along the same as at first, while in patients who recover, increased tension is quite the last symptom to disappear. Therefore, if high pressure can be assigned as a leading factor in producing changes in the arterial walls, ranging from endarteritis and arteriosclerosis to atheromatous degeneration, that factor of strain is present from the very beginning of the renal disorder, rather than as a late consequence thereof. This has led me to reverse the steps in the ætiology of many common forms of arterial degeneration, so that instead of regarding endarteritis, as I formerly did, as the cause of high tension pulse, it is rather high tension which causes the endarteritis, of course, most signally in the arterioles. I now believe in this being the true order in the genesis of most vascular sclerotic changes, and that we possibly have been misled by the coexistence of high tension with extensive endarteritis obliterans into regarding this symptom as generally the mechanical result of channels blocked by gross alterations in their walls. That after such organic changes have actually occurred, the accessible arteries will be found overfull and tense, goes without saying, but what we would emphasize is that the arterial ischæmia antedates the sclerosis, and owns quite another cause for its production.

The primary cause of high tension pulse in nephritis must be that the blood becomes charged with an agent with the property of inducing universal arterial constriction, that is, all over the body, in the internal viscera as well as in the extremities. The almost erectile tissue of the kidney, therefore, would be one of the first to feel this constricting effect. One result of this condition would necessarily be that the consequent strain on the left ventricle of the heart would be much greater than would be caused by any mere discrete through extensive changes in the walls of the main arteries. Moreover, it seems very probable that such a generally acting agent may alone cause sudden or acute dilatation of the heart, as I have noted in a number of instances when the most typical symptoms of acute cardiac dilatation went along with high tension pulse in arteries which were everywhere contracted, but, nevertheless, perfectly smooth throughout.

From the now demonstrated physiological effects of adrenalin, it would seem not an improbable surmise that the continued high tension of the pulse in many forms of nephritis is due to a persistent excess of adrenalin in the blood. This excess in turn may be naturally supposed to be occasioned by stimulation of the adrenals by the inflammatory irritation of the neighboring great glands, the kidneys, with which the adrenals are not only topically associated, but may be functionally so as well. If this is so, the importance of this pathological association is certainly great, as the chief element in the causation of the cardiac and vascular complications of renal disease, especially those accompanying chronic interstitial nephritis. The inference is certainly reasonable that a high tension pulse goes with a contracted kidney; and that a contracted kidney is, *pro tanto*, incapable of a normal excretion of urea. If, therefore, the kidney is only functionally contracted, or partially so, from the action upon it of some agent in the blood, and not yet too far sclerosed, the administration of an efficient vasodilator ought to be followed by an increased excretion of urea. This would then be a palpable test, free from the uncertainties which so often surround inferences from clinical observations on the effects of drugs, for the greater or less quantity of urea is a simple fact and not a theory. Accordingly, I have made a series of observations, some of which I have from time to time published since May, 1903, on the effects upon urea excretion of full doses of aconite, administered every three or four hours, to patients with chronic kidney disease, marked by high tension pulse, and in the majority of them with accompanying cardiovascular changes. I chose aconite, because I regard it as the most certain vasodilator which we possess; and in saying so, I merely wish to remark that as a veteran teacher of materia medica, I have long held that laboratory experiments on animals as regards the various cardiovascular agents are too beset with sources of fallacy to have them set aside the conclusions from careful clinical observations on man. I venture to say that any one who can recognize high tension when it is present in the pulse will find that tension yield more certainly and more permanently when the aconite dose begins to tell than by any other agents, except veratrum viride or free venesection. The superiority in this respect of aconite to the nitrites is very marked, for even with the tetranitrite of erythol in full doses, the change in the pulse is too evanescent and too irregular to allow it to be compared with aconite in real efficiency against the chronic high tension of nephritis. Besides the cases already published, I have a number of others in both hospital and in private practice where the elimination of urea has been systematically followed up for months at a time, with the effect of the increase of urea being double, triple, and quadruple the amount excreted before the aconite was given, along with control experiments in some cases of leaving off the aconite for periods of from three to six weeks, when the elimination would gradually drop to its former low level, and then return again when the aconite was resumed. Along with this there is a like improvement in the other renal symptoms, such as disappearance of casts and of albumin and general rise in the excretion of solids. As might be expected, the most marked effects of aconite are in patients with contracted kidneys. In parenchymatous nephritis, with much albuminuria and dropsy, the effects of aconite are less appreciable, for in some of these patients the excretion of urea is but little diminished. When such patients, however, have high tension pulse and thickened arteries, aconite is indicated.

Finally, this subject of the relation of the adrenals to arterial high tension has recently received some interesting experimental confirmation. Jorsé, of Paris, in 1903 (*Presse médicale*, November 18, 1903), published the results of repeated injections of adrenalin in rabbits, with the invariable effect after two months of inducing in them extensive atheromatous changes in the aorta and in the large arteries. These experiments have been repeated on an extensive scale by the younger Erb, and he also had the same results, with the production of arteriosclerosis in the smaller vessels. On the other hand, it is much to be desired that the condition of the adrenals should be carefully examined in all cases of kidney disease. Coplin has reported that in a number of cases of human arteriosclerosis he found the presence of lesions in the adrenals, and similar accounts are now becoming frequent in medical journals.

In conclusion, I would briefly refer to the evidently important relations of the nervous system to the organs which are concerned with the elaboration of internal secretions. I have not done so before because when we ascribe anything to the nervous system, we have not much to say further. The "how," so to speak, of a nervous anything is quite beyond us. But at least we can trace some of the connections between the secretory glands and certain departments of the great nervous mechanism. This is particularly the case with the thyreoid gland, whose circulation has long been known to be very susceptible to lesions or irritation proceeding from certain tracts in the medulla. Filehne divided the anterior fourth of the restiform bodies, and succeeded in producing exophthalmos, even after division of the sympathetic, with occasional enlargement of the thyreoid. Other experimenters have produced similar results, especially of late Tedeschi, who says he has produced artificial Graves's disease in dogs by lesions in the same region as Filehne did. Meantime a not uncommon attendant on surgical operations upon the thyreoid is a remarkable and very fatal complication, to which the name of acute thyreoidism has been mistakenly given. The symptoms of this state are, that though the patient may have been put to bed in good condition after the operation, the temperature soon begins to rise to 102° to 103°, in twenty-four hours to 104°, and then continues on to 106° and 107°, until it may reach shortly after death 110°. Simultaneously great restlessness develops, with the pulse running from 130 to 200, and the breathing becomes very hurried and superficial. The consciousness generally remains clear to the end, death being sudden from heart failure or from rapid pulmonary œdema.

This so called acute thyreoidism has been adduced as a further confirmation of the theory of excessive thyreoid secretion in Graves's disease, by ascribing these fatal symptoms to a sudden poisoning from direct inoculation of thyreoid juice into the torn vessels, or from too free absorption, caused by the necessary handling of the gland during operation. In a former publication on Graves's disease, in 1896, I showed that this theory rested upon at least three unproved assumptions, and that all the symptoms of this condition, including the fatal hyperpyexia, had repeatedly been observed following upon disturbance of bulbar centres from totally different afferent irritations than any which could be related to the thyreoid, such as 45 published cases of death with these accompaniments following upon washing out of the pleura, and some ten others following upon washing out of the stomach.

The theory of acute thyreoid poisoning, in fact, has recently received its quietus by the published experience of our fellow member, Professor B. Farquhar Curtis, who to avoid this supposed acute thyreoidism which had occurred in three cases out of eleven thyreoidectomies which he had performed for Graves's disease, thereupon tried to substitute sympathectomy instead. But out of seven sympathectomies which he performed, two patients died with all the symptoms of this "acute thyreoidism," although both cutting into and handling of the thyreoid in the operations had been carefully avoided, so that it might safely be said that not an extra drop of thyreoid secretion had entered the blood.

We all know how glycosuria follows upon bulbar irritation, and undoubtedly too many cases of confirmed diabetes have been published as consequent upon some nervous strain for us to doubt that the conjunction is more than a coincidence. But just what the relation is of the nervous system to the genesis of true diabetes remains unknown. It is interesting, however, to learn that Kaufmann has demonstrated that the secretion of the islands of Langerhans becomes inoperative after section of the spinal cord at the level of the first dorsal vertebra, or at least that after such section diabetes does not occur when the pancreas is excised.

I am inclined to ascribe the browning of the skin in Addison's disease to implication of the solar plexus in the morbid process which destroys the adrenals. When these glands become tuberculous or cancerous, extensive exudations occur around them, which often involve the neighboring great sympathetic ganglia, so that some writers have ascribed the chief accompaniments of Addison's disease to this fact. This doubtless is a mistake, and yet when we consider how the rapid changes in the color of the skin among some animals, as the chameleon, have been shown to be caused by a nervous mechanism, I can accept the view that the pigmentation of Addison's disease, of some cases of Graves's disease, and in some forms of diabetes, are manifestations of deranged nervous functions rather than that they depend upon special blood toxines.

I beg to say, in closing, that no one could be more aware than myself how cursory has been this review of the extensive subject of the internal secretions. Constantly checked by the sense that an evening discourse imposes a time limit like some moral duty, I have found it difficult with such a theme to decide what to omit. It certainly was not from want of appreciation of the great importance of modern discoveries about internal secretions that I have been led to point out in this discourse so many limitations to our present knowledge of them. Instead, I am sure that these discoveries are but the first instalments of many more yet to come, and which are sufficiently indicated now to make some of us—like myself—of the older men in the profession, murmur at the fate which caused us to be born too long ago to share in so much of that knowledge about this wonderful human body which our younger contemporaries are bound hereafter to enjoy.

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An Atlanta, Ga., Partnership.—Dr. J. D. Thomson has associated himself with Dr. William E. Campbell, a well known oculist of Atlanta. Dr. Thomson is a graduate of Jefferson Medical College of Philadelphia.

Our Subscribers' Discussions.

A SERIES OF PRIZE ESSAYS.

Questions for discussion in this department are announced at regular intervals. So far as they have been decided upon, the further questions are as follows:

XXXIV.—How do you treat internal hæmorrhoids without an operation? (Answers due not later than December 1st.)

XXXV.—What is your experience in the therapeutical use of yeast? (Answers due not later than January 16, 1905.)

XXXVI.—How do you treat bunions? (Answers due not later than February 16, 1905.)

Whoever among our subscribers (with the limitations mentioned below) answers one of these questions in the manner most satisfactory to the editor and his advisers will receive a prize of $25. No importance whatever will be attached to literary style, but the award will be based solely on the value of the substance of the answer. It is requested (but NOT REQUIRED) *that the answers be short, if practicable no one answer to contain more than six hundred words.*

Only subscribers to the NEW YORK MEDICAL JOURNAL AND PHILADELPHIA MEDICAL JOURNAL *(including regular and volunteer officers of the Medical Corps of the United States Army, Navy, and Marine Hospital Service, commissioned or under contract) will be entitled to compete, and all persons known to be engaged in medical journalism are disqualified. This prize will not be awarded to any one person more than once within one year. Every answer must be accompanied by the writer's full name and address, both of which we must be at liberty to publish.*

The prize of $25 for the best essay submitted in answer to question XXXIII has been awarded to Dr. W. N. Bispham, of the Army Medical Corps, whose article appears below.

PRIZE QUESTION NO. XXXIII.

THE TREATMENT OF VARICOSE VEINS OF THE LEG.

By W. N. BISPHAM, M. D.,

FIRST LIEUTENANT AND ASSISTANT SURGEON, UNITED STATES ARMY.

The treatment of varicose veins should, at the first, be divided into palliative and operative. Palliative treatment, in my opinion, cannot be often used, except in cases of extreme age or where the physical condition of the patient precludes operative interference. It could be used in the early stages of the disease if we saw the cases at that time, but it has been my experience that patients never present themselves for treatment until they are incapacitated for work, and their cases are therefore too far advanced for palliative treatment to have much effect. This treatment consists of supporting bandages, rubber or muslin, or an elastic stocking, combined with massage and free movements of the bowels.

The operative treatment is the one most often used, and the one which I usually recommend if the veins are much enlarged. The different operations most often used at the present day are subcutaneous ligature, ligation of the saphenous vein at the point where it enters Scarpa's triangle, removal of the entire internal saphenous vein (this being the vein most often involved), Schede's operation, and removal of enlarged sections of the veins. Subcutaneous ligature is not often used, and I should never recommend it. In such an operation one must work very much in the dark, and that is not necessary in these days of aseptic surgery. High ligation of the saphenous vein is one which has become more popular of late, and it is very useful under certain conditions. As is well known, the internal saphenous vein and its branches are the vessels most often affected, and where the dilation is general along the entire vein it is sometimes very effective if a more extensive operation is objected to. But it is of little use if there is free communication between the cutaneous vessels and those deeper down in the tissues. In performing this operation a small linear incision is made just below Scarpa's triangle, parallel to and to the outer side of the vein if it is palpable under the skin. After the integument is incised the vein is found by blunt dissection and is ligated with catgut. Perfect asepsis must be used here, on account of the danger of femoral phlebitis.

Removal of the entire saphenous vein is sometimes said to be very necessary when the whole vessel is dilated and high ligation has not been successful, but I have not as yet seen a case which could not be relieved by simpler procedures. The risk of infection is much greater than in any other operation, and I see no advantage to be gained by removing the entire vein.

Schede's operation, that of making a circular incision around the entire limb and ligating the veins as they are encountered, has not found much favor in my sight, though it has often been preferred by the best surgeons. I can see very little improvement over the simpler high ligation of the saphenous vein, unless there exists a condition of dilatation affecting the entire cutaneous venous system of the leg, which condition is of course a great rarity.

Removal of enlarged sections of veins is to my mind the most rational operation that can be performed in the great majority of cases. Most patients seen have sections of the veins much more enlarged than others, and I have been in the habit of removing these sections. I usually remove not more than six inches through each wound, for I have found that longer wounds give the surgeon more trouble to coaptate properly.

After the preparation of the leg for operation, including the shaving of the entire limb, a linear incision of the length of the portion of vein to be incised, is made to either side of the vessel. This is done to avoid accidental wounds of the vein, which would be frequent if the incision was made over the vessel, on account of its close proximity to the skin. After carefully dissecting the vein out with the handle of a scalpel or other blunt dissector, it is tied with catgut at both extremities of the wound and then removed. The incision is then closed with a subcutaneous suture of silk or silkworm gut and dressed aseptically. Great care must be exercised to prevent infection and also to see that the saphenous nerve is not included in the ligature. After the wounds have healed, which occurs in about a week, a tight bandage is put on the limb and kept there for at least a month, so that the remaining veins will be supported long enough to adapt themselves to the new conditions. I have operated on numbers of soldiers by this method and have not as yet encountered a recurrence, though a soldier's life is such that he is on his feet most of the time, thereby giving his veins a great deal of work to do.

To summarize: The best treatment to be used for varicose veins which are sufficiently enlarged to give trouble to the patient is an operation, and the best operative procedure is either excision of enlarged portions of the veins or high ligation, with greater prospect of success with the former.

FORT LOGAN, COLO.

Dr. J. A. Nydegger, of the Public Health and Marine Hospital Service, writes:

The treatment in this condition will be either palliative or operative, depending on the amount of discomfort and pain to the patient, the degree and extent of the varicosity, and such complications as may occur in connection therewith. When I see a case of varicose veins, and there are no existing complications, I first advise and resort to palliative treatment. This consists in applying support to the part involved, perhaps the elevation of the affected limb in a limited number of cases, so as to the assist the venous current to overcome the force of gravity, and directing the patient if advanced in years to rest in the recumbent position at stated intervals. A light, snugly applied bandage extending from the foot upward as far as is necessary to thoroughly cover and support the distended vessels, put on in the morning after rising and removed at night on going to bed, will in a certain number of cases prove to be all that is desired, thus relieving the discomfort and preventing further enlargement of the veins. In the same way I use the elastic stocking, which is more artistic and requires less time to put on and remove, and probably gives firmer and evener support to the parts. When these simple measures furnish relief and comfort to the degree desired I go no further than to recommend their use at intervals or constantly as may be indicated. If, on the other hand, these measures are not sufficient and the vessels are increasing in size, becoming more painful, and threatening to break down and ulcerate, or if the condition is in persons whose occupation compels them to be on their feet a great deal of the time, and the enlarged veins are confined to the leg below the knee, I recommend and do the Schede operation. This operation consists in making a circular incision under antiseptic precautions at the upper third of the leg through the skin and connective tissues clear around the leg, cutting all the superficial veins down to the superficial fascia. The veins are not ligated, as the atmospheric pressure plus the pressure of the bandage will absolutely control all bleeding. In cases where the varicosity extends above the knee and involves the internal saphenous vein and its branches, I do a modified Schede operation. In this, three slightly oblique incisions, three or four inches in length, are made over and exposing the saphenous vein, the upper one being made a few inches below the saphenous opening, another about halfway down the thigh, while the third is made just above the junction of the two large veins near the knee joint. The vein is then cut between clamps in the upper incision, and while exerting traction on the distal end of the vein with the clamp, a forefinger is introduced in the incision and passed around the vein, loosening up and separating it as far down as possible from the connective tissue surrounding it; then, inserting the finger in the next incision below and working upward, I release the vein in the same manner as above, and with a long-handled dressing forceps passed upward under the skin from below, grasp the distal end of the now loosened vein and draw it downward and out through the incision. In like manner the vein is freed between the second and lower incision and is drawn out intact and cut off. To complete the operation the Schede circular incision is then done below the knee as above described. In this operation, as in the former one mentioned, no ligatures are applied to the veins save to the proximal end of the saphenous if so desired.

(*To be continued.*)

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Acetanilid in fine powder has been found of considerable efficacy as an addition to dusting powders intended for application to old sores.

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CATHELIN'S TREATMENT OF URINARY INCONTINENCE.

Cathelin's plan of treating incontinence of urine consists in injecting a liquid into the vertebral canal at the junction of the lumbar and sacral portions of the vertebral column. It is intended chiefly for the cure of the nocturnal incontinence of children, but it seems also to exercise some control over abnormal frequency of urination during the waking state. Its efficiency has been attributed to distention, with consequent stretching of nerve filaments, and this seems to be the rational explanation of the success that has followed injections of a "physiological" solution of salt. But Dr. Cantas, adjunct professor of surgery in the University of Athens (*Presse médicale*, October 1st), seems to be of the opinion that, while the distention theory is true so far as it goes, better results may be obtained by using a weak solution of cocaine, whereby the irritability of the lumbar and sacral plexuses and of certain sympathetic fibres is obtunded.

Cantas gives brief notes of fifteen cases in which Cathelin's "epidural," or, as he would prefer to call it (for no very good reason, it seems to us), "paradural," treatment was employed. A cure was effected in thirteen of them, and in the two others the incontinence was ameliorated. In several instances one injection alone was sufficient, but in some others a repetition was necessary. In no instance does he seem to have employed more than three injections. Cantas thinks it advisable not to repeat the injection until the recurrence of incontinence indicates the need of doing so, and he bases this advice on the desirability of avoiding the impairment of susceptibility to cocaine that the too frequent use of the drug may occasion.

But even when cocaine is used, according to Cantas, a certain bulk seems to be needed. As a general thing, he thinks that as much as ten cubic centimetres of the solution (about two teaspoonfuls and a half) should be injected. He has found no difficulty in the procedure, except that in one instance the needle of the syringe became clogged with coagulated blood, and he reports that in no case were any unpleasant effects produced. In view of the stubbornness of nocturnal incontinence under medicinal treatment, it would not be strange if the "epidural" injections were to come into extensive use.

THE "COW POX" OF THE SIERRA LEONE.

In the November number of the *Journal of the Royal Army Medical Corps* Major W. Mould describes a single case of an eruptive affection which he has been unable to identify with any of the exanthemata described by authors. He had previously seen some Mendi carriers whom he had at first supposed to be affected with smallpox, but his headman, an educated Sierra Leone native, had separated them into two groups, one of which he called "smallpox boys" and the other "cow pox boys." The major kept the two classes apart, thinking that perhaps the "cow pox boys" had chickenpox of a severe type. The men were not ill, and they soon recovered. It is stated that the eruption was not pustular.

The single case that he subsequently met with, and was able to observe more carefully, was that of an educated Mendi, a corporal, twenty-four years old, who bore no marks of either vaccination or smallpox. He said that he had had a chill at night and that a rash appeared on the following morning. On the morning of the second day thereafter he arrived at Major Mould's post, having in the mean time travelled more than forty miles—on foot apparently—so that he could not have been very ill. At the time of his arrival he said he had not felt ill, and he had no rise of temperature, but his tongue was furred and his eyelids and some other parts of his face were swollen. The face, upper limbs, and trunk were covered by a rash, and there was a little of it on the lower limbs. It was thickest on the face, where it had first come out, and it itched intensely. It had come out in crops of small, superficial papules, not shotty, on which vesicles formed about the third day. The vesicles were unilocular, and they were not umbilicated. The case "did not appear at all like chickenpox, and the Colonial dispenser, a Sierra Leone man trained at Freetown, said it was cow pox."

"Perhaps," says Major Mould, "a 'new disease' may be found to exist on the West Coast of Africa among the natives." Manifestly the affection described by him is not what we designate by the name of cow pox, and it would be interesting to know its real nature. Some of its features seem to suggest impetigo contagiosa.

OVARIAN HERNIA IN LITTLE GIRLS.

Hernia of the ovary giving rise to urgent symptoms might be supposed to be very rare in little girls, but Dr. K. Gaugele (*Deutsche Zeitschrift für Chirurgie*, lxxiii, 1904; *Revue mensuelle des maladies de l'enfance*, November), who records a case of his own, has made a study of that one and of eight others that he has been able to find in literature, dealing chiefly with the symptomatology.

He finds that when there is torsion of the pedicle the trouble as announced by a sudden and painful increase in the size of a tumor generally preexisting in the inguinal canal, which increase may or may not be accompanied by phenomena of inflammation of the skin overlying the tumor. The swelling, which is generally hard and of an ovoid form, is irreducible and tender on pressure. There is not much disturbance of the general condition, but there are signs of peritoneal irritation, such as agitation, vomiting, and sometimes tympanites, but no abdominal pain. The temperature either remains normal or is only slightly elevated. The bowels continue to perform their functions, and diarrhœa is sometimes observed; if, on the other hand, there is constipation, it generally yields to enemata. Hernia with torsion is occasionally observed in girls less than a year old.

As regards treatment, if the hernia is reducible, the application of a retentive bandage is to be employed. If it is not reducible, and especially if it is complicated with symptoms resembling those of strangulation, an operation must be performed and the ovary be replaced within the abdomen, but it should be removed if its vitality seems to be compromised.

THE DUTIES AND FUNCTIONS OF STATE BOARDS OF MEDICAL EXAMINERS.

What are the functions and duties of a State board of medical examiners? Do the boards properly perform their duties and functions, and do they justify the purposes for which they were created? These questions seem to me pertinent at the present time. It will be generally agreed that the boards were originally created for the purpose of guarding the portals which lead to the practice of medicine and of admitting to practice only those who could demonstrate their fitness. That it is the duty of the State to protect its people from incompetent and dangerous individuals who profess ability to engage in occupations which place in their hands either the lives or the property of the people, has long been recognized. Pilots, sea captains, locomotive engineers, lawyers, and insurance companies have long been required to demonstrate their fitness before they were permitted to carry on the business in which they sought to engage. It was recognized, too, that in licensing such individuals or corporations, not only were the people being protected from incompetency and fraud, but the interests of those whose skill and financial solvency and general integrity had been demonstrated were also being protected. The establishment of State boards of examiners, then, was for the purpose, not only of protecting the public from the ignorant and dishonest who are ever seeking to prey upon the credulity of those whom they may attract to them by specious promises to cure their ills, but also, it seems to me, for the purpose of protecting legitimate practitioners, who had acquired their ability to treat disease, by the expenditure of much time and money, from the competition of those who did not possess any such ability, who had spent neither time nor money on an education, and whose claims of special knowledge of medicine were spurious.

Now let us see what the average State board of medical examiners really does. It conducts examinations at stated intervals during the year, and receives a good fee from each applicant for a license. These examinations are usually rigorous, and a high percentage of marks is required for passing. Who are the applicants who come up for these examinations? Probably ninety per cent. of them are graduates of medical colleges, where they have spent three or four years in study and in clinical work, and where before they have received their degrees they have passed satisfactory examinations. In other words, the applicants who are either licensed by the State boards or are rejected for failure to pass the examinations are those who have been educated in medicine and who are presumably fit to practise. Occasionally it happens that the very evidently uneducated and unfit attempt to pass these examinations and are very promptly and justly rejected. But the majority of those who fail are those who have previously passed similar examinations and fall down because of certain difficult or unusual questions or because of their unfamiliarity with certain insignificant technical details of the theory or practice of medicine, which are comparatively unimportant as bearing upon their ability to practise. Others who fail are practitioners, of long and often honorable standing, who seek to move from one State to another, and who find themselves unable to pass an examination which consists of questions upon subjects concerning which nothing was known when they studied medicine or which they have long since forgotten.

The charlatan, the pretender, the medical " confidence man," the this or that " path " with some newly discovered and wonderful system of practice, pays no attention to the board, but hangs out his sign, buys all the newspaper space he can afford, and gathers in the money from his deluded victims, unmolested, and when he has thoroughly worked one community he merrily moves on to another, where, still unmolested, he carries on the same game. The board of medical examiners attempts an occasional (usually unsuccessful) prosecution of these unlicensed and unfit practitioners, but according to my observations most of them at the present time pay but little attention to this phase of their duty, but devote themselves exclusively to the examining of the presumably competent men who apply for a license. Granted that convictions for illegally practising medicine are difficult to secure, this, it seems to me, is no reason why attempts to secure them should not be persisted in. We are told that county attorneys, whose duty it is to conduct these prosecutions, are unwilling to do so. There is a remedy for this. The county attorney who declines to perform the duties for which he is paid by the county may be impeached. The board also may employ its own attorney. We are told that these unlicensed quacks, who as a rule make no use of internal remedies, are able to successfully maintain their claim that they do not practise medicine because they do not give medicine internally. It is true that the definition of the practice of medicine is in a most unsatisfactory condition. Certain learned (?) judges have solemnly held that a man who treats disease without administering remedies internally is not practising medicine. The legislature of the great State of Minnesota, a State which adopted the first medical practice act, recently passed a bill legalizing the practice of " osteopathy," giving those who chose to call themselves " osteopaths " the right to treat all manner of diseases, so long as they gave no medicine internally, and at the end of the bill solemnly declaring: " Osteopathy is hereby declared not to be the practice of medicine." I suppose a legislature might declare (no one can stop them from declaring anything they like) that trying cases in a district court was not the practice of law. Would the lawyers stand it? A legislature might declare that offering to pay a certain sum to the estate of an individual after his death, in consideration of certain sums annually paid by the individual during his life, was not the business of life insurance. Would the insurance companies stand it? It is certainly possible for a proper definition of the practice of medicine to be obtained in every State where there exists a medical practice act, and to have that definition sustained by the supreme court of that State. To obtain such a definition is, it seems to me, one of the most important duties of a State board of medical examiners, and when such a definition is obtained, vigorous prosecution of the unlicensed practitioners cannot fail of success.

Briefly, then, it seems to me that the functions of a State board of medical examiners are to scrutinize fairly, but not hypercritically, the qualifications of those whose previous education and record would indicate that presumably they are fit persons to practise in that State, and to prosecute vigorously and unrelentingly all persons who have had no such education, but who hold themselves out to the people as possessing ability and knowledge which the State board knows that they do not possess, and who offer to cure diseases which are incurable or to cure them by means which medical science does not recognize. If I am right, few State boards in this country perform their functions and duties as they should. BURNSIDE FOSTER.

ONE REAL DANGER OF THE SUBWAY.

The general scare concerning the atmosphere of the subway seems to have blown away, but a menace to health remains that augments with the passing days. We refer to the nasty habit of spitting, the disgusting evidences of which are becoming more manifest as travel increases. At present it is apparently confined to the darker portions of the subway passages and stairways, but as the offenders grow bolder will probably spread over a more extended area. If there is any place in the city where our severe ordinance against promiscuous spitting needs to be rigidly enforced, it is in the closed subway, and we hope the police and magistrates will show no mercy to the unforgivable offenders. We are surprised not to have seen a notice in any part of the subway forbidding spitting.

A REDUCTIO AD ABSURDUM.

It is pitiable to think that the civil service examining board of the city of New York, which not long ago rose up against an excellent appointment by the Board of Trustees of Bellevue and Allied Hospitals, should now be entertaining the idea of subjecting to its examination the eminent gentlemen who have consented to give the Health Department their aid in the study of pulmonary diseases.

THE AIR OF THE SUBWAY.

The published result of Professor Chandler's examination into the quality of the subway air will doubtless go far toward reassuring the public mind, which, for that matter, had not been greatly disturbed over the matter. It is gratifying to learn that Commissioner Darlington does not personally dissent from Professor Chandler's conclusions, though he is said to think it incumbent on him to get further skilled testimony.

RECENT PUBLICATIONS OF THE BUREAU OF ANIMAL INDUSTRY.

Among the publications that should be particularly interesting to sanitarians is a pamphlet entitled *The Fat Testing of Cream by the Babcock Method,* by Mr. E. H. Webster and Mr. C. E. Gray, of the Dairy Division. Among those that will prove of value to veterinarians are a pamphlet on *Milk Fever; Its Simple and Successful Treatment* and one on *Mycotic Stomatitis of Cattle,* both by Dr. John R. Mohler, chief of the Pathological Division.

Obituary.

THOMAS S. K. DROWN, M. D.,

OF SOUTH BETHLEHEM, PA.

Dr. Thomas S. K. Drown, president of Lehigh University, died in South Bethlehem on November 16th, after a series of operations for intestinal obstruction. Dr. Drown was born in 1842 and studied in the medical department of the University of Pennsylvania, the scientific schools of Yale and Harvard, the mining school of Freiburg, Saxony, and the University of Heidelberg. He was professor of analytical chemistry in Lafayette College from 1874 to 1881 and from 1885 to 1895 in the Massachusetts Institute of Technology, whence he resigned to accept the presidency of Lehigh University. Dr. Drown was secretary of the American Institute of Mining Engineers for ten years and subsequently became its president: he was a member of many other scientific bodies in Europe and America. Dr. Drown was universally popular among professors and students. He had endowed four scholarships in the Central High School of Philadelphia, where his education began.

News Items.

Society Meetings for the Coming Week:

MONDAY, *November 28th.*—Medical Society of the County of New York; Lawrence, Mass., Medical Club (private); Cambridge, Mass., Society for Medical Improvement; Baltimore Medical Association.

TUESDAY, *November 29th.*—Rome, N. Y., Medical Society; Boston Society of Medical Sciences (private).

WEDNESDAY, *November 30th.*—Auburn, N. Y., City Medical Association; Berkshire, Mass., District Medical Society (Pittsfield).

THURSDAY, *December 1st.*—New York Academy of Medicine; Brooklyn Surgical Society; Society of Physicians of the Village of Canandaigua, N. Y.; Boston Medicopsychological Association; Obstetrical Society of Philadelphia; United States Naval Medical Society (Washington); Medical Society of City Hospital Alumni, St. Louis; Atlanta Society of Medicine.

FRIDAY, *December 2nd.*—The Manhattan Clinical Society; Practitioners' Society of New York (private); Clinical Society of the New York Postgraduate Medical School and Hospital; Baltimore Clinical Society.

SATURDAY, *December 3rd.*—Manhattan Medical and Surgical Society, New York (private); Miller's River, Mass., Medical Society.

NEW YORK

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending November 19, 1904:

	November 12.		November 19.	
	Cases.	Deaths.	Cases.	Deaths.
Measles	59	3	83	7
Diphtheria and croup	362	27	323	36
Scarlet fever	201	8	174	15
Smallpox	1	..	4	..
Chickenpox	77	..	114	..
Tuberculosis	299	154	275	147
Typhoid fever	100	21	107	18
Cerebrospinal meningitis	..	11	..	13
	1,099	224	1,080	236

Dannemora State Hospital.—Dr. Robert D. Lamb, of the Dannemora State Hospital, has been appointed medical superintendent of the Matteawan State Hospital, succeeding the late Dr. H. E. Allison.

Kings County Medical Society.—Professor William Osler addressed this society on November 15th, taking as his subject The Acute Tuberculous Pneumonia. Previous to the lecture Professor Osler was the guest of a number of members of the society at a dinner at the Union League Club, of Brooklyn.

New York and New England Association of Railroad Surgeons.—At the conclusion of the meeting of this association at the Academy of Medicine on November 17th, the following officers were elected: President, Dr. G. P. Conn, of Concord, N. H.; secretary, Dr. H. D. Dana, of Cortland, N. Y.; treasurer, Dr. J. K. Stockwell, of Oswego, N. Y.

Proposed Sanitarium for Bath Beach.—A number of physicians in Brooklyn borough held a meeting recently to discuss the proposition to establish a sanitarium in the Bath Beach and Bensonhurst section, and if the proposition should be favorably received, the big brick building known as the Majestic, at Cropsey and Twenty-third Avenues, will be secured and fitted up.

The New York State Medical Association, New York County.—A stated meeting of this association was held on November 21st, at the New York Academy of Medicine, with the following order: Executive session; scientific session; presentation of clinical cases or reports, pathological specimens, new instruments, etc. Papers, The Dangers of the X Ray, by Milton Franklin, M. D.; The Medical and Surgical Features of the Russo-Japanese War, by L. L. Seaman, M. D.; a collation. William Ridgely Stone, M. D., secretary.

New York Orthopædic Dispensary and Hospital, 126 East Fifty-ninth Street. The trustees of the New York Orthopædic Dispensary and Hospital announce that the surgeon in chief, Dr. Russell A. Hibbs, will give a course of clinical lectures on orthopædic surgery at the institution, on Tuesday and Thursday afternoons, at four o'clock, from December 6th to January 5th (both inclusive). The course will be free to the medical profession and students. August Heckscher, chairman of committee on clinical instruction.

The East Side Physicians' Association of the City of New York.—A stated meeting of this association was held in Odd Fellows' Hall, 67 and 69 St. Marks Place, on Friday, November 18th, at 8.30 p. m. Programme: Presentation of cases, specimens, and reports; exhibition of bacteriological cultures from the stomach, with remarks by Dr. E. Palier; the adhesive plaster dressing of the abdomen and the indications for its employment; with demonstration on a patient, by Dr. Achilles Rose; paper, Tubal Abortion, by Dr. H. C. Coe. Discussion by Dr. C. A. Von Ramdohr, Dr. H. J. Boldt, Dr. H. N. Vineberg, Dr. A. Brothers, Dr. B. Gordon, Dr. F. A. Dorman, Dr. M. Caspe, and other members.

Medical Society of the County of New York.—A stated meeting will be held on Monday, November 28th, at 8.15 p. m. Programme: Address of the Retiring President, Wendell C. Phillips, M. D.; The President's Inaugural Address, by Henry S. Stearns, M. D.; papers, Recent Clinical Studies of Uterine Fibroids; A Plea for Early Operative Intervention, by Arnold Sturmdorf, M. D.; Recent Pathological Studies of Uterine Fibroids, by Thomas L. Cullen, M. D., of Baltimore; Fibroids and Pregnancy, by S. Marx, M. D.; Operative Technique for Uterine Fibroids, Abdominal, and Vaginal, by J. Riddle Goffe, M. D.; discussion opened by Dr. H. C. Coe and Dr. A. Palmer Dudley.

The Late Dr. Henry Tuck.—At a stated meeting of the Medical Association of the Greater City of New York, held November 14, 1904, a report from the committee appointed to prepare a suitable minute in regard to the death of Dr. Henry Tuck, one of the charter members of the association, was received and adopted. The first part of the report was devoted to a biographical sketch of Dr. Tuck, and the concluding portion was as follows:

Although Dr. Tuck took a very active part in the management of a life insurance company, he always retained his interest in medicine and in the friendships he had formed with members of his profession. He was greatly interested in the Society for the Relief of Widows and Orphans of Medical Men, and for many years acted as its treasurer; giving up this position only last winter, when failing health compelled him to do so. Those who were intimately connected with Dr. Tuck, both in his business and in his professional life, will always remember him as an unusually competent, faithful, and successful man in whatever he undertook. (Signed)

John P. Munn, chairman,
Richard H. Derby,
W. Gill Wylie,
P. Brynberg Porter, recording secretary.

Reported Check to the Pneumonia Commission.—The Civil Service Commission has ruled that the commission of medical experts appointed last year by the city authorities to investigate cases of acute respiratory diseases in the city with a view to lessening them, cannot employ assistants in other cities unless the physicians so employed first come to New York and undergo a municipal civil service examination. The ruling has surprised the expert commission, which comprises Professor William Osler and Professor William H. Welsh, of Johns Hopkins University; Dr. Edward G. Janeway, of New York University; Dr. T. Mitchell Prudden and Dr. L. Emmett Holt, of the College of Physicians; Dr. Frank Billings, of Rush Medical College, Chicago; Dr. John M. Musser, of the University of Pennsylvania; and Dr. Theobald Smith, of Harvard. To pay the expenses of the commission's work the Board of Estimate made an appropriation of $10,000 to assist them in their researches. The members of the commission asked leave to appoint without competitive examinations physicians of Baltimore, Philadelphia, and Boston to collect data, statistics, and other material of value to them from those centres of population. It was proposed to pay these physicians $100 a month. The Civil Service Commission refuses the request.

The Late Dr. William Rice Pryor.—The faculty of the New York Polyclinic Medical School and Hospital, through its committee, appointed at the annual meeting, held November 10, 1904,

Hereby resolves: That the death of Dr. William Rice Pryor, professor of gynæcology in the New York Polyclinic Medical School and Hospital, which occurred on August 25, 1904, was a great loss and sorrow to the faculty of the Polyclinic and to his many friends.

Graduated from Princeton College in 1878, from the College of Physicians and Surgeons in New York in 1881, and from Bellevue Hospital in 1882, Dr. Pryor was particularly well equipped for his life work and the eminent position he attained in the special branch of medicine to which he gave his attention was due in no small degree to this thorough preparation.

His ability, perseverance, originality, and thoroughness were recognized by all who knew him, and will always serve as a stimulus to his fellow workers.

Throughout his entire career he was in the highest sense the friend of the needy and afflicted. The amount of time he devoted to charity work was enormous, and in many instances, where those under treatment could not afford to pay for little delicacies needed, he supplied them from his own purse, besides giving his services free. His attention to details and his personal supervision and care of those he treated was most painstaking.

His services to the Polyclinic were most valuable. Appointed as Clinical Assistant to the Chair of Gynæcology in 1886, he filled all the intermediate positions most creditably until in 1895 he was made full Professor of Gynæcology. His clinics drew students from all over the country, and his writings attracted marked attention both at home and abroad. He was a frequent contributor to medical literature and shortly before his death had completed a Textbook of Gynæcology.

We assure his bereaved family of our deepest sympathy, and do hereby resolve that this record be inscribed at length upon the minutes of the faculty, that it be published in the medical journals, and that a copy, suitably engrossed, be sent to the family of our late colleague. W. R. Townsend, chairman; J. Riddle Goffe, Brooks H. Wells, committee.

PHILADELPHIA.

The Health of the City.—The following contagious diseases were reported for the week ending November 12th:

	Cases.	Deaths.
Typhoid fever	55	3
Scarlet fever	105	1
Smallpox	2	0
Chickenpox	76	0
Diphtheria	77	9
Measles	13	0
Whooping cough	9	1
Tuberculosis of the lungs	47	52
Pneumonia	38	42
Erysipelas	8	1
Puerperal fever	1	0
Tetanus	2	3

The total death rate for the week was 422, in an estimated population of 1,408,154, corresponding to an annual death rate of 15.59 per 1,000. The following deaths were reported from other infectious diseases: Tuberculosis other than tuberculosis of the lungs, 5; dysentery, 2; diarrhœa and enteritis under two years, 17. There were 88 deaths in children under two years of age; 76 under one year, and 12 from one to two years. There were 21 stillborn males and 13 stillborn females, a total of 34. No unusual meteorological phenomena were recorded by the weather bureau.

Scientific Society Meetings for Week Ending December 3rd.—Monday, November 28th, Mineralogical and Geological Section, Academy of Natural Sciences. Thursday, December 1st, Obstetrical Society.

University of Pennsylvania Medical Society.—A regular meeting of the University of Pennsylvania Medical Society was held on November 18th at the residence of Dr. Charles H. Frazier, 133 South Eighteenth Street. There was a genral discussion upon the course of study of the fourth year, which was followed by refreshments and a social hour.

Bequests to Charities.—The estate of Eliza W. S. P. Field was adjudicated in the Orphans' Court, Philadelphia, on November 14th. The University of Pennsylvania was allowed $4,000 in trust for the maternity hospital and $4,000 for general uses and purposes.

By the will of Raphael Brunswick $200 has been bequeathed to the Jewish Foster Home and $100 to the Jewish Maternity Home.

Special Lectures at the Philadelphia County Medical Society.—Pursuant to a resolution offered by Dr. J. Madison Taylor last spring, the Philadelphia County Medical Society appointed Wednesday, November 16th, as the date for two special lectures. Dr. George B. McClellan spoke of the Relations of Anatomy to the Needs of the General Practitioner, and Dr. Albert P. Brubaker talked of the Nervous Mechanism of the Heart Beat.

Philadelphia County Medical Society.—The following was the programme of the Philadelphia County Medical Society meeting, held November 23rd: A Case of Trachoma Successfully Treated With X Rays, by Dr. W. S. Newcomet and Dr. J. T. Krall; Typhoid Fever in Philadelphia, by Dr. Randolph Faries; The Value of the X Rays in the Diagnosis of Obscure Pains in the Wrist Joint, by Dr. L. J. Hammond; Pulmonary Syphilis Simulating Tuberculosis, by Dr. William E. Hughes and Dr. Robert N. Willson.

Typhoid Fever in Philadelphia During October.—During October, 325 cases of typhoid fever were reported to the bureau of health of Philadelphia, an average weekly rate of about 6.3 cases per 100,000 population. During this period not one case was reported from that section of West Philadelphia supplied with filtered water from the Belmont plant. In that portion of West Philadelphia to which filtered water is not yet supplied, on account of the insufficient capacity of the Belmont plant, the incidence of typhoid fever corresponded to 7.84 per 100,000.

The Jefferson Medical College Library.—The report of the librarian of Jefferson Medical College Library for the year just ended showed some very interesting and noteworthy facts concerning the contents and circulation of the college library. There were 3,009 volumes in the library, of which 439 were added during the year; 233 by gift, and 236 by purchase and binding, the largest gift being seventy-eight volumes from the library of the late Dr. C. W. Horner. There are fewer than 2,000 volumes of general textbooks in the library, and from these there was a circulation of 10,663.

Mütter Lecture on Surgical Pathology, College of Physicians of Philadelphia.—The Mütter Lecture for 1904 will be delivered in the Hall of the College of Physicians, northeast corner of Thirteenth and Locust Streets, Philadelphia, on Friday, December 2nd, at 8.30 p. m.; Dr. George H. Monks, assistant visiting surgeon, Boston City Hospital, lecturer on surgery, Harvard Medical School; subject, Studies in the Surgical Anatomy of the Small Intestine and Its Mesentery. Physicians are cordially invited to be present. John H. Brinton, M. D., chairman; George McClellan, M. D., J. Alison Scott, M. D., committee of the Mütter Museum.

Case Against Dr. McKee Dropped.—In the case of Dr. J. A. McKee, referred to in these columns last week, who was accused of giving a vaccination certificate to a child who did not show a suitable mark on her arm, the defendant was discharged. The defense was that the child had been vaccinated by Dr. McKee three years before and he issued the certificate on that vaccination without examining the child's arm. The act of assembly requiring a successful vaccination for admission to the schools has no time limit in it and if the physician has once successfully vaccinated the child he cannot be held under that act. As we said last week, the health department should make a ruling that children who have been vaccinated may be admitted to school pending the successful issue of the operation. The health department should remind its assistant medical inspectors that a large vaccination mark does not necessarily mean a successful operation. Vaccinations sometimes become infected. Further, a successful vaccination may have a small mark which may later disappear, whilst the protection of the individual persists.

Smallpox at the League Island Navy Yard.—Recently a case of smallpox appeared in one of the crew of the U. S. S. *Alabama,* which is undergoing repairs at the League Island Navy Yard. The case occurred in a man who had just returned from a furlough of ten days; but in which he had slightly overstayed his time. His delay was explained by a letter which he brought with him and which he presented to the medical officer immediately on his arrival. This letter stated that the man had been exposed to variola, but that he had beeen detained twelve days without evidence of infection having appeared. He was immediately isolated and three days later the eruption developed. The patient was at once sent to the municipal hospital, although the case was a very mild one. It is the custom in the navy to vaccinate every man at his enlistment, whether it be a reenlistment or a first enlistment; in consequence the crews of the ships in the navy are always very well protected. In case a vessel enters a badly infected port, however, it is customary to revaccinate all hands. The crew of the *Alabama,* therefore, has nothing to fear from a general outbreak of smallpox.

The Affairs of the Frankford Hospital.—The Frankford Hospital was incorporated in March, 1903. The applicants for the charter were Joseph P. Ball, M. D.; Charles P. Brady, M. D.; Frank Walters, M. D.; John W. Wilkins, M. D., and Stirling Wilson. The latter subsequently withdrew, and Charles M. Stiles, M. D., and R. Bruce Burns, M. D., were elected. These seven persons then constituted its membership, board of directors, and medical staff. The hospital was shortly thereafter located in a residence purchased by the corporation, situate at the corner of Sellers and Penn Streets, Frankford. Dr. Burns became its president, and largely through his efforts, numerous subscriptions were made to the hospital.

A ladies' auxiliary was formed, which in the course of its work, thought, as the hospital depended for its support entirely upon the public, that it would be both expedient and wise to have a lay board of trustees to manage its affairs. This was proposed to the directors, but was not treated with favor at first; however it was subsequently promised, but in consequence of temporizing, it resulted in a rupture between the directors and the auxiliary. Meanwhile quite a large number of citizens who had subscribed funds to the hospital, in amounts of from $50 to $500, petitioned the directors in writing for membership in the corporation, claiming that they were entitled thereto under the provisions of the charter, which instrument sets forth that "members of the association shall consist of the following: first, life members, which shall include the corporators and all other citizens who have subscribed $50 to the funds of the corporation." "The said life members, when duly elected, shall have the right to vote at the annual meetings of the corporation." The directors did not grant the petition, however, but declined to elect these contributors. Thereupon the president, Dr. Burns, resigned. Now the hospital seeks to amend its charter for several purposes, and several of these contributors have filed a protest in court against further privileges to this corporation; one of the objections urged is that the corporation has wilfully ignored its charter obligation, in denying the right of membership to its contributors; also that by the proposed amendments, annual elections for trustees are not required, the board itself filling its vacancies, thereby perpetuating itself without the voice of the membership. The above facts were supplied us by one of the contributors who adds that the real trouble appears to depend upon the apprehension that the medical members of the board of directors might lose their positions on the hospital staff if a voice and a vote were given the contributors. The relation between the professional and the lay members of hospital corporations has been, in the past, productive of much friction and discontent. The medical men who organized this movement in a portion of the city in which, it is said, a hospital is needed, appear to have profited by the experiences of others. It is not proper for them, however, to disregard their promises. It is better, in our judgment, for the lay members of such a board to yield their opinions to the judgment of the medical men who are their colleagues in the board.

GENERAL

Change of Address.—Dr. A. L. Chapin, to Niagara and Third Streets, Niagara Falls.

Itch in Chicago.—An epidemic of the itch is said to have broken out on the South Side of Chicago, seventy cases having been reported on one day recently.

Lecture by Dr. George M. Gould.—Dr. George M. Gould, of Philadelphia, lectured on Hygiene of the Home before the Rochester, N. Y,. Association, on November 14th.

Chicago Eye, Ear, Nose, and Throat College.—At the last regular meeting of the board of directors of this college, E. J. Brown, M. D., was elected to the Professorship of Histology.

Diphtheria and Leprosy in Montreal.—Over fifty present cases of diphtheria are reported from Montreal; there have been nearly 500 cases since the beginning of the year. There were two cases of leprosy, both in one ward.

Professor Osler's Successor.—A report is current that Dr. William H. Welsh, professor of pathology at Johns Hopkins, will succeed Professor Osler as professor of medicine on the latter's departure for Oxford, England.

New Hospital for Cambridge, Md.—The new Cambridge, Md., hospital was dedicated on November 16th. The necessary funds were furnished largely by a bequest of the late John E. Hurst. The building overlooks the Choptank River.

Report of Connecticut State Board of Health for October.—Among other items reported are the following cases of infectious disease: Measles, 33 cases; scarlet fever, 126; cerebrospinal fever, 3; diphtheria, 15; whooping cough, 3; typhoid fever, 94; consumption, 12.

St. Luke's Hospital, Chicago.—The trustees of St. Luke's Hospital have decided to build a deaconesses' home on the site of the present institution, 1426 Indiana Avenue. The plans provide for a three story structure of pressed brick and stone.

St. Luke's Hospital, Utica, N. Y.—At the third annual meeting of St. Luke's Hospital Clinical Association on November 3rd, the following officers were chosen: President, Dr. George Seymour; vice-president, Dr. William M. Gibson; secretary and treasurer, Dr. William K. Schuyler.

Awards to the Wellcome Physiological Research Laboratories.—It is announced that the Awards Committee of the Louisiana Purchase Exposition has conferred one grand prize and one gold medal upon the Wellcome Physiological Research Laboratories, of Herne Hill, London, Eng., for bacteriological research and preparations, and for educational work.

Army Surgeons to Study Japanese and Russian Methods.—It is stated that the army general staff has decided to dispatch United States army surgeons as attachés to the Japanese and Russian armies operating in the far east, providing the consent of the authorities can be secured. The military observers already in the field with the belligerent armies have already reported so many interesting facts touching the operations of the medical departments of the two armies that it has become evident to the general staff that there has been almost a revolution in field hospital methods as a result of the war as far as it has gone, and it is regarded as desirable that the United States medical department should lose no opportunity of gathering lessons from the great conflict now going on with a view to improving our own army medical service.

Southern Illinois Medical Association.—Officers were elected on November 4th at the meeting of the Southern Illinois Medical Association, after which the association adjourned to meet at Mount Vernon next year. The officers elected were: President, Dr. J. W. Armstrong, of Centralia; vice-president, Dr. J. L. Wiggins, of East St. Louis; second vice-president, Dr. D. C. Grizzel, of De Soto; treasurer, Dr. T. E. Telford, of Olney; secretary, Dr. E. E. Fyke, of Centralia; assistant secretary, Dr. C. W. Lillie, of East St. Louis.

National Association for the Study and Prevention of Tuberculosis.—At a meeting of the board of directors of the National Association for the Study and Prevention of Tuberculosis, held in New York, November 16, 1904, it was decided to hold the first annual meeting of the association in Washington, D. C., on the third Tuesday of May, 1905; that arrangements be made for a two days' meeting, in which there should be one or two general sessions with distinguished speakers upon the broad topics of tuberculosis, and special meetings of the three following sections: Sociological; Pathological and Bacteriological; Clinical and Climatological; and that, so far as possible, these sectional meetings should not conflict one with another, each section to be presided over by gentlemen distinguished in their respective work, and only papers of undoubted merit and interest to be presented. The membership of the association includes a large proportion of the most eminent workers in the subject of tuberculosis throughout the country, and it hopes to make its first annual meeting an important one in the crusade in this country against tuberculosis.

Statement of Mortality in Chicago, Ill., for the Week Ending November 19, 1904, compared with the preceding week and with the corresponding week of 1903. Death rates computed on United States Census Bureau's estimated midyear populations of 1,932,315 for 1904 and of 1,873,880 for 1903:

	Nov. 19, 1904.	Nov. 12, 1904.	Nov. 21, 1903.
Total deaths, all causes	479	413	467
Annual death rate per 1,000	12.95	11.17	12.99
By sexes—			
Males	292	231	256
Females	187	182	211
By ages—			
Under 1 year	84	78	74
Between 1 and 5 years	36	32	34
Over 60 years	105	76	102
Important causes of death—			
Acute intestinal diseases	17	26	15
Apoplexy	13	17	17
Bright's disease	48	25	27
Bronchitis	20	11	12
Consumption	56	47	45
Cancer	23	25	22
Convulsions	9	5	14
Diphtheria	8	13	15
Heart diseases	33	33	53
Influenza	3	0	1
Measles	4	3	2
Nervous diseases	16	13	19
Pneumonia	66	57	70
Scarlet fever	1	2	2
Suicide	9	4	4
Smallpox	2	4	0
Typhoid fever	8	10	8
Violence (other than suicide)	31	32	25
Whooping cough	3	4	0
All other causes	109	84	116

Although there were 66 more deaths from all causes reported than during the week previous the mortality rate is still satisfactorily low. The excess was caused chiefly by Bright's disease, 23 more, and by bronchitis, consumption, and pneumonia, 9 more each.

Pith of Current Literature.

LYON MEDICAL.

October 30, 1904.

1. Mucomembranous Enteritis of Traumatic Origin, By VINAY.
2. Mercurial Injections, By LANNOIS.

1. **Traumatic Enteritis.**—Vinay says mucous enteritis is a syndrome, acute or chronic, characterized by constipation, the passage of glairy mucus, and by paroxysmical crises. It is commonest in women, and is doubtless greatly influenced by heredity. The writer reports three cases, in two of which recovery was only partial and not permanent. The third case terminated favorably. All were marked by constitutional depression, nervous symptoms, and hysteria. The first two cases were caused by strong lifting movements, the third by a fall, the traumatism affecting the region of the cæcum or colon. Vinay's treatment is tonic by iron, strychnine, and arsenic, the last under the form of sodium cacodylate; gently laxative by liquorice powder, sulphur, castor oil; antispasmodic, by cannabis indica. An old remedy, buckthorn, has proved valuable. Intestinal lavements may be required in fœtid diarrhœa or putrid fermentation. In pain the opiates should never be used, but mustard plasters, hot compresses, etc. The diet should be that usually prescribed in hyperchlorhydria. Gentle massage of the abdomen, warm baths, rest in the open air, and suggestive therapy are all valuable.

2. **Mercurial Injections.**—Lannois says that to be ideal these injections should have a maximum specific effect and minimum local and toxic effects. The solution should be rich in mercury, easily absorbed, non-toxic, as simple as possible, and should contain no anæsthetic. Mercury benzoate is Lannois's favorite as a soluble salt; when an insoluble salt is required, calomel is preferable. Injections are especially valuable where immediate and powerful action is required. They have enlarged the scope of mercury in syphilis, but have their limitations.

ZENTRALBLATT FUER CHIRURGIE.

October 8, 1904.

1. Operation for Cryptorchidism, By S. RUFF.

1. **Cryptorchidism.**—Ruff incises the inguinal canal obliquely and opens it, exposing the testicle and the spermatic cord and carefully avoiding the bloodvessels. He bluntly dissects an opening in the scrotum and very carefully fixes the testicle in this cavity. He closes the inguinal canal in such a way that the spermatic cord is compressed to produce venous congestion of the testicle. He does not suture the testicle to the bottom of the scrotum, as it is useless to attempt to fix a movable object to a point which is itself not fixed.

GAZZETTA DEGLI OSPEDALI E DELLE CLINICHE.

October 16, 1904.

1. The General Clinical Conception of Gastrectasiæ (*To be continued*), By S. MIRCOLI.

2. The Mode of Precipitation of the Antibodies and Its Relation to Pathology, By DARIO MARAGLIANO.
3. The Specific Treatment of Tuberculosis, By GIUSEPPE SORIANI.
4. Hæmoantitoxine in the Treatment of Pulmonary Tuberculosis, By G. NICCOLINI.

2. **Precipitation of Antibodies.**—Dario Maragliano's researches concern themselves with the question as to whether the precipitate which is obtaining on mixing a serum immunized against a special substance, with that immunizing substance takes place in the immune serum, or in the liquid used for immunization. The bodies which precipitate when serum of an animal that has been immunized by injections of the serum of another animal, is added to the normal serum of the second animal, are called precipitins. The prevailing opinion to-day is, that this precipitation occurs at the expense of the immunizing substance, and not of the immune serum. In other words, that the active substance in the act of precipitating the sediment is the immune serum and not the immunizing substance, when the two are mixed. Maragliano, however, was able to prove the exact opposite of this, by means of ingenious experiments. He added the serum of a man to a certain amount of the serum of a rabbit that had been immunized against human serum, in such a manner that the two serums overlay each other in a test tube, the human serum being the heavier of the two. He found that the precipitate occurred in the immune rabbit's serum, at the point of contact of the two liquids, and that the cloud increased upward, until the entire rabbit's serum was cloudy. This experiment he controlled in various ways too involved to be mentioned here. It is astonishing that such an astute observer as Hauser has come to exactly the opposite conclusions with similar experiments, but the latest researches of Moll confirm the conclusions of Maragliano to the full extent. It appears probable, therefore, that in the act of obtaining a precipitin by the routine method, it is the immune serum which is the passive agent in the transaction, and the immunizing serum which is the active element that causes the precipitation to take place. Maragliano adds a preliminary note on the diagnosis of cancer of the stomach by means of precipitin reactions. The animals were immunized as follows for this purpose: The patient was given a certain prescribed diet, and his stomach was washed thoroughly in the evening. Next morning he was given a wineglassful of physiological salt solution, and the stomach contents was aspirated. This liquid was examined for albuminoids. If it contained any, it was used for immunizing rabbits, by injecting 15 c. c. of it into the animals twice a week. To the resulting serum a little solution of human serum (1:50) was added. A precipitate formed usually, which was centrifugated and removed. To the remaining clear liquid still more solution of human serum was added, and this was the immunized fluid used in the test. To this fluid the author added the gastric juice of cancer cases, and in half an hour obtained a precipitate. This precipitate did not occur if gastric juice of non-cancerous patients was added.

4. **Hæmoantitoxine in Tuberculosis.**—Niccolini reports good results in a number of cases of tuberculosis treated with hæmoantitoxine. This antitoxine has been described in abstracts of previous issues of *Gazzetta degli Ospedali* in this column. It is essentially made up of the bloodclots of immunized calves, etc., which clots are dried and administered by mouth. According to Niccolini, who endorses the opinions of Figari, the originator of this treatment, the antitoxine in question increases the nutrition and the weight of the patient, increases the agglutinating power of his serum, combats the toxic symptoms, and impedes the progress of the infection.

RIFORMA MEDICA.

October 26, 1904.

1. On the Diagnostic Significance of Urea and Ammonia in Hepatic Diseases, By S. DE ROSSI.
2. The Radical Treatment of Exstrophy of the Bladder, By G. MUSCOLINO.
3. Therapeutic Considerations on Two Cases of Phlebitis of the Lower Limbs, By RAFFAELLO OTTOLENGUI.

1. **Urea and Ammonia in Diseases of the Liver.**—De Rossi does not attribute to the tests for ammonia and for urea the great clinical importance given them by some authors in the diagnosis of diseases of the liver. He found, as the result of experimental researches, that the liver is not and could not be the sole centre for the manufacture of urea, and that other tissues and organs are concerned in the making of this important element of metabolism. The proportion of urea generated by other organs is related to the cellular masses which they represent and to the amount of nutritional metabolism which goes on in them. In the living organism the albuminous (proteid) molecule takes various ways of forming urea, and does so not only through the intermediate stage of ammonia salts. Indeed, the process of formation of urea in the body is not so simple and schematic as has been recently assumed. The nitrogenous compounds of urine, principally urea and ammonia, behave differently in different cases of liver disease, and this behavior varies, not with the state of the cellular lesions, but with the general conditions of metabolism. The only feature which may be said to be fairly constant in these diseases is the increase of ammonia. But this increase is not in proportion to the cellular lesions, so much as in relation to the condition of the circulation and the acidity of the tissues. Consequently, the ammonia and the urea tests are not of such clinical importance in diseases of the liver as has been claimed.

2. **Radical Operation for Vesical Exstrophy.**—Muscatello reports a case of exstrophy of the bladder, in which he performed a modification of the plastic operation of Maydl, consisting in the implantation of the vesicle trigone, containing the orifices of the ureters, into the pelvic portion of the sigmoid which was partially excluded from the course of the fæces. He believes that this operation presents the greatest possibilities for relief and the least dangers to the patient. It is an ideal operation in that it gives the patient a new

bladder with its own canal for the emission of urine. The chief advantage of this method is that it permanently protects the ureteral openings from contact with the fæces. This is its greatest advantage as compared to Maydl's original method. It must be noted, however, that this method cannot be employed in all cases of exstrophy. It requires certain favorable conditions just as does Maydl's method, namely, that the kidneys be moderately healthy, that the anal sphincter be intact, and that the patient be not too old.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

November 19, 1904.

1. A Series of Mistaken Gynæcological Diagnoses, By Thomas S. Cullen.
2. Œsophagoscopy and Bronchoscopy, By E. Fletcher Ingals.
3. A New Material for Sutures and Ligatures. Tendons from the Leg of the Crane, By Charles F. Kieffer.
4. Retarded Eruption of the Teeth; Their Liberation or Extraction, By M. H. Cryer.
5. Multiple Abscesses of the Omentum. Report of Two Cases, By Hugo O. Pantzer.
6. The Propriety, Indications, and Methods for the Termination of Pregnancy, By Frank A. Higgins.
7. Hypnotic Remedies in Mental Diseases, the Indications Therefor and the Use Thereof, By A. R. Diefendorf.
8. Some Aspects of the Newer Physiology of the Gastro-intestinal Canal, By Lafayette B. Mendel.
9. The New Ophthalmology and Its Relations to General Medicine, Biology and Sociology (*To be continued*), By George M. Gould.
10. Diagnosis Between Pseudomembranous Angina of Syphilis and Diphtheritic Angina, By R. R. Campbell.

1. See this *Journal,* Vol. LXXIX, page 1170.

2. **Œsophagoscopy and Bronchoscopy.**—Ingals reports one case of œsophagoscopy in which he was able to exact from the œsophagus a fleur-de-lis chatelaine pin and one case of bronchoscopy in which he was able to remove a pin partially imbedded in one lung. The article is well illustrated and the necessary special instruments are fully described.

3. **A New Suture Material.**—Kieffer from experiments he has conducted concludes: "The leg tendons of the large grallatorial birds make an excellent suture material; strong enough for all practical purposes, readily made aseptic, slowly absorbable and easily prepared. The source of supply is practically world wide. I believe this new material warrants further investigation. Think of the comfort to the civil or military surgeon in isolated places of knowing that he can have a reliable suture material at the end of his shotgun."

5. **Multiple Abscesses of the Omentum.**—Pantzer reports two cases which he believes are isolated. Both cases occurred in individuals who had been celiotomized for simple, non-inflammatory conditions, and in each instance a general peritonitis had immediately followed the operation. Years had passed after this occurrence before the cases came to the author. Meanwhile the patients had suffered more or less invalidism from abdominal tenderness and pain, and occasional outbreaks of constitutional sepsis, indicating gravity by the attendant fever and extreme systemic depression. Each individual, during the intermission between attacks, showed outwardly little or no evidence of disease. The physical examination in neither instance had given characteristic evidence of unusual pathological conditions before the operation. Characteristic of the condition found, were multiple abscesses strewn through the omentum. The abscesses were small, surrounded by a tissue which macroscopically resembled granulomatous or sarcomatous tissue. Around this there was the thickening of the part of the omentum in which the abscess was situated. Neither of the patients recovered from the operations to which they were subjected by the author. The cause of death was not clear.

6. See this *Journal,* Vol. LXXX, page 135.

10. **The Angina of Syphilis and of Diphtheria.**—Campbell concludes by emphasizing the following points: (1) Pseudomembranous syphilitic anginæ are not rare. (2) The differential diagnosis of pseudomembranous syphilitic anginæ and diphtheria cannot always be made from the clinical picture. (3) Culture tests and the microscope should be employed in all suspected cases. (4) In all cases in which we are highly suspicious of diphtheria, antitoxine should be used promptly while awaiting the maturity of our culture tests.

MEDICAL RECORD.

November 19, 1904.

1. The Bacteria of the Stomach, By E. Palier.
2. Are There Other Causes of Malaria Than Mosquitos? By Junius L. Powell.
3. The Rational Reduction and Fixation of Maxillary Fractures, By William J. Lederer.
4. The Study of Sprain and Its Treatment by Massage, By Gustaf Norstrom.
5. Experiments to Determine the Value of Oxygen in Combination with the Different General Anæsthetics, By James T. Gwathmey.
6. Experiments Upon Cats with the Different Anæsthetics in Order to Determine Their Relative Value When Used with Air and Oxygen, Respectively.
7. Congenital Absence of Vagina, Operation, By A. E. Isaacs.

1. **Bacteria of the Stomach.**—Palier, on the advice of Ficker, of Berlin, has made a study of the bacteria of the stomach. He asserts his belief that the bacteriological examination of the stomach contents should become as routine a method of clinical diagnosis as is the similar examination of the sputum. The author describes his method of work in considerable detail and sums up his conclusions thus: "Carcinoma ventricula is bacteriologically characterized by the following trio: (1) the presence of the vibrio geniculatus ventriculi; (2) the presence of numerous staphylococci; and (3) the absence of fungi, that is, mycelia. In none of the other cases have I met this combination. In simple hypochlorhydria the vibrio geniculatus ventriculi may be found; but any other microorganism

may also be met with, either alone or in combination with it. In hyperchlorhydria, or chlorhydria, yeast and fungi, or rather mycelia, are met with, and also occasionally sarcinæ, and a small bacillus which is Gram negative, and in cultures discharges an ammoniacal odor. In subacidity of the stomach, when the acidity is only subnormal but not negative, with alimentary stasis, I usually found yeast, mycelia, and the vibrio geniculatus."

2. **Malaria and Mosquitos.**—Powell does not dispute the fact that malarial fever is transmitted, usually, by varieties of Anopheles. He evidently believes, though he does not say so in so many words, that the disease may be transmitted in other ways, notably by drinking water. A number of facts are cited to show that this is probably the case. The paper closes with the question: Does it not appear that the ætiology of malarial disease is as yet far from being definitely and conclusively settled?

3. **Fractures of the Lower Jaw.**—Lederer asserts that the best way to maintain fixation in fracture of the lower jaw is by means of the double arch interdental splint and a moulded chin piece which is kept in place by proper bandages. The author, who is a dentist, describes the proper method of obtaining a mould of the teeth from which any good dentist can make the necessary splint. The article is lucid and fully illustrated.

4. **Massage in the Treatment of Sprains.**—Norstrom sums up thus the treatment of sprains by massage (1) At the initial stage in the presence of classical phenomena, including a great deal of pain, effleurage. (2) When the pain has decreased a great deal, frictions and passive movements; later, active movements. Walking at the beginning ought not to be permitted. (3) In all sprains of the lower extremities, after every séance, application of a gauze bandage, a precaution all the more indicated when the patients are allowed to use their legs and walk. (4) In order to prevent real relapses as well as to prevent the inflammation taking on a chronic character, the treatment ought to be kept up until complete restitution has taken place.

5. **Anæsthetics.**—Gwathmey reports a number of experiments upon cats which go to show that "oxygen increases the value of all anæsthetics as regards life, without decreasing their anæsthetic effect."

6. **Experiments Upon Cats.**—This is the heading of a table which is incorporated in the preceding paper by Gwathmey.

7. **Absence of the Vagina.**—Isaacs reports a plastic operation he performed for the purpose of obtaining a serviceable (?) vagina in a woman born without one. The operation consisted in making a hole (three inches deep) in the tissues where the vagina should have been and lining the cavity so obtained partly by means of a skin flap and partly by means of Thiersch skin grafts. ". . . Over three months after operation, examination showed a canal of sufficient calibre to admit two fingers for two and a half inches. The patient stated that coitus was natural and conditions were satisfactory."

AMERICAN MEDICINE.

November 19, 1904.

1. The Sphere of Bacteriology, By EDWIN O. JORDAN.
2. The Postdischarge Mortality Among the Patients of the Adirondack Cottage Sanitarium, By LAWRASON BROWN, and E. G. POPE.
3. The Finsen Light, Röntgen Rays, and High Frequency Electric Currents in Certain Diseases of the Skin; Another Year's Experience, By L. DUNCAN BULKLEY.
4. The After-effects of Hysterectomy on the Nervous System, the General Health, and the Sexual Functions, By J. RIDDLE GOFFE.
5. The Treatment of Basedow's Disease, with Report of a Case, By O. E. LADEMANN.
6. The Treatment of Epithelioma by Means of the Röntgen Ray, By GEORGE C. JOHNSTON.
7. The Cell: Its Character and Functions, By THOMAS CLEMENTS.

2. **Postdischarge Mortality.** — Brown and Pope conclude: (1) The real test of the sanatorium treatment is not the immediate, but the ultimate results. (2) The lack of uniformity in classification renders the comparison or the combination of the results of various sanatoriums extremely difficult. (3) The classification on "the ability to work" is beset by so many difficulties in America that it is rendered of very little value. (4) The mortality among patients discharged in various conditions affords the best method of studying the permanent results of sanatorium treatment. (5) Of those discharged apparently cured, 93 per cent. of the expected living are alive; of the disease arrested, 65 per cent.; of the cases discharged with active symptoms, 23 per cent. (6) The deathrate among the apparently cured patients is during the first ten years about three times the ordinary deathrate. (7) The deathrate among the patients discharged with the disease arrested increases during the first few years to many (10 to 15) times the normal deathrate, but afterward decreases. (8) Nearly half of the patients discharged with an active disease died in the first two years. (9) Patients between 30 and 40, when discharged apparently cured, seem to relapse less than younger patients. This tendency is little if at all marked among the patients discharged with the disease arrested. (10) Incipient cases seem to relapse less than advanced, when both were discharged in the same condition.

3. **Another Year's Experience.** — Bulkley writes a necessarily rather disconnected paper. From it we take a few of his most definite conclusions regarding the present status of various methods of physical therapeutics. (1) Finsen light. The rather brilliant results obtained by Finsen have not been equalled by other observers. This is because at Copenhagen very great care is given to detail. The Finsen method is generally slow. At times as many as 721 treatments, of one hour each, are required. So far the results obtained in lupus from the use of the x ray have been so favorable that it does not seem advisable to take the greater amount of time required for the Finsen treatment. (2) Röntgen ray. The best results are obtained in superficial epithelioma, in lupus vulgaris, and in

late syphilis of the palm. Inoperable and recurrent cases of carcinoma should receive the benefit of the x ray treatment. Epithelioma of the lip should be excised. (3) High frequency currents. For the removal of warts and large port wine stains of the skin this method of treatment is specially applicable. (4) Radium. The author's experience with radium has been limited, yet he is convinced that it has active powers. He has not been able to duplicate, by this method, the brilliant results that have been reported from Paris.

4. **Hysterectomy.**—Goffe advises that whenever possible the ovaries, or parts of them, be left behind in performing hysterectomy. He does not believe that the absence of the uterus alone is capable of giving rise to very serious symptoms.

5. **Basedow's Disease.**—Lademann reports one case of exophthalmic goître that recovered through drinking three pints a day of the milk of a dethyreoidized goat. The treatment of Basedow's disease is reviewed at some length, special care being taken to consider the method adopted by the author. In the author's case improvement in the symptoms was noticeable at the end of ten days. The author concludes: "I do not wish to be construed as saying that in the milk treatment we have found a specific in Basedow's disease, as time alone can determine its value. My case, an unobjectionable one, only adds to its merits, and the brilliant result yielded by the milk is certainly inspiring and worthy of further pursuit."

MEDICAL NEWS.

November 19, 1904.

1. A Case of Enteric Fever Complicated by Polyuria, By J. C. Wilson.
2. Report of the Medical Director of St. Joseph's Sanatorium to the Advisory Board, By E. S. Bullock.
3. Feigned Insanity: Malingery Revealed by the Use of Ether, By Charles G. Wagner.
4. A New Case of Chloroma with Leucæmia, with a Study of Cases Reported Since 1893 (*To be continued*), By George Dock, and Aldred Scott Warthin.
5. Complications of Diphtheria; with Suggestions for the Feeding, Medicinal and Hygienic Treatment, By Louis Fischer.
6. Uncinariasis as Seen in North Carolina; Its Frequency, Ætiology, Pathological Significance, Symptoms, and Treatment, By J. L. Nicholson, and Watson S. Rankin.
7. A Case of Pneumomelanosis, By Frank I. Given.

1. **Polyuria in Typhoid.**—Wilson reports one case of typhoid fever which exhibited a transient non-saccharine polyuria. At the beginning of the second week the total daily quantity of urine passed was about one thousand cubic centimetres. The daily quantity of urine increased gradually until the end of the third week, when it suddenly went up, finally reaching six thousand cubic centimetres on the twenty-eighth day. The daily output then gradually decreased until by the end of the seventh week the total quantity for twenty-four hours was about fourteen hundred cubic centimetres. Apart from the polyuria the case presented no abnormities.

5. **Diphtheria.**—Fischer writes a short and very practical paper on the treatment of diphtheria and its complications. The directions he gives are specific and, within the limits of the paper, few points are left to the imagination of the reader. Much stress is laid on proper feeding and stimulation. The elimination of the toxines by the bowel and washing the blood by hypodermoclysis are important features of the treatment recommended. Two clinical facts should be borne in mind: (1) The temperature alone is not a sure guide as to the outcome of any specific case. (2) The heart is a sure index of the patient's condition, hence the study of the pulse is all important in estimating the prognosis of a case of diphtheria.

6. **Uncinariasis.**—Nicholson and Rankin review the whole subject of uncinariasis. The bulk of their paper is taken up by a discussion of the various theories of the way in which infection takes place. To settle the matter in their own mind they have collected ætiological records of 118 cases, most of which occurred in their own practice. They conclude that ground itch is by far the most important portal of infection, and that dirt eating and contaminated water supply, while capable of infecting, are not nearly so important as ground itch as a source of infection.

BRITISH MEDICAL JOURNAL.

November 5, 1904.

(*Seventy-second Annual Meeting of the British Medical Association.*)

Section of Laryngology and Otology.

1. Introductory Remarks, By C. J. Symonds.
2. Discussion on the Treatment of Non-Suppurative Disease of the Middle Ear, By V. Pritchard, T. Barr, A. Bronner, and Others.
3. The Disturbances of Vision and Development of Blindness of Nasal Origin Induced by Disease of the Posterior Accessory Sinuses, By Professor Onodi.
4. Discussion on the Ætiology, Treatment, and Prognosis of Innocent Laryngeal Growths, By J. D. Grant, A. Rosenberg, N. C. Haring, and Others.
5. On the Local Treatment of Some Forms of Non-Suppurative Catarrh of the Middle Ear by Compressed Air and Nebulizer, By A. Bronner.
6. Menière's Disease: a Clinical and Experimental Inquiry, By W. Milligan.
7. A Case of Congenital Word Deafness, By W. S. Syme
8. Notes on a Case of Mastoid Abscess Five Weeks After Measles: Operation: Recovery, By L. A. Lawrence.
9. Discussion on the Relation of Asthma to Nose Disease, By G. Macdonald, S. West, A. J. Brady, and Others
10. Two and a Half Years' Experience of the Subcutaneous Injection of Hard Paraffin for the Removal of Deformities of the Nose, By J. W. Downie.
11. Some Observations on the Mode of Origin of Nasal Polypus, By E. S. Yonge.
12. Report on Certain Enteric Fever Inoculation Statistics, By K. Pearson.

2. **Non-Suppurative Otitis Media.**—Pritchard classifies non-suppurative disease of the middle ear as follows: 1. Acute non-suppurative otitis media. Counter-irritation behind the ear is most valuable, also gentle politzerization. Instillations

are only occasionally advisable; when used should be strong anodyne solutions, cocaine or morphine, in an antiseptic medium. Heat and leeches are sometimes useful. Incision of the membrane is called for when there is marked bulging. Purgatives are nearly always necessary. Politzerization should always be employed as after-treatment, to restore the hearing and to prevent adhesions. 2. Early stages of chronic non-suppurative catarrh. Here local medicinal treatment is most valuable. Sterile alkaline nasal irrigation is to be preferred to the nasal douche. Inhalations of pine or eucalyptus oil are most valuable. Adenoids, enlarged tonsils, or nasal stenosis should be treated surgically. Climatic treatment is most important, high, dry, and sunny localities being selected. 3. Advanced stages of chronic middle ear catarrh. Here treatment is much less satisfactory, owing to adhesions. Catheterization is preferable to politzerization. All operations have proved futile. Sterile nasal irrigations are of much value, as are also inhalations of the fumes of ammonium chloride. 4. Middle ear adhesions, the result of former acute inflammation. 5. Sclerosis resulting from disease of the bony capsule enclosing the middle ear, and forming the inner wall of the tympanic cavity. This is not a catarrh at all. The treatment of these two latter classes is most unsatisfactory and hopeless.

6. **Menière's Disease.**—Milligan reports three cases of Menière's disease in which the operative removal of the semicircular canals had the most markedly beneficial effects in relieving the vertigo and nausea. In one case the tinnitus persisted, probably due to the fact that the terminal filaments of the vestibular nerve were imperfectly destroyed. Milligan performs a complete radical mastoid operation, and burrs away the semicircular canals. The hearing power is, of course, destroyed, but the patients are enabled to return to work.

9. **Asthma.**—Macdonald affirms that any treatment that allays the irritability of the Schneiderian membrane, whether by operation and the ventilating of abnormally protected areas of mucous membrane, or by hardening the hyperæsthetic areas with the electric cautery, may modify or arrest the onset of the catarrhal attacks, whether they manifest themselves in symptoms of sneezing, laryngitis, bronchitis, or asthma.

West states that asthma is a respiratory neurosis, and closely resembles epilepsy. The relief of asthma by means of remedies applied to a healthy nose, may be compared to the checking of an epileptic fit by tying a garter tightly around the knee. Though relief may be given in a few cases the prospects of cure are small.

11. **Origin of Nasal Polypus.**—Yonge reaches the following provisional conclusions in regard to the origin of nasal polypi: 1. Mucous polypi of the nose, in the majority of instances, are probably consequent upon, and certainly coincident with, inflammation of the mucous membrane of the nasal cavity. 2. The primary mechanical process is a localized œdema of the inflamed mucous membrane, which œdema, on account of certain structural peculiarities of the living membrane, does not, in the great majority of cases, develop in any intranasal area, but that of a portion of the middle turbinal and of the middle meatal regions. Analogous structural peculiarities are present in the mucous membrane of some of the accessory sinuses. 3. The determining cause of the occurrence of the œdema, in the regions specified, is the degeneration and cystic dilatation of the mucous glands. 4. The particular shape which polypi usually assume, their number, probably the appearance in some instances of recurrence, and other special peculiarities of these growths, are due to the œdematous mucous membrane being thrown into folds, and to the normal folds becoming œdematous. Certain of the folds quickly increase in size by the absorption of serous fluid and favored by gravity, and finally present the appearance of ordinary mucous polypi. 5. The polypoid outgrowths, which take origin on the inferior turbinal, and more rarely on the sæptum, generally differ markedly in microscopic structure from mucous polypi, and although they claim a common inflammatory origin, these conditions are distinct, principally on account of the dissimilar structure of the nasal regions from which they respectively take origin.

12. **Inoculation in Typhoid.**—Pearson, the professor of mathematics in University College, has made a study of certain typhoid fever inoculation statistics. These came from two sources (India and South Africa) and fell into two groups (incidence and mortality). Looked at from a purely statistical point of view, the data indicate that a more effective serum or effective method of administration must be found before inoculation ought to become a routine practice in the army.

LANCET.

November 5, 1904.

1. Cancer of the Larynx, By SIR F. SEMON.
2. The Red Light Treatment of Smallpox: a Reply, By the Late N. R. FINSEN.
3. On the Serum Therapeutics of Cases of Snake Bite, By G. LAMB.
4. A Remarkable Sequel to a Case of Gastroenterostomy, By A. E. BARKER.
5. Suture of Wound of the Heart, By E. SOMERVILLE.
6. On Hæmophilia and Its Treatment, By L. GRANT.
7. A Case of Hysteria Major: the Nemesis of "Dowieism," By J. S. MACKINTOSH.
8. Outbreak of Enteric Fever, the Result of Infected Ice-cream, By W. G. BARRAS.
9. A Case of Acute Inversion of the Uterus; Reduction by Taxis on the Seventh Day After Labor, By E. O. CROFT.
10. A Fatal Case of Tabetic Gastric Crisis, By L. J. KIDD.

1. **Laryngeal Cancer.**—Semon summarizes his views as follows: 1. It is of the greatest importance that the diagnosis of laryngeal cancer be made at the earliest possible moment. For this purpose the prevailing notion that malignant disease of the larynx is from the first attended by all sorts of grave constitutional symptoms, must

be completely eradicated. In fact, there are no more promising cases for radical cure than those in which the disease is at first manifested by nothing else than obstinate, apparently causeless hoarseness, in middle aged and elderly people. 2. Clinical diagnosis, from the history, subjective and objective symptoms, has reached a certain degree of perfection, but mistakes occur even in the practice of those most experienced. 3. Clinical diagnosis ought, whenever possible, to be confirmed before radical operation of any kind is undertaken, by the intralaryngeal removal and examination of a fragment of the new growth. The microscope is, however, by no means infallible, and the examination may have to be repeated several times. If the clinical symptoms are very urgent exploratory thyreotomy may have to be performed. 4. The intralaryngeal method is from its very nature unsuitable for the radical removal of malignant new growths of the larynx. 5. Subhyoid pharyngotomy, apart from being applicable in only a small number of cases, is still *sub judice* as regards its advisability. 6. Thyreotomy, if undertaken in suitable cases, and at a sufficiently early period, and on the modern lines, is a perfectly ideal operation in intrinsic cancer of the larynx. 7. Hemilaryngectomy comes into question only when it is found after opening the larynx that mere thyreotomy will not suffice. When performed it may be accompanied by removal of the tributary lymphatics, even if apparently not diseased. 8. Total laryngectomy should be exclusively reserved for extrinsic, and for those cases of intrinsic cancer in which both sides of the organ are affected, and the disease has progressed too far to be eradicated by milder measures. When performed the laryngeal lymphatics on both sides of the neck should be removed.

2. **Red Light in Smallpox.**—Finsen, in this article, written a few weeks before his death, maintained his unshaken confidence in the therapeutical value of the red light treatment of smallpox. It is based on the fact that the smallpox infection puts the skin in a state of great sensibility to light which may act on the skin as an irritant. If the patient, during the period of the appearance and the growth of the exanthem, is protected against daylight, especially against the chemical rays, by means of a red light treatment, the exanthem will be less strong than otherwise and, as a rule, no suppuration will occur. But even a relatively short exposure to light, especially if the exanthem is fully developed, suffices for the production of suppuration. He states that Ricketts and Byles, who have recently reported unfavorable results with the method, did not give it a fair trial, in that all their patients were placed under treatment too late.

3. **Serum Therapy of Snake Bite.**—Lamb, as a result of his study of cases of snake bite treated with antitoxic sera, draws the following conclusions: 1. Antivenomous sera are markedly, if not absolutely specific, even between the venoms of species of the same genus. Hence in any case of snake bite the serum prepared with the venom of that species which has inflicted the bite must always be used. 2. The difficulties in collecting the poisons of the different species of snakes in sufficient quantity for purposes of immunization are apparently very great. 3. Up to the present the only sera which have been used practically are the one prepared by Calmette and the one prepared at the Pasteur Institute of India with pure cobra venom. 4. As the neutralizing power of these two sera is not great and as a cobra can inject a large amount of venom, the serum must be given in large quantity: as much as from 300 to 400 cubic centimetres, even when given intravenously, would be necessary in some cases. If given subcutaneously from ten to twenty times this amount would be required. It should, therefore, always be given intravenously. 5. Experiments on dogs and the records of cases of cobra bites in man bear out these calculations. 6. It is evident that it is doubtful whether the advantages to be gained by the serum treatment of snake bite are at all commensurate with the cost entailed in the preparation of the sera.

4. **Volvulus Following Gastroenterostomy.**—Barker reports the case of a woman aged twenty-eight years, upon whom gastroenterostomy was performed for severe recurrent gastric hæmorrhage. Two years later she was taken with symptoms of acute intestinal obstruction and peritonitis. A second operation was performed, and it was found that the whole of the small intestine had passed over the gastroenterostomy junction and into the general peritoneal cavity, and was twisted on itself, thus forming a huge volvulus. On untwisting the coils one complete turn, the whole of the small intestine was easily and rapidly drawn out. Convalescence was uninterrupted.

5. **Heart Suture.**—Somerville reports the case of a man who attempted suicide by pushing a penknife into his heart. He did this twice and also turned the knife in the wound. On opening the chest a wound was found in the left ventricle three eighths of an inch long. The tip of the little finger was passed into the wound to control hæmorrhage and to steady it during suture. A curved intestinal needle was used and the sutures were passed during diastole, three being necessary. The pericardial sac was cleansed, and a gauze drain introduced. The heart's action was very feeble and irregular, and continued so for a day or so, after which recovery and healing of the wound progressed rapidly and uneventfully.

6. **Hæmophilia.**—Grant reports the case of a hæmophiliac boy, suffering from hæmorrhage from a cut on the foot, in which the bleeding was checked apparently only by the use of ovarian extract, adrenalin, and other hæmostatics having proved useless. The treatment was based on the fact that women are never hæmophilic, and it is suggested that this female immunity is due to some constitutional influence emanating from the female reproductive centre, an internal ovarian secretion. In the case here reported two and a half grains of ovarian extract obtained from sheep, were given thrice daily.

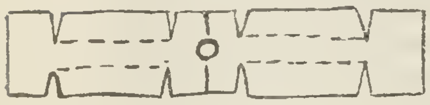
New Inventions.

A SELF-RETAINING CATHETER HOLDER AND PERINEAL DRAINAGE TUBE SUPPORTER.

By FREDERICK GRIFFITH, M. D.,

NEW YORK.

The necessity at times for the institution of continuous drainage of the bladder has led to the devising of this catheter and drainage tube supporter. When used as an attachment to a retention catheter, it is to be made from a strip of adhesive plaster one inch wide and from four to six inches long. The strip is to be cut as shown in the accompanying diagram. The dotted lines indicate the folds of the side straps. To apply the retainer, pass the adhesive plaster over the protruding end of the catheter in position within the urethra. The small hole shown in the pattern allows of this. After drawing the adhesive plaster to the proper position, fasten it by overlapping the small flaps made by the two lateral cuts shown in the central square—note that these two cuts do not run quite into the central hole—of the pattern. To prevent loosening by the action of urine or irrigating fluids of this junction of strap and catheter, apply a coating of paraffin. Complete the attachment after drawing the side straps over the glans by applying a retaining band of adhesive plaster over them. Further secure by turning up and smoothing the two ends upon the outer aspect of the band.



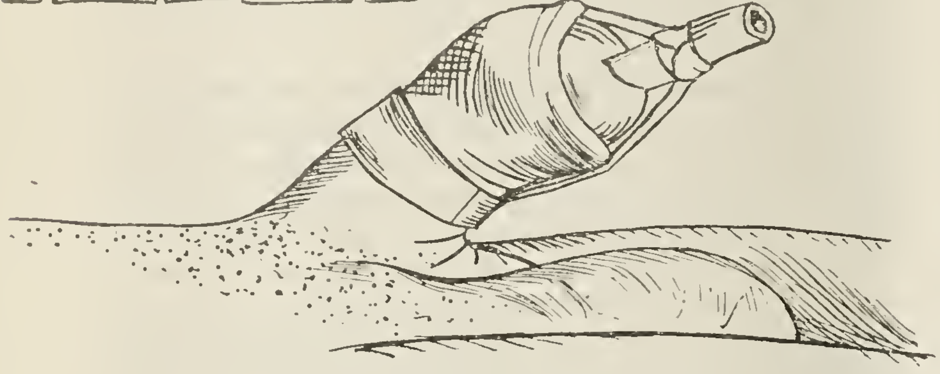


Fig. 1.—Griffith's catheter holder.

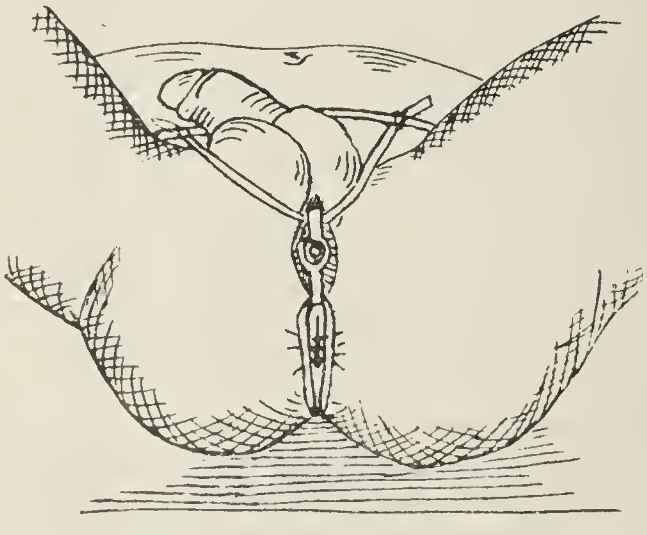


Fig. 2.—The holder adapted as a perineal drainage tube supporter.

To insure a perineal tube remaining snugly in position, apply one or two of the attachments described above with a simple alteration, namely, the open end pieces are snipped off with scissors, thus leaving merely the strip projections, which may be further cut to suitable length to engage the gauze dressing. By cutting a four strap attachment from a square of adhesive plaster, using the same diagram, but simply cutting the second at right angles to the first, the projections will be upon the same plane. This gives the advantage of support without too great stiffness. A free coating of paraffin is necessary. Firm support when but a two strap attachment is used may be obtained by making loops at the ends of the side straps. A narrow strip of bandage is passed through each loop and fastened to a girdle about the patient's waist in front and behind.

49 East Sixty-fourth Street.

Proceedings of Societies.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Meeting of Wednesday, October 26, 1904.

The President, Dr. Roland G. Curtin, in the Chair.

A Case of Typhoid Fever Complicated by Appendicitis, Followed by Pleurisy With Effusion and Pneumothorax.—Dr. Moses Behrend read this paper. The patient contracted typhoid fever of a rather severe type; in the third week of the disease he showed symptoms of perforation, which at operation were found to be those of appendicitis. He recovered from an operation for the latter. Ten days afterward he was tapped for pleurisy with effusion. About fourteen days after this he had pneumothorax. The patient made a fine recovery.

Dr. L. J. Hammond thought that the case illustrated the fact, now generally admitted, that appendicitis occurring in the course of typhoid fever was entirely coincident and in no way connected with the typhoid process, and that the majority of cases of appendicitis occurring in the course of typhoid fever were recurrent attacks. Given a case of typhoid fever with the early symptoms of pain, rigidity, and other symptoms of appendicitis, one should suspect the presence of a large amount of adhesions; and, if the symptoms were severe the surgeon was justified in operating at once. The removal of the appendix, breaking up of adhesions, and liberation of the coils of intestines would lessen the possibility of typhoid perforation.

Dr. W. H. Teller thought that, notwithstanding the fact that the mucous coat presented all the symptoms of typical catarrhal appendicitis, the condition was that of preperforative typhoid with involvement of the peritoneal covering of the appendix by extension, and not a case of pure appendicitis.

Dr. J. Allison Scott thought it should be remembered that there were several varieties of inflammation of the appendix in typhoid fever. Reviewing the literature of perforation of the bowel, and collecting statistics of the hospitals of London and suburbs and of the Pennsylvania Hospital, he had found 382 cases of perforation, seventeen of which were in the appendix alone and due to ulceration from within. There was another type in which, during the course of the typhoid fever or during the convalescence, acute inflammation of the appendix had been set up, but was not due to ulceration within the appendix, but to the appendix becoming gangrenous and perforating in the ordinary form of appendicitis. Dr. Scott was inclined to believe that if cases of perforation of the bowel were studied carefully it would be found that the appendix was involved more frequently than was thought.

Dr. Astley P. C. Ashhurst believed that there were several varieties of appendicular inflammations during typhoid fever. That they could be distinguished by the different symptoms he did not think was possible. In the early stages of typhoid fever there could be seen constant pain, vomiting, and a certain amount of shock with rigidity over the appendix. At the operation there would be found infiltration of the appendix and appendicitis, the probability being that these were only typhoid lesions in the appendix. Later on there might be present the same conditions through perforation of ordinary inflammation of the appendix. The inflammation, he believed, would so obscure the typhoid lesions that to distinguish one from the other was hardly possible.

Dr. Behrend took exception to Dr. Teller's belief that the case was one of preperforative typhoid fever. He believed it to be one of pure appendicitis, due, he granted, to the extension of the inflammation as a result of typhoid. He considered it a case of pure typhoid fever, and not such as Dr. Teller stated. As interesting facts connected with the case Dr. Behrend stated that, of five nurses connected with the case, one contracted typhoid fever and another appendicitis, and the latter died from peritonitis. The patient's wife contracted typhoid fever and recovered. The nurse who contracted typhoid fever also recovered.

The Trend of Modern Prescription Writing.—Dr. M. Clayton Thrush considered this subject from the standpoint both of the physician and of the pharmacist. One thousand prescriptions were examined and criticized from the standpoint of incompatibility, whether chemical, therapeutical, or pharmaceutical. They were classified in groups, according to the number of ingredients. The number in which the metric system was employed was also considered, and finally the prescriptions were classified according to the manner of writing, terminations and phraseology being included. These various headings were elaborated upon and improvements suggested. The prescriptions containing only official preparations were classified, also those in which proprietary preparations were used.

Dr. S. Solis Cohen asked what Dr. Thrush meant by "therapeutic incompatibility"; aconite and digitalis, or nitroglycerin and strychnine were to a certain extent incompatible, yet under some circumstances might be given together. He also asked the author's meaning in the expression "Proprietary preparation." Squibb's ether, he said, was a proprietary preparation.

Dr. Thrush replied that by therapeutic incompatibility he meant the combination of those ingredients which from a therapeutic standpoint were directly antagonistic, and in which the action of the drugs would be particularly antagonistic. He had come across two instances in which aconite and digitalis had been used, but he felt that it had been done for a certain object. The question of proprietary preparations was one considerably confused in the minds of all. His reference was to those preparations of known chemical or pharmaceutical composition, but which were furnished by some particular chemical manufacturer, who had a copyright for that preparation which no one else could use.

The Relation of the Physician to the Bureau of Health was the title of a paper by Dr. S. W. Newmayer (see page 1014).

Dr. Edward Martin, director of Public Health, said that the desire of the Bureau of Health was to help the medical profession, to act as its agent, and not as a foreign intervention, that the bureau asked the help of the profession and was ready to give in return its assistance. He referred to the corps of young men instructed in the work, every man of which had been a hospital resident, had had a special course in contagious diseases, and in other directions been fitted for the work. Dr. Martin said: "You cannot teach all men tact and judgment; you can make many men wise, but you cannot make all men sensible." The underlying spirit of every man in the corps, however, he said, was to help and to stand by the profession, and not to interfere. With the help of the profession the whole city work would be a success.

Dr. Randolph Faries stated that there were many cases of contagious diseases never reported, because the families could not employ a physician. These usually came under notice by accident. The solution of this problem he considered of vital importance.

Dr. Kate W. Baldwin said that she would be grateful for the solution of the problem just mentioned; many such cases appeared at the dispensaries, and it was almost impossible to make cultures and to watch the patients. They had no family physician, and, on following up such cases, the patients were frequently found playing with other children in the alleys, and found to have diphtheria.

Dr. Andrew A. Cairns said it was contrary to the methods of the bureau of health for a medical inspector to examine a patient. The only examination required was at the termination of the disease, when he was to see all cases before ordering fumigation; any misunderstandings between the medical inspector and the attending physician would be corrected as early as possible.

Dr. Henry Beates said he thought it possible to devise some ethical means to establish the proper relation of the physician to the bureau of health.

Dr. Conrad Berens referred to an unpleasant experience with a medical inspector occurring in his practice.

Dr. Cairns took exception to the judgment of Dr. Berens, and stated that there were only two diseases of which the bureau of health required the medical inspectors to make diagnoses: smallpox and chicken pox, and that if a medical inspector made himself obnoxious it was not done under orders.

Dr. Walter S. Cornell referred to the methods of disinfection of houses and the giving of antitoxine at the hands of the bureau of health.

Dr. Beates pointed out as important the need for some rule or law by which a responsible physician, the moment he was in contact with an infectious disease, could control the family until the board of health could act.

Dr. I. Valentine Levi said that the fact that the board of health should carry out the disinfection, unless the physician obtained special permission to do so, had been the source of much trouble between the medical inspector and the doctor. The family physician would tell the family to burn some sulphur, and that the board of health would not need to do anything, and when the medical inspector appeared and insisted that the house be disinfected, he got all kinds of beautiful appellations. In one instance the medical inspector was reported to the central office as doing everything possible against the medical profession. He felt that the physician should tell the pateints that the house must be disinfected by the board of health, unless he ordered otherwise.

Dr. S. Solis Cohen regarded as important the question of what was to be done with patients suspected of having diphtheria before a culture was made. He believed it the duty of the physician, whether in his office or in the dispensary, to disinfect the throat promptly when there was any question in diagnosis. Concerning the action of the board of health and its inspectors, his own experience had been that there need be no trouble, if both sides were willing to act as human beings who recognized their own liabilities to mistake ought to be willing to act. Occasionally an officious or tactless inspector had done or said something in the household of a patient to which he felt he could take reasonable objection, but he had always found that communication with the superiors of this tactless or officious inspector had been the means of having him so instructed that he would not repeat the error elsewhere. That he believed to be one of the factors in the relation between the physician and the board of health that each physician could well cultivate, being prompt and unsparing in the direct report to the chiefs of the bureau of health of any dereliction or seeming offense on the part of their inspectors. Sometimes it would be found that the physicians had been misinformed by the patients. He felt that the bureau of health was deserving of all the support and advice that could be given by the medical profession.

Dr. Jay F. Schamberg agreed with Dr. Cohen that there were many instances in which both patients and physicians were misrepresented. He knew that the average ability of the members of the board of medical inspectors in the detection of contagious diseases was of a very creditable standard, and bound to increase. He believed that the medical profession had full confidence in the bureau of health, and that the subject should be approached with a little more charity on both sides.

San Francisco Board of Health.—Dr. J. Coplin Stinson has resigned his position as senior member of the San Francisco Board of Health.

Book Notices.

An Atlas of Human Anatomy for Students and Physicians. By Carl Toldt, M. D., Professor of Anatomy in the University of Vienna, Assisted by Professor Alois dalla Rosa, M. D. Translated from the Third German Edition and Adapted to English and American and International Terminology. By M. Eden Paul, M. D., Brux., M. R. C. S., L. R. C. P. Sections IV and V, Splanchnology and Angeiology. New York: Rebman Company; London: Rebman, Limited, 1904. Pp. 403 to 553, 555 to 743.

These two new volumes, or "sections," as they are modestly termed on the title pages, are in every respect fully equal to the volumes of this great work that have preceded them. It is to be expected, we think, that this edition of Toldt's *Atlas* will be extensively used by the medical profession in English speaking countries.

Essentials of Bacteriology. Being a Concise and Systematic Introduction to the Study of Microorganisms. By M. V. Ball, M. D., Formerly Bacteriologist to St. Agnes's Hospital. Fourth Edition, Thoroughly Revised by Carl M. Vogel, M. D., Assistant in Pathology, College of Physicians and Surgeons, Columbia University, New York. With 96 Illustrations, some in Colors, and 6 Plates. Philadelphia, New York, London: W. B. Saunders & Co., 1904. Pp. 243. (Cloth, $1.00.)

The editor is to be congratulated that in the careful revision he has given this compend he has succeeded in presenting so briefly a comprehensive survey of the present status of bacteriology. The sections on bubonic plague, dysentery, immunity, tuberculosis, and yellow fever are up to date, and the general impression the work gives is most favorable.

Essentials of Anatomy. Including the Anatomy of the Viscera. Arranged in the Form of Questions and Answers Prepared Especially for Students of Medicine. By Charles B. Nancrede, M. D., Professor of Surgery and of Clinical Surgery in the University of Michigan, etc. Seventh Edition, Thoroughly Revised. Philadelphia, New York, London: W. B. Saunders & Co., 1904. Pp. 419. (Cloth, $1.00.)

The preparation of the seventh edition of this work has given the author the opportunity to revise the section on the nervous system so as to make it, particularly in the description of the anatomy of the brain, abreast of the knowledge of the day. Otherwise the plan of the book has not been interfered with, and the nomenclature has not been altered. The volume is a most compact and practical compend.

Transactions of the American Association of Obstetricians and Gynæcologists. Vol. XVI. For the Year 1903. New York: Rooney & Otten Printing Company, 1904.

The present volume records the transactions of the Association for the year 1903. Most of the contributions have been printed in the current periodicals and require, therefore, no extended notice. They are of interest to the specialist and, in many instances, to the surgeon, and form an excellent compend of the advances in gynæcology and obstetrics of the year. The book is handsomely got up.

International Clinics. A Quarterly of Illustrated Clinical Lectures, and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pædiatrics, Obstetrics, Gynæcology, Orthopædics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene, and Other Topics of Interest to Students and Practitioners, by Leading Members of the Medical Profession Throughout the World. Edited by A. O. J. KELLY, A. M., M. D., Philadelphia. Volume III. Fourteenth Series, 1904. Pp. viii-302. Philadelphia: J. B. Lippincott Company, 1904. (Cloth, $2.00.)

This volume includes twelve papers on syphilis by Campbell Williams, A. H. Ohmann-Dumesnil, G. Carriere, G. Milian, W. G. Spiller, A. Chauffard, J. W. Ballantyne, A. Fournier, T. R. Neilson, and W. S. Gottheil; three papers on treatment by Lawrason Brown, I. Boas, and T. S. Hart; four on subjects in internal medicine by W. B. Allchin, W. H. Katzenbach, L. F. Bishop, and Andrew Duncan; four on surgery by T. H. Manley, Lermoyez and Guisez, P. Stewart, and C. G. Cumston; three on gynæcology by T. H. Davenport, C. Lockyer, and C. D. Palmer; and a lecture on a case of paralysis agitans by F. W. Langdon. It will maintain the reputation accorded to the preceding volumes.

A Treatise on Obstetrics. For Students and Practitioners. By EDWARD P. DAVIS, A. M., M. D., Professor of Obstetrics in the Jefferson Medical College, etc. Second Edition, Illustrated with 274 Engravings and 39 Plates in Colors and Monochrome. Philadelphia and New York: Lea Brothers & Co., 1904. Pp. viii-809.

The second edition of Dr. Davis's book is enlarged and revised as to the literature. The subjects which are in dispute among obstetricians have received careful and conscientious consideration. Eclampsia, for instance, is handled in a manner which gives the student the essential facts concerning this serious and important complication, and yet the author is not too dogmatic in his assertions as to ætiology. For rapid dilatation in eclampsia Davis recommends the use of the Bossi dilator, urging caution, however, as to the danger of lacerating the cervix by its use.

Not only is the work thoroughly modern, but it is especially strong on its pathological side, a feature which deserves special commendation. The histology and pathology of abnormal conditions are portrayed well in the text and by illustration. The physiological portion of the work is also above criticism.

We can say of this edition, as of the previous one, that it is a worthy companion for the student and a good book for the practitioner.

Blood Pressure as Affecting Heart, Brain, Kidneys, and General Circulation. A Practical Consideration of Theory and Treatment. By LOUIS FAUGÈRES BISHOP, A. M., M. D., Physician to the Lincoln Hospital, New York, etc. Pp. 112. New York: E. B. Treat & Co., 1904. (Cloth, $1.00.)

After describing in general the alterations of pressure in the blood vessels, the author describes the symptoms and treatment of those patients in whom there is primary low pressure, and of those in whom there is high pressure, and of those in whom there is low pressure secondary to high pressure. These subjects are of great importance on account of the increase in the number of people who have altered blood pressure, and the book will prove suggestive and valuable to the practitioner.

A System of Practical Surgery. By Professor F. VON BERGMANN, M. D., of Berlin; Professor P. VON BRUNS, M. D., of Tübingen, and Professor J. VON MIKULICZ, M. D., of Breslau. Translated and Edited by WILLIAM T. BULL, M. D., Professor of Surgery, College of Physicians and Surgeons, Columbia University, New York, and EDWARD MILTON FOOTE, M. D., Instructor in Surgery, College of Physicians and Surgeons, Columbia University, New York. Volume V. *Surgery of the Pelvis and the Genitourinary Organs.* New York and Philadelphia: Lea Brothers & Co., 1904. Pp. 789.

This volume is a translation of the articles by Steinthal, Nitze, Körte, Sonnenburg, von Bramann, Rammstedt, and Schede upon the surgery of the pelvis (its bones, joints, and blood vessels), of the rectum and anus, the urinary organs, and the male generative organs. With the female generative organs, even with their strictly surgical diseases, it has nothing to do. To the abnormities and surgical diseases of the kidney and ureter 250 pages are devoted, while a separate chapter (by Schede) describes the modern methods of examination. In addition to its own index the volume contains a general index to the entire series.

To this brief notice of the last volume of the series a word of praise and thanks must be added for the industry and skill with which Dr. Bull and his staff of collaborators have prepared so splendid an American edition of the classic treatise of von Bergmann, von Bruns, and von Mikulicz.

Weather Influences. An Empirical Study of the Mental and Physiological Effects of Definite Meteorological Conditions. By EDWIN GRANT DEXTER, Ph. D., Professor of Education at the University of Illinois. With an Introduction by CLEVELAND ABBE, LL. D. Pp. xxi-286. New York: The Macmillan Company; London: Macmillan & Co., Ltd., 1904.

In this volume an attempt is made to determine the influence of temperature, barometric pressure, winds, rainfall, humidity, and clouds upon such widely unrelated matters as school attendance, crime, insanity, health, suicide, drunkenness, and the faculty of attention. The writer has a penchant for statistical methods and graphic charts, which in the present instance have been attended with results so meagre, fragmentary, and unimportant that they can hardly be considered seriously from a scientific standpoint. Where his conclusions are not commonplace their validity is often open to doubt. Certainly the generalization is too sweeping that "inhabitants of hot climates are usually listless, uninventive, apathetic, and improvident." These are not the attributes of the modern Neapolitan or of the ancient Greek. The discovery that women are more susceptible than men to weather influences would confirm Virgil's scandalous opinion of the sex, *Varium et mutabile semper femina.* In an entertaining chapter on weather folk lore there is an agreeable revelation of Dr. Edward Jenner in a new rôle. To most physicians his name is immortalized by its single association with the discovery of vaccination. The following poetic epistle to a friend, on being obliged to abandon a hunting trip on account of the weather, would show that he cultivated the muses with some success, and was also a close and sympathetic observer of nature.

> The hollow winds begin to blow;
> The clouds look black, the glass is low.
> The soot falls down, the spaniels sleep,
> And spiders from their cobwebs peep.
> Last night the sun went pale to bed,
> The moon in halo, hid its head;
> The boding shepherd heaves a sigh
> To see a rainbow in the sky.
> The walks are damp, the ditches smell;
> Closed is the pink-eyed pimpernell.
> Hark! How the chairs and table crack!
> Old Betty's joints are on the rack.
> Loud quack the ducks; the peacocks cry:
> The distant hills are looking nigh.
> How restless are the snorting swine;
> The busy flies disturb the kine;
> The cricket, too—how sharp he sings!
> Puss on the hearth, with velvet paws,
> Sits, wiping o'er her whiskered jaws.
> Through the clear stream the fishes rise,
> And nimbly catch the incautious flies.
> The glowworms, numerous and bright,
> Illumed the dewy dell last night.
> At dusk the squatted toad was seen
> Hopping and crawling o'er the green.
> The whistling wind the dust obeys,
> And in the rapid eddy plays.
> The frog has changed her yellow vest,
> And in a russet coat is drest.
> Though June, the air is cold and still;
> The blackbird's mellow voice is shrill.
> And see yon rooks, how odd their flight!
> They imitate the gliding kite,
> And seem precipitate to fall,
> As if they felt the piercing ball.
> 'Twill surely rain, I see with sorrow;
> Our jaunt must be put off to-morrow.

A System of Practical Surgery. By Professor E. von Bergmann, M. D., of Berlin; Professor P. von Bruns, M. D., of Tübingen, and Professor J. von Mikulicz, M. D., of Breslau. Translated and Edited by William T. Bull, M. D., Professor of Surgery, College of Physicians and Surgeons, Columbia University, New York; Edward Milton Foote, M. D., Instructor in Surgery, College of Physicians and Surgeons, Columbia University, New York; Carleton P. Flint, M. D., Instructor in Minor Surgery, College of Physicians and Surgeons, Columbia University, New York; and Walton Martin, M. D., Instructor in Surgery, College of Physicians and Surgeons, Columbia University, New York. Volume IV. *Surgery of the Alimentary Tract.* New York, Philadelphia: Lea Brothers & Co., 1904.

There is no disappointment in store for the purchaser of this volume, which includes most of the chapters of the series that deal with abdominal surgery and the chapter by von Mikulicz and Kausch upon the technics and general principles of laparotomies.

The work deals exhaustively with the œsophagus —its malformations, injuries, and disorders—the abdominal wall and the peritonæum, and the surgery of the stomach, intestines, liver, and bile passages, spleen and pancreas, together with 150 pages upon hernia. Methods of diagnosis are dealt with at great length. While there was but little to add to the original articles of von Hacker, Steinthal, von Mikulicz, Kausch, Graser, Körte, Lotheisen, Kehr, and Schlange, the translators have kept the text thoroughly up to date and have further illuminated it by the selection of excellent illustrations. Many of these, some of them colored plates, have been borrowed from the books and monographs of Lilienthal, Brewer, Park, Hartmann, Kocher, Mayo, Huntington, Senn, Finney, Richardson, and others.

BOOK AND MAGAZINE NOTES.

Ups and Downs of a Virginia Doctor, By C. A. Bryce, M. D., published by the Ashland Printing Company at $1.00, is a very amusing book, and contains some remarkably good stories, many of them new. We have found the humor better than the pathos, a good point in a work which a busy practitioner can pick up for a few moments at a time. The work has been conscientiously illustrated and we recommend it highly for what has been recently renamed splanchnic neurasthenia; our old friend, the blues.

BOOKS, PAMPHLETS, ETC., RECEIVED.

Die Wirkungen von Arzneimitteln und Giften auf das Auge. Handbuch für die gesammte ärztliche Praxis. Von Dr. L. Lewin, Professor in Berlin, und Dr. H. Guillery, Oberstabsarzt in Cöln. I. Band. Pp. vi-857. Mit 85 Textfiguren. Berlin, 1905: August Hirschwald.

The Modern Nursing of Consumption. By Dr. Jane R. Walker, Physician to the New Hospital for Women, London, and Medical Superintendent of the East Anglian Sanatorium, Nayland, Suffolk. Pp. 47. London: The Scientific Press, Ltd. [1 shilling net.]

The Sea Wolf. By Jack London, Author of *The Call of the Wild, People of the Abyss,* etc. Pp. vii-366. With Illustrations by W. J. Aylward. New York, 1904: The Macmillan Company. London, 1904: Macmillan & Co., Ltd. [$1.50.]

The Medical Record Visiting List, or Physicians' Diary for 1905. New Revised Edition. Pp. 186. New York: William Wood & Co.

Chart of the Arterial, Venous, and Nervous Systems. Cleveland: Dr. Gustave H. Michel & Co.

Manual of Serum Diagnosis. By Dr. O. Rostoski, University of Würzburg. Authorized Translation by Dr. Charles Bolduan. First Edition, First Thousand. Pp. vi-86. New York, 1904: John Wiley & Sons. London: Chapman & Hall, Limited. [Cloth, $1.00.]

Physician's Pocket Account Book. By J. J. Taylor, M. D. Pp. xiv-201. Philadelphia: *The Medical Council.*

The Houseboat Book. The Log of a Cruise from Chicago to New Orleans. By William F. Waugh. Pp. 211. Chicago, 1904: The Clinic Publishing Company.

Transactions of the Royal Academy of Medicine in Ireland. Vol. XXII. Edited by John B. Story, M. B., F. R. C. S., General Secretary; Surgeon to Royal Victoria Eye and Ear Hospital, Dublin. Pp. xxxix-439. Dublin, 1904: John Falconer. London, 1904: Baillière, Tindall, & Cox. Edinburgh: James Thin. Bristol: John Wright & Co.

A Textbook of Physiological Chemistry. By Olof Hammarsten, Professor of Medical and Physiological Chemistry in the University of Upsala. Authorized Translation from the Author's Enlarged and Revised Fifth German Edition by John A. Mandel, Sc. D., Professor of Chemistry and Physics, and of Physiological Chemistry in the New York University and Bellevue Hospital Medical College. Fourth Edition, First Thousand. Pp. viii-703. New York, 1904: John Wiley & Sons. London, 1904: Chapman & Hall, Limited. [Cloth, $4.00.]

Proceedings of the Connecticut Medical Society, 1904. One Hundred and Twelfth Annual Convention, held at New Haven, May 25th and 26th. Pp. 576. Published by the Society, 1904.

Transactions of the West Virginia State Medical Association at the Thirty-seventh Annual Session, held at Fairmont, W. Va., May 10, 11, and 12, 1904. Instituted April 10, 1867. Pp. 155. Wheeling, 1904: Wheeling News Litho. Co.

Studies from the Department of Neurology. Publications of Cornell University Medical College. Vol. I. Pp. 239. New York city, 1904.

Annual Report of the Board of Regents of the Smithsonian Institution. Showing the Operations, Expenditures, and Condition of the Institution for the Year Ending June 30, 1903. Pp. 876. Washington, 1904: Government Printing Office.

Spezielle Diagnose der Inneren Krankheiten. Ein Handbuch für Arzte und Studierende Nach Vorlesungen Bearbeitet. Von Dr. Wilhelm v. Leube, Professor der Medizinischenen Klinik und Oberarzt am Juliusspital in Würzburg. I. Band. Siebente neu Bearbeitete Auflage. Mit 28 Abbilrungen. Pp. xii-562. Leipzig, 1904: F. C. W. Vogel. [13 M.]

Lehrbuch der Arzneimittellehre und Arzneiverordnungslehre. Unter Besonderer Berücksichtigung der Deutschen und Osterreichischen Pharmakopoe Von Dr. H. v. Tappeiner, Ord. Professor der Pharmakologie und Vorstand des Pharmakologischen Instituts der Universität München. Fünfte neu Bearbeitete Auflage. Pp. viii-347. Leipzig, 1904: F. C. W. Vogel. [7 M.]

Pathologische Physiologie. Ein Lehrbuch für Studierende und Arzte. Von Dr. Ludolf Krehl, O. Professor und Direktor der Medizinischen Klinik in Strassburg. Dritte neu Bearbeitete Auflage. Pp. xvi-620. Leipzig, 1904: F. C. W. Vogel. [15 M.]

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The Medical Association of the Greater City of New York.—A stated meeting of this association was held at the New York Academy of Medicine, 17 West Forty-third Street, Manhattan, on Monday, November 14, 1904, at 8.30 p. m., with the following order of exercises: Report of the Committee on the Death of Dr. Henry Tuck, by John P. Munn, M. D., chairman; Presentation of Specimens or Cases, and Voluntary Communications; Discussion on Cirrhosis of the Liver and Its Treatment, by Dr. Leonard Weber, Dr. James K. Crook, Dr. Frank Grauer, and Dr. Joseph Fraenkel; Surgical Treatment by Dr. Robert T. Morris, Dr. George R. Fowler, Dr. Francis H. Markoe. General Discussion of the Subject. Collation. J. Lee Morrill, M. D., treasurer; P. Brynberg Porter, M. D., recording secretary, 150 West Eighty-fourth Street, New York.

Miscellany.

Why is Consumption So Prevalent and Seemingly so Fatal?—Dr. Paul Paquin, of Asheville, N. C., before the Ohio Valley Medical Society, in a paper entitled Consumption and Its Borderland, showed from what seem reliable data that pulmonary tuberculosis was a very readily curable disease in many instances, and argued that the profession was largely responsible for its ravages. Among other remarks he presented the following:

Tuberculosis was still the most widely scattered, the most prevalent, and the one perpetual plague universally. It still consigned to the tomb more people than the slaughter of war in all its atrocious forms. The death roll of all the wars of the nineteenth century was estimated at 14,000,000[1] and that of consumption in the same period and countries at 30,000,000.

Our country's yearly death rate by it was approximated at 160,000. Of these invalids perhaps one fifth were not wage earners and had incomes continuing while sick. The remaining four fifths lost their previous daily revenue. If we estimated that all of the latter were too ill to earn anything for one year, and that each of them was previously earning one dollar a day three hundred days a year, what did it represent in yearly loss? $38,400,000! If the average length of invalidism was two years, it meant a loss of $76,800,000 a year. These were flat losses of income.

Why was the world so strangely apathetic with regard to this, the very gravest and most comprehensively destructive of all the ills of mankind? First, because the majority of the medical profession continued to consider tuberculosis, particularly pulmonary consumption, as incurable in any event. Second, because this circumstance and the lack of instruction in sanitary science in our system of education had produced a public mental attitude of wanton optimism. Third, because there remained, here and there, a few who rejected facts of infection mathematically demonstrated the world over and continued a public crusade in favor of their mistaken ideas. Fourth, because when tuberculosis was recognized the truth was often concealed so long from the patient and relatives, that the former lost precious chances of recovery and was allowed to disseminate the disease broadcast. Fifth, because, by the marriage of consumptives, prolific new centres of infection with far reaching fatal influences reinforced the popular idea of unavoidable pathogenic perpetuity. Sixth, because the diagnosis of the disease, in the great majority of cases, was made too late for any measure of prevention or cure to be effective.

Tuberculosis was proved largely curable by specialists, general practitioners, and experimentalists. How were we to cure more cases, and finally stamp it out? He suggested a more complete medical education, so that early diagnosis might be possible.

The medical college that would establish a competent chair whence to teach the pathology and clinical factors of the borderland of disease would confer a blessing on the profession and humanity, for it would do immediate good and soon be emulated. This sphere of medical science, including physiological conditions as they tapered down and changed to pathological states, and which had been explored only by few, contained the very germ of knowledge for the early diagnosis of all diseases affecting the constitution and could be treated in a most interesting manner without in any way interfering, but rather supporting or supplementing the regular course on the principles and practice of medicine. A dozen or two of good, practical lectures would be of immense advantage to students and physicians alike.

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[1] Richet.

The author argued that tuberculosis was, after all, a disease of nutrition due to a faulty nervous system which permitted directly and indirectly the introduction and development of germs and their toxines in the system, and asserted that, under a complete and proper control and guidance of all the organs in the system, consumption could not occur.

Dr. Paquin, following other writers and practitioners, believed that the tonsils and other tissues of the neighborhood constituted the chief gateway of tubercle bacilli, and mentioned amygdalitis, habitual nose bleed, chronic hacking coughs, pleurisies, deficient nutritions, and dyspepsias, etc., as early symptoms of consumption in the borderland.

Dr. Paquin laid great stress on the necessity of diagnosticating the borderland of tuberculosis in order to arrest the malady in its incipiency, on the usefulness of open air life in a suitable climate, the value of certain remedies in the line of natural law, as certain vaccines and serums when applicable and in select suitable cases, and deprecated the pitiful habit of sending consumptives away moribund, often without any prior arrangement with a physician where they were sent to care for them, and save them from errors of conduct and treatment in a new climate, and the pitfalls incident to new, strange surroundings.

The Treatment of Post Partum Hæmorrhage.—Benjamin Hart discusses this subject in the *Practitioner*, for October, 1904. He considers hæmorrhage occurring during the third stage of labor as a part of his subject, and also that hæmorrhage with adherent placenta should receive separate consideration. In both these varieties the necessity of separating the placenta and membranes by hand must be borne in mind. Three special anatomical arrangements favor the separation of the placenta: (a) A spongy or perforated place where separation may occur; (b) a special thinning of the walls of the afferent and efferent blood vessels before they emerge from the uterine muscle; (c) a special development of muscle which grasps the vessels of the wall. The clots which form in the mouths of the thin walled vessels when they are torn through are of great importance. The retraction ring which contains the circular vein of the uterus is the boundary between the two great portions of the genital tract and drains away the blood from the portion of the uterus, which is above it during the first and second stages of labor. All above it is active, all below it, lower uterine segment, cervix, and pelvic floor, is passive. During a pain the active portion retracts and the passive portion is distended. The necessity of having the necessary requirements for controlling hæmorrhage always at hand is a matter of importance.

The character of the labor will usually warn the accoucheur whether hæmorrhage may be expected or not. A long hard labor, the use of instruments, flooding in previous labors, long continued sterility, endometritis, multiple births, placenta prævia, etc., all indicate the possibility of post partum hæmorrhage. Hæmorrhage from above the retraction ring is due usually to muscular relaxation in which the vascular sinuses are not grasped. Hæmorrhage from below the ring may be caused by the laceration of vessels which have no circular network of muscle to grasp them. In the latter case the principles to be applied are accurate diagnosis as to the source of bleeding, pressure, and suture if necessary. Hæmorrhage of this kind can often be avoided by abstaining from harsh, unnecessary, and premature interference.

If the hæmorrhage is from that portion of the uterus above the retraction ring the conditions will vary.

1. This variety occurs during the third stage of labor. The uterus is soft, blood flows from the vulva, the placenta is within the uterus. The uterus must be squeezed and a hypodermic injection of ergotine given. Should this be ineffective, the cervix should be grasped with the fingers of the right hand, while the other hand grasps the fundus, and bimanual compression and antiflexion performed. This should be followed by a hot vaginal douche. Should this fail the placenta is probably adherent and must be removed by hand. After this the uterus must be compressed again until all risk of hæmorrhage seems to be over.

2. This variety occurs after the third stage is completed, and may be treated by (a) abdominal compression of the uterus, (b) bimanual compression and manipulation, (c) hot vaginal and hot uterine douche. A double current catheter being used and the reservoir held at such a height that the current will not enter the uterus with too great force. If all these measures fail the uterus must be plugged, strips of iodoform gauze three inches wide being cautiously packed within the organ. The tampon may be retained twenty-four to forty-eight hours. Venous or submammary infusion of saline solution may be necessary in very bad cases. Other measures which may be adopted are aortic compression, bandaging the limbs, and elevation of the foot of the bed.

3. Hæmorrhage from adherent placenta and danger of sepsis. The bleeding is more profuse when only a portion of the placenta remains attached. The left hand must steady the uterus while the right enters and sweeps away the obstruction. Placenta and membranes must be stripped away intact if possible. The uterine douche should follow and the tampon may also be necessary.

4. Hæmorrhage from adherent membranes.

The bleeding is less profuse if the placenta is entirely detached and the uterus will diminish in size. In such a case the hand must be introduced and the membranes peeled away.

A Study of the Tubercle Bacilli Isolated from Three Cases of Tuberculosis of the Mesenteric Lymph Nodes.—Smith, in the *American Journal of the Medical Sciences*, for August, 1904, summarizes his analysis of his three cases as follows: The bacilli isolated from these three cases of presumable food infection do not correspond to the bovine type of bacilli in any one particular:

1. They were readily cultivated from nearly all the guinea pigs inoculated, and they grew luxuriantly from the start on dog's serum. Subcultures on glycerin agar and glycerin bouillon grew vigorously after the first transfer from dog's serum.
2. Morphologically the bacilli were either fairly long, that is, they averaged about 2 μ in length, or else they were variable, polymorphic. The uniformly short, straight forms of the bovine type were absent.
3. In all cases the bacilli were of a very low order of virulence, lower even than that of many of the cultures of human origin studied before.
4. None presented the reaction curve of true bovine bacilli.

A Plea for Claret.—It is curious, says the *Lancet,* in a recent issue, that when Bordeaux wines or clarets were never cheaper, more abundant, and purer than they are in the present day, the public demand for them should so decidedly have diminished. The fact is that nowadays claret is not understood by the majority of people, and it must be admitted that unless it is handled properly claret may easily be an unpleasant and uninteresting beverage. On the other hand, there is no finer wine, no wine of a more wholesome character, or possessing more delicacy of flavor, than a light, sound, relatively non-acid claret when proper care is devoted to it. Sound claret contains but little free acid, and, in fact, in this respect it invariably contains the least proportion of acid of all wines. Again, red Bordeaux wines are certainly less acid than white wines, while they contain practically no sugar compared with white wines. In health the individual would undoubtedly be better for drinking a pleasant light claret rather than a glass of ardent spirits and water. Good, sound claret need not contain more alcohol than does ale or stout, while it is free from the extractive matters of the latter. It is well known that in countries where the staple beverage is *vin ordinaire* the people who are content with such a simple but withal generous drink have sober inclinations, show a good bill of health, and are free from the demoralizing influences of spirit drinking. Yet in this country the same advantages may be enjoyed, so good, cheap, and abundant is the supply of light claret imported at the present time. The decline in the consumption of light wines in favor of heavy wines or the drinking of ardent spirits would appear to be evidence that a demand for more vigorous and rapidly acting stimulants has arisen, and the social and moral aspects of such a demand are worth serious reflection.

Official News.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the week ending November 19, 1904:

Place.	Date.	Cases.	Deaths.
Smallpox—United States.			
Illinois—East St. Louis	Nov. 5-12	8	1
Michigan—Detroit	Nov. 6-13	3	
Michigan—At 50 places	Oct. 29-Nov. 5	Present.	
Missouri—St. Louis	Nov. 5-12	13	1
New York—New York	Nov. 5-12	1	
Ohio—Cleveland	Nov. 5-12	1	
Smallpox—Foreign.			
Austria-Hungary—Prague	Oct. 22-29	13	
Brazil—Bahia	Oct. 8-15	11	3
Brazil—Para	Oct. 1-21	29	4
France—Lyon	Oct. 22-29	3	
Great Britain—Leeds	Oct. 22-Nov. 5	4	1
Great Britain—London	Oct. 22-29	1	
Russia—Moscow	Oct. 15-22	2	
Turkey—Alexandretta	Oct. 22-29	1	
Turkey—Beirut	Oct. 22-29	Present.	
Turkey—Constantinople	Oct. 23-30		20
Yellow Fever.			
Cuba—Santiago, Punta da Sal	Nov. 8	1	
Mexico—Coatzacoalcos	Oct. 29-Nov. 5	3	2
Venezuela—La Guayra	Oct. 22	Present.	
Cholera.			
Persia—Tabris	Sept. 27-Oct. 2		209
Turkey—Bagdad and vicinity	Sept. 17-Oct. 1	272	216
Plague—Insular.			
Hawaii—Honolulu	Nov. 11		1
Plague—Foreign.			
Brazil—Bahia	Oct. 8-15		3
Egypt—Alexandria	Oct. 8-14	2	1
India—Karachi	Oct. 8-16	9	11
Mauritius	Aug. 5-Sept. 8	31	20

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending November 19, 1904:

APPEL, AARON H., Major and Surgeon. Ordered to return to Manila, P. I., for assignment to duty.

BOURKE, JAMES, First Lieutenant and Assistant Surgeon. Left Fort Sheridan, Ill., with Troops I and K of the Eleventh Cavalry, *en route* to Fort Des Moines, Ia.

HAVARD, VALERY, Colonel and Assistant Surgeon-General. Sails on special detached duty for St. Petersburg, Russia.

LYNCH, CHARLES, Captain and Assistant Surgeon. Ordered to Tokyo, Japan, on special detached duty.

PORTER, RALPH S., First Lieutenant and Assistant Surgeon. Granted fifteen days' leave of absence, from November 10, 1904.

SMART, ROBERT, First Lieutenant and Assistant Surgeon. Granted one month's leave of absence, to take effect on or about November 21, 1904, with premission to apply for fourteen days' extension.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending November 19, 1904:

BROCK, F. W., Pharmacist. Detached from the Naval Hospital, New York, N. Y., and ordered to the Navy Yard, Norfolk, Va.

COWAN, J., Pharmacist, retired. Detached from the Naval Station, Port Royal, S. C., and ordered home.

DYKES, J. R., Assistant Surgeon. Detached from the *Rainbow* and ordered to the Naval Station, Cavite, P. I.

FARENHOLT, A., Surgeon. Detached from the *Monterey* and ordered to the *Raleigh.*

FITTS, H. B., Surgeon. Ordered to the *Buffalo.*

HOEN, W. S., Assistant Surgeon. Detached from the Naval Station, Cavite, P. I., and ordered to the *Oregon.*

MAYERS, G. M., Assistant Surgeon. Detached from the *Raleigh* and ordered home.

McLarty, C., Pharmacist. Detached from the Navy Yard, Norfolk, Va., and ordered to the *Solace* temporarily, and thence to the Naval Hospital, Yokohama, Japan.

Parker, E. G., Passed Assistant Surgeon. Detached from the *Buffalo* and ordered to the Naval Station, Tutuila, Samoa, and also to additional duty on the *Adams,* sailing from San Francisco on December 1, 1904.

Webb, U. R., Assistant Surgeon. Detached from the Naval Station, Cavite, P. I., and ordered home.

Young, R. M., Assistant Surgeon. Detached from the *Oregon* and ordered home.

Public Health and Marine Hospital Service:

List of Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the Public Health and Marine Hospital Service for the seven days ending November 16, 1904:

Anderson, J. F., Passed Assistant Surgeon. Granted extension of leave of absence for three days from November 16th.

Cook, B. J., Acting Assistant Surgeon. Granted leave of absence for eighteen days from November 19th.

Currie, D. H., Passed Assistant Surgeon. To proceed to Merced, Cal., for special temporary duty. November 10, 1904.

Davis, H. E., Pharmacist. Department letter of October 13, 1904, granting Pharmacist Davis leave of absence for fifteen days from October 26, 1904, amended so that said leave shall be for twelve days only.

Gassaway, J. M., Surgeon. Granted leave of absence for four days from November 23rd.

Grubbs, S. B., Passed Assistant Surgeon. Granted leave of absence for six days from November 14th.

Hallett, E. B., Acting Assistant Surgeon. Granted leave of absence for two days from November 23rd.

Stearns, H. H., Acting Assistant Surgeon. Granted leave of absence for thirty days from December 2nd.

Steger, E. M., Assistant Surgeon. Granted leave of absence for eight days from November 9, 1904, under paragraph 191 of the regulations.

Young, G. B., Passed Assistant Surgeon. Granted leave of absence for one month, or so much thereof as may be necessary, on account of sickness. November 15, 1904.

Board Convened.

Board convened to meet at the marine hospital, Port Townsend, Wash., November 21, 1904, for the physical examination of an officer of the Revenue Cutter Service. Detail for the board—Passed Assistant Surgeon J. H. Oakley, chairman. Passed Assistant Surgeon D. E. Robinson, recorder.

Promotions.

Assistant Surgeon Dunlop Moore, commissioned as passed assistant surgeon, to rank as such from June 4th.

Assistant Surgeon Carroll Fox, commissioned as passed assistant surgeon, to rank as such from July 27th.

Assistant Surgeon Matthew K. Gwyn, commissioned as passed assistant surgeon, to rank as such from August 8th.

Assistant Surgeon Charles W. Vogel, commissioned as passed assistant surgeon, to rank as such from July 27th.

Removal.

C. E. D. Lord removed from the position of assistant surgeon in the Public Health and Marine Hospital Service, November 15, 1904.

Births, Marriages, and Deaths.

Born.

Holcomb.—In Brooklyn, N. Y., on Wednesday, November 16th, to Dr. Richmond C. Holcomb, United States Navy, and Mrs. Holcomb, a daughter.

Married.

Alexander—Eaton.—In New York, on Saturday, November 19th, Dr. Lawrence Dade Alexander and Miss Marion L. Eaton.

Cheney—Barry.—In Jerseyville, Illinois, on Wednesday, November 9th, Dr. Alexander M. Cheney and Miss Theodosia S. Barry, daughter of Dr. E. L. H. Barry.

McBride—Newman.—In New York, on Wednesday, November 9th, Dr. Bernard McBride and Miss Anna V. Newman.

McCarriar—MacNeal.—In Baltimore, Maryland, on Wednesday, November 9th, Dr. Francis Davidson McCarriar and Miss Cora May MacNeal.

Parish—Griffith.—In Philadelphia, Pennsylvania, on Thursday, November 17th, Dr. Benjamin Dores Parish and Miss Helen Griffith.

Rankin—Day.—In Brooklyn, N. Y., on Wednesday, November 16th, Dr. John Francis Rankin and Miss Ellen Parker Day.

Salmon—Dewhurst.—In New York, on Tuesday, November 15th, Dr. D. E. Salmon and Miss Agnes C. Dewhurst.

Usher—Cunningham.—In San Antonio, Texas, on Thursday, October 13th, Dr. Francis M. C. Usher, United States Army, and Miss Kate H. Cunningham.

Wiemer—Dedekam.—In Cincinnati, Ohio, on Wednesday, November 9th, Dr. John A. Wiemer and Miss Margaretha Dedekam.

Died.

Allison.—In Fishkill Landing, N. Y., on Saturday, November 12th, Dr. Henry E. Allison, in the fifty-third year of his age.

Bond.—In Petersburg, Virginia, on Sunday, November 13th, Dr. Hunter A. Bond.

Hawse.—In McBean, Georgia, on Saturday, November 12th, Dr. John Hawse.

Healey.—In Newburyport, Massachusetts, on Friday, November 11th, Dr. J. J. Healey, in the fifty-seventh year of his age.

Hiers.—In Hubert, Georgia, on Thursday, November 10th, Dr. John M. Hiers.

Hopkins.—In Thomasville, Georgia, on Saturday, November 12th, Dr. T. S. Hopkins, in the eighty-eighth year of his age.

Hore.—In Brentsville, Virginia, on Thursday, November 10th, Dr. C. W. Hore.

Humphrey.—In Dresden, Germany, on Sunday, November 13th, Dr. Henry Moore Humphrey, of New York, in the eighty-fourth year of his age.

Jefferson.—In Linton, Kentucky, on Wednesday, November 2nd, Dr. George H. Jefferson, in the seventy-fourth year of his age.

Johnson.—In Greene, N. Y., on Sunday, November 13th, Dr. L. M. Johnson, in the eighty-seventh year of his age.

Kimball.—In Marion, Indiana, on Saturday, November 5th, Dr. A. D. Kimball.

Lefew.—In Roanoke, Virginia, on Sunday, November 13th, Dr. Frederick C. Lefew.

MacCallum.—In Montreal, Canada, on Sunday, November 13th, Dr. Duncan Campbell MacCallum, in the eighty-first year of his age.

O'Neal.—In Talbotton, Georgia, on Wednesday, November 9th, Dr. J. L. O'Neal.

Paine.—In Manitowoc, Wisconsin, on Monday, November 14th, Dr. Richard K. Paine, in the sixty-fourth year of his age.

Potter.—In Baltimore, Maryland, on Wednesday, November 9th, Dr. Charles H. Potter, in the fifty-first year of his age.

Shiveley.—In Pleasant Hill, Missouri, on Friday, November 11th, Dr. A. H. Shiveley, in the seventy-seventh year of his age.

Somers.—In Deansboro, N. Y., on Thursday, November 10th, Dr. Elbert Mortimer Somers, in the eightieth year of his age.

Starr.—In Washington, D. C., on Saturday, November 12th, Dr. Joseph Albert Starr, in the thirty-fourth year of his age.

Taylor.—In Castle Creek, N. Y., on Wednesday, November 9th, Dr. A. Frank Taylor, in the fifty-ninth year of his age.

Vankirk.—In Grafton, West Virginia, on Sunday, November 13th, Dr. W. F. Vankirk.

Walton.—In St. Louis, Missouri, on Tuesday, November 8th, Dr. George Walton, in the fifty-sixth year of his age.

New York Medical Journal
AND
Philadelphia Medical Journal.

A Weekly Review of Medicine

VOL. LXXX, NO. 23. SATURDAY, DECEMBER 3, 1904 WHOLE NO. 1357.

Original Communications.

CASES OF EPILEPSY CURED WITHOUT DRUGS, WITH EXPLANATORY REMARKS CONCERNING THE MODERN TREATMENT OF THIS DISEASE.

By AMBROSE L. RANNEY, A. M., M. D.,

NEW YORK.

Anything that relates to the permanent cure of epilepsy without drugs must be of interest to the medical profession. The thraldom of bromides, accompanied as it usually is with sluggishness and eventual impairment of the mental faculties, not to speak of disfiguring eruptions upon the skin, becomes in time to the epileptic even a more deplorable condition than the liability to an occasional convulsion.

At first, every sufferer from epileptic seizures naturally seeks and welcomes any drug that will either arrest the fits or diminish their frequency. He is unwilling, as a rule, to endure even for a time occasional convulsive seizures; while the exciting causes are being intelligently sought for by scientific methods. He and his friends cry aloud for an immediate cessation of the seizures by the use of drugs; and his medical advisers too often accede to the importunities of these sufferers from the date of the first convulsion without even an attempt to investigate the exciting cause of the epileptic attacks.

Yet, from the standpoint of our present knowledge of the possible causes of epilepsy, it is as absurd to begin the administration of drugs prior to a careful search for the exciting cause as to administer morphine for the radical cure of a toothache without looking for its cause.

The establishment of the important clinical fact that epilepsy is very often but a reflex condition, excited by some underlying cause, ought to convey to every medical practitioner the firm conviction that drugs should be the final resort, and never the first step in the treatment of convulsive seizures.

The permanent cure of even one case of epilepsy without the use of drugs is a fact worthy of the widest publication.

Yet in my work entitled *Eye Strain in Health and Disease*,[1] I published (in a very complete and tabulated form) all the clinical data relating to twenty-six cases of genuine epilepsy; with collected reports from these patients for years and confirmatory letters from the physicians who entrusted these patients to my care.

No such extensive table, to my knowledge has ever been compiled by any other observer, nor have the remarkable results of eye treatment upon epilepsy there published ever been disproved.

An attempt that was made some years ago to cast discredit upon these remarkable records, led to the publication by me[2] of an overwhelming collection of confirmatory evidence from both the patients and the medical advisers who referred them to me.

Out of the twenty-six patients whose records I have published in every possible detail and in tabulated form, four abandoned treatment almost from its beginning and should not be counted. Of the twenty-two remaining patients, ten, or forty-five per cent., may be considered to-day (nearly eight years since the aforesaid publication) as well (seven being completely cured and three being practically cured); amelioration of the attacks has been afforded by eye treatment in nine cases, or nearly forty-one per cent.; and no improvement has been observed in three cases, or about fourteen per cent.

I do not, however, lay much stress upon percentages of results in medical statistics. The percentage of complete recoveries in this special set of cases was indeed remarkable. It might never be again obtained in the same number.

It is sufficient to my mind, to have demonstrated to the medical profession the fact that hopeless cases of chronic epilepsy have been restored to perfect health by eye treatment after drugs had utterly failed even to control the seizures, irrespective of their detrimental effects upon the general health.

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[1] F. A. Davis, publisher, Philadelphia.

[2] See my reply to Dr. Peterson in the *New York Medical Journal*, December, 1896, and January, 1897.

I have shown in numerous contributions to this field, that have been published by me within the past six years, as well as in my work entitled *Eye Strain in Health and Disease,* why it is possible for relapses to occur during the most intelligent eye treatment of epilepsy; why it is possible for one who has had but little experience in this special line of work to overlook important steps in the treatment; why much time and intelligent observation are often demanded before the complicated eye problems of epileptic subjects can be solved; and why a general confirmation of the good results obtained and published by those who are thoroughly proficient in this field cannot be expected from oculists who know but little concerning the modern methods.

Two years ago, in a contribution to *The New England Medical Monthly* on Epilepsy and Its Modern Treatment, I reviewed at some length the opposition that was encountered years ago in my efforts to establish the relations between eye strain and epilepsy. I quote here a few paragraphs from that article. I said:

> "I shall never forget an amusing and instructive occurrence that happened to me during the early days of my investigations of the eyes of epileptics.
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> "One morning, bright and early, an oculist of international repute visited my office. He was already famous as a lecturer and an author; equally famous perhaps, as a scoffer and obstructionist to all attempts at a scientific investigation of anomalies of the eye muscles. He was a busy man during his office hours; and his visit to my office in the morning particularly surprised me.
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> "He hemmed and hawed for a while; evidently not at ease and hardly knowing where or how to begin. At last, he blurted out that he had called to inspect (if he might) my records of a certain case of epilepsy that was under my professional care at that time.
>
> "I happened to know the explanation of this unexpected call.
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> "A certain member of a family that belonged to a very wealthy and prominent set in New York city had been sent to him by the family physician to ascertain the eye conditions of the epileptic patient whose records he was so anxious to obtain. He had reported in writing that no eye defect existed. He learned that the same patient had then been referred to me; and reports had soon reached the ears of my caller regarding the almost complete cessation of epileptic seizures which had happily followed my treatment.
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> "It was somewhat amusing to me, therefore, to watch him pore for at least two hours over what he confessed 'were the most complete set of records that he had ever seen;' and it was equally gratifying to me to notice some months later that in the second edition of his book he had added about twenty pages relating to the examination of the eye muscles. These pages were extremely crude and imperfect (from the knowledge that we have to-day); but they indicated that the hours spent in my office to learn his own mistakes had conquered in part his prejudices and taught him a new field for research."

The six cases that I report here are apparently those of an absolute recovery from genuine epilepsy through the results of eye treatment alone.

The sufferers have taken no drugs to modify the epileptic seizures, since I began the eye treatment some years ago. The cessation of all convulsive attacks has now extended over varying periods of from three to sixteen years.

Two of these patients owe their recovery simply to the constant use of glasses that were prescribed by me. No operative work was done upon their eye muscles.

The remaining four owe their recovery to the relief of eye strain through a correction of maladjustments of the ocular muscles by graduated tenotomies, a surgical step that fortunately is rendered absolutely painless to-day by cocaine, and from which no confinement to the house, or cessation of business engagements is rendered obligatory.

Some months since, I published[3] a set of remarkable cases to show that the wearing of glasses alone (no matter how scientifically prescribed) is not all that is required, in some cases, to relieve eye strain. I take the liberty of quoting here a few paragraphs from that brochure, as follows:

> "Even the tyro is supposed by this time to know that the first and most important thing in the treatment of eye strain is to skilfully and intelligently correct all existing errors of refraction by glasses, properly and scientifically prescribed, accurately centered to the pupils, and constantly worn by the patient (in most instances) as a means of relief to that special type of eye strain.
>
> "There is nothing new in this theory or its practice.
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> "While it is unquestionably true that refractive work was very carelessly done years ago by many oculists, and is to-day by some; while it is true that the use of a mydriatic by the oculist was uncommon two decades ago, and that diagnoses of refractive errors were made chiefly by the use of the ophthalmoscope; while it is a matter of history that I personally was one of the first to fight for methods of examination that were not open to suspicion, but positive and final in the determination of astigmatism and latent hypermetropia; while it is an acknowledged fact that the pioneers in the study of eye strain have from the first urged upon the profession the ne-

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[3] *New York Medical Times*, June, 1904.

cessity of the greatest care and the most positive methods to determine all errors of refraction and to correct them by glasses; yet, at this late date, it seems suddenly to have dawned upon a few that it would be wise to make it appear to the medical profession that no attention, or at least imperfect attention, has been paid to refraction by those who have also studied anomalies of the ocular muscles, as an equally important and distinct type of eye strain.

"One prolific writer of this type has lately endeavored (as it would seem) to make the medical public believe that all derangements of equilibrium in the eye muscles *(heterophoria)* are due simply to refractive anomalies *(ametropia)*. He would make his readers also believe that any one who unfortunately (from his point of view) has devoted attention to the eye muscles, and who has performed tenotomies for muscular anomalies at times, has not the proper conception of scientific refractive work.

"Such statements are too absurd to discuss at any length. They would make it appear that all the remarkable instruments of precision that have been perfected within the past twenty years for the investigation of heterophoria have been and are to-day of no value; they would lead the medical profession to ignore all the observations carefully made in the past by pioneers in this field regarding the effects of correction of refractive errors by glasses upon heterophoria; they would tend to throw out of existence with one sweep all prismatic glasses, because genuine heterophoria cannot exist (from this standpoint) after the proper glasses are prescribed for refractive errors; and they would condemn all sufferers from eye strain who were not helped by glasses to hopeless misery, simply because the holder of such views had stopped at the threshold of eye examinations and refused to see the great field of further eye investigations that lies beyond.

"Every one who is familiar with the scientific investigation of heterophoria ought to know this general rule, viz., that no tests made for anomalous adjustments of the eye muscles are of any value until all refractive errors are first properly corrected by glasses, and the effect of such glasses upon the suspected heterophoria is carefully noted.

"I was surprised lately, when, during a conversation with a prominent physician over a patient that he had sent to me (for operation only) upon what seemed to be a case of strabismus, he said to me:

"'Why, doctor, you simply ordered glasses for my patient (to be worn for a month), instead of operating upon her at once, as I requested you to do.'

"I explained to him that I hoped to be able to cure the strabismus without a tenotomy, because his patient had such extreme 'ametropia'[4] that no one was justified in operating upon such a case until the effect of glasses upon the adjustment of the eyes had been observed for some time. A cure proved to be the final result in this case, through glasses alone.

"But even in the light of such results, and they are not uncommon ones in my experience, it is as manifestly absurd to claim that all cases can be relieved of nervous symptoms or heterophoria without tenotomies, as it would be to assert that tenotomies are always indicated."

These preliminary remarks, that are to be supplemented here by a report of six very interesting cases of the total arrest of epileptic seizures by eye treatment without the use of drugs, are further amplified in my work, entitled *Eye Strain in Health and Disease*. To this work my readers are referred for further details relating to the steps employed during the investigation and treatment of the eyes of sufferers from various types of eye strain.

ILLUSTRATIVE CASES.

The labor of compiling and properly tabulating all of the cases of genuine epilepsy that have been placed under my care for the investigation and correction of anomalies of the eyes or the eye muscles, is now being performed by me for subsequent publication. It is a slow process.

Unfortunately, several years have to elapse before the permanency of the results of eye treatment can be established in epileptic subjects beyond cavil or dispute.

In the interim, it often becomes extremely difficult and sometimes impossible to get written reports from a large number of patients, who are constantly changing their residences and business pursuits. Epileptics are peculiarly shy about giving written reports relating to convulsive seizures, even if they have become unpleasant recollections of the past.

The following table will explain to the general practitioner in medicine the meaning of certain terms that are used in connection with anomalies of refraction of the eyes and maladjustments of the eye muscles:

TERMS RELATED TO THE FOCUS OF THE EYE (REFRACTIVE TERMS):

HYPERMETROPIA (far sightedness); caused by a shallow eye (from the front to the back), causing an imperfect focus of objects.

MYOPIA (near sightedness); due to an elongated eye (from the front to the back), causing an imperfect focus of objects.

ASTIGMATISM; due to an irregularly curved cornea or lens, causing distortion of images on retina.

EMMETROPIA; the vision of a perfectly constructed eye.

TERMS RELATED TO THE MUSCLES WHICH MOVE THE EYES (MUSCULAR TERMS):

ESOPHORIA. A tendency of one or both eyes to deviate toward the nose.

ESOTROPIA. An actual turning of one or both eyes toward the nose (convergent squint).

EXOPHORIA. A tendency of one or both eyes to deviate toward the temple.

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[4] A term that covers all types of refractive errors.

EXOTROPIA. An actual turning of one or both eyes outward (divergent squint or wall eye).

HYPERPHORIA. A tendency of one eye to rise above the level of its fellow.

HYPERTROPIA. An actual turning of one eye above its fellow (vertical squint).

ANAPHORIA. A tendency of both eyes to assume too high a plane.

CATAPHORIA. A tendency of both eyes to assume too low a plane.

HETEROPHORIA. Abnormal adjustment of the eye muscles.

ORTHOPHORIA. Normal adjustment of the eye muscles.

ADDUCTION. The power of the internal muscles of the eyeballs. It varies in health between 25° and 60°.

ABDUCTION. The power of the external muscles of the eyeballs. It should be 8° in health.

SURSUMDUCTION. The power of the vertical muscles of the eyeballs. The right and left should be alike.

VARIOUS FORMS OF GLASSES employed by oculists:

SPHERICAL. Ground upon a convex or concave sphere. Used to correct hypermetropia and myopia.

CYLINDRICAL. Ground upon a convex or concave cylinder. Used to correct astigmatism.

PRISMATIC. Two plane surfaces of glass meeting at an angle. The thick end is termed the base of the prism. Used to relieve mechanically errors of adjustment of the eye muscles.

CASE I.—Grand mal convulsions. Complete cure without drugs. Three years of perfect health.

Mr. L., aged thirty-nine years; referred to me by Professor George M. Edebohls, M. D., of New York, on October 24, 1901.

Family History.—Both parents are dead; neither had any nervous trouble. One brother has chronic inflammation of the eyes. No heredity to epilepsy or kindred affections.

History of Case.—Patient has always had severe headaches, but otherwise has been healthy; is a farmer by profession; was struck on the head ten years prior to his epileptic seizures by a falling ladder and had a scalp wound. This healed rapidly; and no bad effects seemed to follow the injury.

In June, 1901, he had his first epileptic seizure. He had been perfectly well all day and had just taken a bath. He was sitting in a chair and suddenly felt bad and had a typical grand mal seizure, accompanied by a cry, frothing at the mouth, rigidity, clonic convulsion, etc.

Dr. Edebohls examined this patient at once, and found no abdominal or genital reflex, or albuminuria. He ordered no bromides; but gave instructions about diet, etc.

Three months later, a second severe grand mal attack occurred while the patient was in bed.

One week prior to the first visit to my office, a third severe grand mal seizure occurred, after an ordinary day's work. The patient was dozing upon a couch after his evening meal. He had been feeling perfectly well prior to the attack.

Under these circumstances, Dr. Edebohls at once instructed the patient to consult me in order to discover if any eye reflex existed as a cause of the epilepsy (prior to beginning any medication). No albumin or sugar had been found in the urine.

Eye Defects.—No "manifest" refractive errors were disclosed. Under homatropine, this patient showed: Right eye, + 0.75 S.; left eye, + 0.50 S., combined with + 0.25 C., axis 75°.

The manifest esophoria was small (2°) and the abduction was very low; but a high degree of latent esophoria was subsequently disclosed (under the influence of prisms) with no power of abduction. The tropometer showed simply weak rotations in all directions.

Treatment and Results.—Two graduated tenotomies were performed by me upon the interni, to relieve about fifteen degrees of latent esophoria. A full correction of the refractive errors was given for reading. He seldom wears his glasses for distant points.

Since the eye treatment began, this patient has never had a return of his epileptic seizures; a period of over three years. He no longer suffers from headaches, although he was a great sufferer from them prior to the eye treatment.

I have seen this patient at frequent intervals for over three years. The general improvement in his facial expression, since the relief of the esophoria, is most marked. He is buoyant, free from pain, and very active in business pursuits.

Fortunately for me, this patient was placed under my care before any deleterious drugs had been administered. The physician who referred this patient to me had personally been relieved of eye strain at my hands and had seen while he was my patient many epileptics undergoing eye treatment in my office. The necessity of an early investigation for eye strain in epilepsy had therefore been forcibly impressed upon his intelligence.

CASE II.—Grand mal attacks of epilepsy. Five years of bromides, with no improvement. Complete cure by eye treatment without drugs.

Miss E., aged eighteen years; first seen by me March 5, 1895.

Family History.—Parents living and healthy; mental diseases have occurred in paternal ancestors; kidney diseases common in maternal ancestors; no epileptic relatives.

History of Case.—Convulsions occurred when patient was a baby; the first during the eighth year, without any history of a fall or accident. Bromides were administered for five years in large doses by her physician. Her epileptic attacks occurred in spite of the bromides at intervals of from two to three months.

Under a very restricted diet treatment (with some medication) she went one year without fits; but the latter returned later, and were very severe, usually nocturnal in character, and associated with biting of the tongue.

She has been constipated for her entire girlhood and has very weak eyes.

Eye Defects.—Patient has used glasses (+ 1.00 S.) for reading, sewing, etc.

Both eyes tolerate + 1.00 S. for distance, but under atropine this patient demanded in right eye + 1.00 S., combined with + 0.50 C., axis 90°, and in left eye + 1.00 S., combined with + 0.50 C., axis 90°. This combination was subsequently ordered for constant wear.

Like many sufferers from epilepsy and other severe nervous disturbances, this patient showed at first but a slight amount of manifest esophoria, associated with low abduction. Yet she disclosed, later on, a very high degree of latent esophoria, that was brought out by the use of prisms, with practically no abducting power.

Treatment and Results.—This patient was forced to wear glasses at first, as a full correction of her imperfect refraction. These did not modify her esophoria; nor was there any improvement in her epilepsy, until a graduated tenotomy had been performed by me upon each internus.

After the complete relief of her esophoria, this patient abandoned the constant use of glasses, but used them for close work.

Slowly, the epileptic attacks began to be less frequent and severe. Within two years, they ceased entirely; and a report of a total cessation of fits for over six years was received from her father. She has married during this interval and is regarded as absolutely well.

Case III is a very remarkable one, from the standpoint of my past experiences with epileptics.

The child had no more eye strain than hundreds of children have, and frequently endure, without marked injury to the general health. The error of refraction discovered in this case was only about one third of the amount that I personally endured as a child; and which became an unsuspected cause of my physical collapse later in life.

The latent far sightedness in this child was not accompanied by any maladjustment of the eye muscles. A simple spherical glass, worn constantly, arrested the convulsive seizures.

Case III.—Grand mal attacks of epilepsy, cured by glasses alone, without the use of drugs.

Master G., aged twelve years; referred to me by Dr. E. W. Hedges, of Plainfield, N. J., September 21, 1898.

Family History.—Mother has severe neuralgic headaches; no hereditary tendencies to nervous diseases.

History of Case.—Patient has never been a strong child. He was circumcised at the age of two years, with a view of improving the general health. In the seventh year, the patient had a rupture, and has worn a truss since.

Three years ago, he was taken (while in school) with a severe epileptic seizure, was brought home, and had a succession of fits all day from 9 a. m. to 5 p. m.; no marked gastric disturbance existed. He had no more fits for nearly two years.

During the past year, the fits have returned. At first they came at intervals of three months; but lately about once each week.

Five minutes before each attack, this boy begins to see very indistinctly. Everything appears to be moving; and finally he sees only a "ball of fire." Vomiting occasionally follows the convulsion, but not invariably. During the convulsion, he froths at the mouth; becomes totally unconscious for from five to ten minutes; and his head and limbs are convulsed. His parents do not recall any epileptic cry.

Eye Defects.—Prior to the use of homatropine, this patient tolerated only a + 0.50 S. glass and showed no muscular defects. Under homatropine, both eyes required a + 1.25 S. glass. No muscular errors (manifest or latent) were ever disclosed, although many tests were made by me from time to time.

Treatment and Results.—A full correction of the latent hypermetropia by + 1.25 S. glasses was ordered for constant wear. The arrest of the fits was instantaneous; and up to the last report they had not returned.

The last letter received from the parents concerning this boy was dated October 19, 1904. It says:

"I wish you could see him. He is perfectly well and strong. This afternoon he is practising for some athletic games. I thank you for your share in his good health."

Case IV is one of those that was happily placed under my care before any bromides or other deleterious drugs had been given to the patient.

His improvement after a relief of some of his eye strain was instantaneous. Some months later, when a convulsion unexpectedly occurred, more eye strain was disclosed.

The ordering of prismatic glasses to relieve the remaining eye strain, stopped all recurrence of the fits. Six years of perfect health have followed this relief.

Case IV.—A case of complete cure of grand mal attacks of epilepsy by eye treatment; without an existing refractive error to cause the convulsive seizures.

Mr. B., aged twenty-nine years; married; first seen by me April 16, 1896; referred to me by a relative, whom I had previously treated.

History of Case.—Patient is a contractor and has to scale ladders and to walk during business hours over the beams of uncompleted buildings. Hence his epileptic seizures endangered his life and led to great alarm in his immediate family.

Without apparent cause, he was suddenly taken with a typical attack of grand mal on returning home one afternoon. A typical cry; tonic and clonic spasm; lividity of the face; frothing at the mouth; biting of the tongue, etc., made the diagnosis most positive. Subsequently, a few attacks followed within a short space of time. He was brought to my office before being put under any medication.

Eye Tests.—Patient showed normal vision in each eye and tolerated no spherical or cylindrical glasses. Under homatropine, a very slight degree of latent hypermetropia was disclosed (+ 0.50 S.), but up to this time this patient has never required a glass, although + 0.50 S. was advised for use in reading and close work.

Only a moderate degree of manifest esophoria (2°) was at first disclosed, with a low abduction; but, subsequently, under the influence of prismatic glasses, a very high degree of latent esophoria, with a proportionately low abduction, was found to exist.

The tropometer showed nothing abnormal in rotations, except to confirm the existence of the esophoria.

Treatment and Results.—A graduated tenotomy was performed by me upon both interni, and prismatic glasses were worn between the operative steps. No return of the fits occurred for several months. The patient then consulted me, and more latent esophoria was disclosed. I gave the patient at this visit a 3° prismatic glass for each eye, to be worn constantly during the summer months; intending to do another graduated tenotomy in the fall. No further epileptic seizures occurred; and the patient, up to the present time, has " never seen time to complete the radical step for the remaining esophoria " and prefers to wear the prismatic glasses.

Over six years have now elapsed since the last epileptic seizure. The patient is a very busy man and reports (through his wife) that he is in absolutely perfect health.

CASE V has been under my observation for nearly seven years; and for six years and a half the patient has been absolutely free from epileptic seizures. Drugs had failed to relieve these seizures prior to the eye treatment. This patient had taken enormous doses of bromides prior to placing himself under my care.

CASE V.—Grand mal attacks of epilepsy. Complete recovery after relief of eye strain without operative procedures or drugs.

Mr. H., aged thirty-two years, married, merchant, visited my office first on April 13, 1898. He was not referred to me by any physician, but had been shown some of my published cases by a medical friend.

Family History.—Father living and well at seventy years of age; mother had sick headaches when young, but is now well at sixty-six years of age; only sister is living and well; several cases of phthisis in both paternal and maternal ancestry.

Eye Defects.—The refraction (under homatropine) was: Right eye—1.00 S., combined with — 1.50 C., axis 90; left eye — 1.00 S., combined with — 1.50 C., axis 75. His muscle tests were: Left hyperphoria, ¼°; exophoria, ½°; adduction, 27°; abduction, 6°; sursumduction, R. 2°, L. 2½°. The tropometer gave the following rotations: Upward, R. 21, L. 21; downward, R. 50, L. 50; nasal, R. 42, L. 42; temporal, R. 40, L. 40.

History of the Case.—This patient was perfectly well up to twelve years of age, when he had his first attack of dizziness or confusion of the head while skating. This confusion had never entirely passed away. He had his first epileptic seizure when fifteen years old. Since then his attacks have varied in frequency from nine weeks to four years apart; but he has been during all these seventeen years and is now under heavy doses of the mixed bromides. His attacks are of the grand mal type. They have all been nocturnal, except four. He has severe convulsions, biting of the tongue, complete unconsciousness, followed by stupor; but no cry or aura. For the past six months he has had a flushing of the head and dizziness several times every day.

Treatment and Results.—When he came to me he was wearing a full correction for his refraction, and no change was made in this until three years later, when a slight change in his cylinders increased his vision to $^{20}/_{15}$ in each eye. All bromide was at once stopped, and prisms were tried for hyperphoria, but were soon taken off and a prism of 4°, base up, was added to the refractive glass over each eye, for the weak upward rotation shown by the tropometer. Within two weeks after stopping his bromides he had two slight seizures and was confined to his bed with intense pain in the head, inability to walk alone, nausea, and almost complete nervous collapse. He was then allowed 22½ grains of bromide a day for three months, then it was cut down to 15 grains a day for a month, then to 7½ grains a day for a month, and finally stopped altogether.

I have seen this patient once a month ever since January, 1899, and he has had no attack of epilepsy of any kind since April, 1898, a period of six years and a half. He has taken no medicine since January 1, 1899. He has worn his compound myopic cylinders with the 4° prism, base up, over each eye continuously, and has had no other treatment. He has gained forty pounds in weight, has no headache or dizziness, and is attending closely to his business daily.

Had this patient applied to me for treatment prior to the happy invention of that most valuable instrument, the tropometer, which was unknown a decade ago, I doubt if a recovery would have been possible. Low arcs of rotation of both eyes upward were discovered by means of this modern instrument.

CASE VI certainly demonstrates beyond the possibility of contradiction the fact that twenty-four years of epileptic seizures did not indicate any organic changes in the nerve centres. It proves also that the results of the treatment remain permanent. It proves that eye treatment accomplished a cure when all other methods of treatment had utterly failed. It proves that the esophoria, which was corrected by graduated tenotomies, never returned (as many opponents of this treatment maintain that it will), and the power of the externi, after being carried to the normal standard of power by surgical procedures, has remained normal ever since.

If this one case of epilepsy was all that I had ever reported as confirmatory of the statement that eye strain can produce genuine epilepsy, it would be considered as indisputable proof, I think, before any jury of laymen in a court of law.

This case of epilepsy is reported here because epileptic convulsions had persisted twenty-four years before the eye treatment was suggested; because they had been attributed to masturbation in early life and to excessive venery in later years; and because the relief of eye strain has totally arrested convulsive seizures for eighteen years and enabled the patient to use his eyes continuously during that period without any discomfort.

The patient was a personal friend of mine for many years prior to my familiarity with the eye treatment of nervous diseases. He placed himself under my professional care and guidance as early as 1871; and during long absences from New York he had kept me in touch with various forms of treatment that he had unsuccessfully tried for the relief of his epilepsy.

Case VI.—Chronic epilepsy, uncontrolled for twenty-four years by drugs, and instantly cured by the relief of eye strain. No recurrence of fits for eighteen years.

Mr. H., aged forty-three years, merchant, married. First examined by me for eye defects in 1886.

Family History.—His father died of paralysis; one brother was a confirmed drunkard; one sister is a terrible sufferer from sick headaches; there is no hereditary tendency to phthisis.

History of Case.—When seventeen years of age, this patient began to have severe epileptic fits. As a boy he had been addicted to masturbation, and quite early in life he had formed an association with a woman that led to excessive venery. To these excesses many physicians whom he had consulted had attributed his convulsive seizures.

I saw him first as a patient in 1871. His epilepsy had then existed about eleven years. He was extremely bright mentally in spite of drugs, and had been very successful financially. His epileptic seizures averaged about four a year; and up to that date were usually nocturnal in type. He had, however, been seized in the daytime on several occasions where his fits exposed him to great personal mortification and comment among his friends. One of these attacks had occurred in a theatre, prior to his first visit to my office. It was a prolonged and very severe grand mal seizure, preceded by an aura of faintness and accompanied by biting of his tongue. All of his past attacks had been, as far as he knew, of the same general character. He had spent a small fortune in undergoing various forms of treatment (dietetic, electrical, and medicinal) without any beneficial effect upon his epileptic seizures.

I pushed bromides in 1871 upon this patient to the extreme point for many months. They prolonged the interval between attacks somewhat; covered his face with bromide rash, upset his digestion, made his mental faculties somewhat more sluggish, in his opinion, and gave him practically no benefit. The severity of his attacks seemed rather to increase than diminish under bromides.

This patient then went south, and I did not see him for several years. On his return he reported that his epilepsy was unchanged. I suggested that he allow me to try the eye treatment, which was then comparatively a new one.

Eye Defects.—In January, 1886, his eyes were first examined by me. He showed, under atropine, hypermetropia (totally latent) of 2.50 D. in each eye; no astigmatism; a manifest esophoria of 4°; adduction, 30°; abduction, 4°. Subsequently a much higher degree of latent esophoria was disclosed by this patient.

Treatment and Results.—Graduated tenotomies were performed upon both interni, and glasses were ordered to be worn constantly for a full correction of his refractive error, + 2.50 S.

From the first operation, in January, 1886, up to the present date (a period of eighteen years), he has never had a convulsion. The last tests made on his eyes (some three years ago) showed: No esophoria; no hyperphoria; adduction, 45°; abduction, 8°; normal vision in each eye with his spherical glasses of + 2.50 D. From time to time he has had his reading glasses increased in strength by me, as his presbyopia developed with advancing years. During this period of eighteen years he has had to use his eyes almost constantly in his business.

SUMMARY AND CONCLUSIONS.

My experience in investigating the causes of epilepsy for nearly twenty years lead to the following conclusions:

1. Epilepsy is not necessarily an organic disease; hence there is always hope of a radical cure.

2. A very large proportion of epileptics suffer from some type of reflex, viz., ocular, abdominal, genital, or other local sources of nervous irritation.

Of these reflexes, the eyes are unquestionably the most frequent seat of trouble.

3. No medication should ever be employed to control epileptic convulsions until every possible exciting cause has been intelligently sought for and scientifically combated.

4. The refraction of all epileptic patients should first be carefully determined under the influence of a mydriatic.

I usually employ homatropine to dilate the pupils and to relax the accommodation. If in doubt after this step, I invariably use atropine. Such tests are positive.

I have seen many instances where a total cessation of fits for weeks has been caused by the use of atropine in the eyes. Furthermore, the effect of paralyzing the accommodation is often of great aid in getting a patient to accept a strong hypermetropic glass for constant use.

5. It is usually advisable to first correct fully the refraction of epileptic patients by properly prescribed glasses; and to have the patient wear them for a time, before positive conclusions are

arrived at regarding any maladjustments of the eye muscles (heterophoria).

6. A large proportion of epileptics unquestionably suffer from heterophoria (see preceding table of terms). After the correction of errors of refraction by glasses for a time, the tests for maladjustments of the eye muscles should again be made.

Such tests will then be far more reliable and trustworthy. than if made before the refractive errors have been intelligently corrected.

7. I think I have proved by the cases adduced here that the prescribing of glasses to correct errors of refraction has always been considered by me as vitally important in the treatment of eye strain. It should always be done most accurately and scientifically.

It is imperative to do this first; and to have patients wear glasses for refractive errors constantly for some time (whenever marked muscular errors exist) in order to determine if they are modified by the refractive correction.

Refractive errors may cause apparent heterophoria in a certain proportion of cases; and proper glasses may sometimes modify genuine heterophoria.

There is indisputable proof that genuine heterophoria may coexist with refractive errors (as an independent source of eye strain), and it may also be found in cases where absolutely perfect refraction exists.

8. One radical and permanent cure of genuine epilepsy without drugs offsets a thousand failures, as proof of a scientific discovery.

9. Modern instruments and modern methods of eye testing are indispensable to the eye treatment of epilepsy.

10. The most serious refractive errors and muscular defects in the orbits do not necessarily create eye symptoms; even when reflex symptoms produced by existing eye defects are extremely severe.

11. The percentage of cure of chronic epilepsy under skillful eye treatment will naturally be modified greatly by the abnormal eye conditions found, the physical condition of the patient, the amount of drugs that have been given to the patient, and the complications that may coexist with eye strain.

12. No one is ever justified in promising to an epileptic a complete cure of epilepsy by any method of treatment.

Such promises are only made by quacks, or by irresponsible and uneducated persons. The general concurrence of medical opinion is against the curability of epilepsy by drugs. Fits may be thus held in check for long or short periods; but permanent cures of epilepsy after a complete cessation of drugs are practically unknown.

13. To colonize epileptics or to place sufferers of that type in private sanitariums without any investigation of their eyes and eye muscles cannot be too strongly condemned, in my opinion.

Personally, I believe that some private sanitariums flourish and yield large revenues to their owners chiefly from the receipts gained through suffering humanity whose eye conditions have never been intelligently and carefully investigated and never will be, so long as they are wealthy and likely to be permanent inmates.

14. I think the total percentage of epileptics who suffer from eye strain as an important factor is very large; after first deducting from the total number the comparatively small number of cases that owe their epileptic seizures directly to some organic lesion of the brain or to a depression of the skull. Almost all chronic epileptics give a history of falls that have some time injured the head in some way. Few of them, however, have enough depression of the skull to make trephining imperative, and in every such case the injury must have preceded any epileptic seizures to make it probable that the fits were the direct result of the injury.

15. The duration of eye treatment in epilepsy varies from three months to three years. Most of the work is done during the first six weeks; but long intervals of rest, between the successive operative steps that are commonly demanded, often extend the period of treatment over quite a long period whenever the convulsive seizures are not totally arrested.

345 MADISON AVENUE.

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Surgeons at Pan-American Congress.—Dr. Rudolph Matas, secretary of the section in General Surgery for the United States, asks those who wish to contribute papers to send titles to him at No. 2255 St. Charles Avenue, New Orleans. He also announces that the United Fruit Company's agents are offering as a special inducement to American congresistas a reduction of the regular fare for the round trip from New Orleans to the Isthmus to $50.00, that is, $25.00 each way. The steamers leave New Orleans every Friday; the last steamer to leave New Orleans in time for the opening of the congress will sail on December 30, 1904, at 11 a. m. It takes about four and one half days to reach Colon and seven days on the return trip on account of a stop over at Port Limon, where ample opportunity is given to tourists to visit San Jose, the beautiful capital of Costa Rica—"the Paris of Central America"—where the most picturesque tropical scenery can be seen at this season, under the most favorable conditions.

SOME OBSERVATIONS UPON THE NON-OPERATIVE TREATMENT OF SQUINT: THE WORTH AMBLYOSCOPE.*

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AND

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In a paper, entitled The Orthoptic Treatment of Convergent Squint in Young Children, which was read before the Ophthalmological Society of the United Kingdom, upon October 18, 1900, Mr. Claud Worth, of London, described an instrument which he had devised for this purpose, and advanced a theory to explain the occurrence of squint. This paper was followed by one upon convergent squint which was presented to the Hunterian Society, April 24, 1901, and in the spring of this year, the author embodied his views in full, in book form, in a volume entitled *Squint; Its Causes, Pathology, and Treatment.*

Without attempting to review at length these papers or the contents of his exceedingly interesting book, the salient points regarding his theory of the ætiology of squint will be given, in order that those of the Fellows who are not familiar with Worth's writings may understand the principles which underlie the instrument which he has introduced.

He says: " In a case of convergent squint there is, in addition to the most obvious symptom, the deformity, always a defect of the fusion faculty, and there is nearly always a suppression of the vision of the deviating eye. In the human infant, the motor coordinations of the eyes are already partially developed at birth. During the first few months of life these serve (in the absence of any disturbing influence) to maintain *approximately* the normal relative deviations of the eyes. I have found distinct evidence of binocular vision in the sixth month. Normally the development of the fusion faculty is well advanced by the twelfth month, and complete before the end of the sixth year. When the fusion faculty has begun to develop, the instinctive tendency to blend the images formed in the two eyes—the desire for binocular vision, as it is called—will keep the eyes straight. When the fusion faculty is fairly well developed, neither hypermetropia, nor anisometropia, nor heterophoria can cause squint. In fact, then, nothing but an actual muscular paralysis can cause an eye to deviate, in which case the resulting diplopia is intolerable. Sometimes, however, owing to a congenital defect, the fusion faculty develops later than it should, or it develops very imperfectly, or it may never develop at all. Then, in this case, there is nothing but the motor coordinations to preserve the normal relative directions of the eyes, and anything which disturbs the balance of these coordinations will cause a permanent squint. Thus the *essential cause of squint is a defect of the fusion faculty.* In the presence of this fundamental cause, the eyes are in a state of unstable equilibrium, ready to squint either inwards or outwards on slight provocation." This provocation may be supplied by hypermetropia, anisometropia, hyperphoria, esophoria, exophoria, specific fevers, violent mental disturbances, and heredity.

In addition to this original conception regarding the existence of a fusion faculty, Worth's observations upon the amblyopia in the squinting eye are most instructive and suggestive, and being based upon a study of 2,337 cases, many of which were in infants, presented for examination by relatives at the first suggestion of the eyes crossing, are of interest in the controversy as to whether the amblyopia precedes and causes the squint, or whether it follows the deviation and is consequent upon it.

Worth believes that the amblyopia is in some rare cases congenital, but that in nearly all instances it is due directly to the loss of function in an eye which is never used. He states that he has found that at the commencement of a case of squint, the vision is good, and practically equal in both eyes, but that the loss of sight is so rapid in the deviating eye that the power of central fixation is often lost within eight or ten weeks, the loss of sight being the more rapid the younger the child. Thus in a child who begins to squint continually at the age of eighteen months, five or six months will elapse before the eye loses the power of central fixation, while if the deviation has occurred first at the age of three years, almost a year will elapse before central fixation is lost. Worth says that he has never seen central fixation lost in a case in which the squint had first appeared after six years of age, and that after six years of age amblyopia ex anopsia seldom takes place to any great extent.

He believes that amblyopia ex anopsia, like congenital amblyopia, concerns almost entirely the central and paracentral region of the retina, and produces no contraction of the peripheral limits of the field of vision. The loss of vision in acquired blindness is much greater than in cases of a congenital origin, for in the latter vision is never lower than $^6/_{60}$, while in extreme cases of acquired blindness vision may be reduced to counting fingers a foot or two from the face, due to the presence of a large central scotoma.

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* Read before the Ophthalmological Section of the College of Physicians of Philadelphia.

With these points in view, therefore, namely, the existence of a fusion faculty and its early development, and the presence of good vision in the early stages of squint in the eyes of infants, and its rapid loss as soon as the eye has deviated, Worth was convinced that the early treatment of squint was most essential, and in 1895 he introduced an instrument which he termed the amblyoscope, by means of which the fusion faculty and the vision in the squinting eye might be developed at the same time. This instrument is a form of stereoscope, so modified that binocular vision may be obtained through it, no matter how great the deviation of the squinting eye, and that by an ingenious illumination of the pictures which are submitted to the eyes, the desire to suppress the image of the squinting eye is done away with: it is possible, too, to use the instrument in a child of average intelligence of three to three and one half years of age.

Mr. Worth describes the amblyoscope as follows: "The instrument consists of two halves joined by a hinge at A (see Fig. 1). Each half consists of a very short brass tube joined to a longer tube at an angle of 120°. The diameter of the tubes is 1.5 inch. Each half of the instrument is closed by a flat oval plate of brass at AX, the inside of this plate being a mirror. GH, GH are the object slide carriers. The object slides consist of devices drawn on translucent paper and gummed on glass slips. At AB is a convex lens having a focal length of 5 inches—the distance of the reflected image of GH. AB, AB are slots into which other lenses from the trial case may be inserted if desired. D, E, F is a brass arc, with a slot at one end, in which is the binding screw F, and at the other end a twisting screw D. When F is loosened, the two halves of the instrument can be brought together to suit a convergence of the visual axes up to 60°, or separated to suit a divergence of as much as 30°. When the screw D is twisted, F being tight, an amplitude of but 10° is permitted."

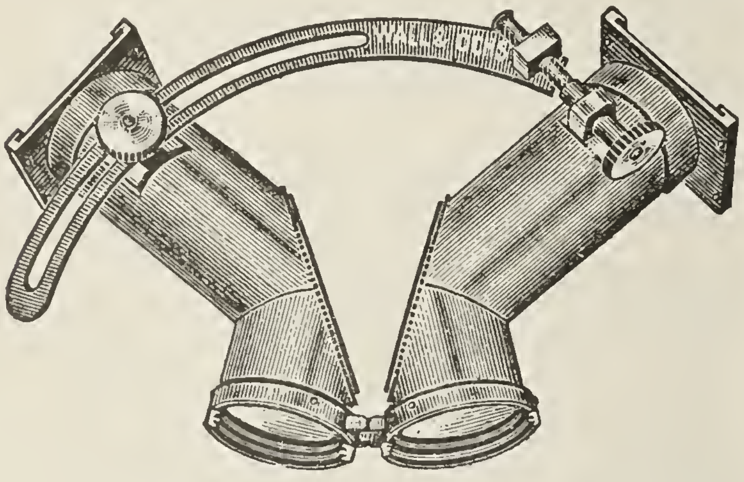

FIG. 1.—The Worth Amblyoscope.

Mr. Worth regulates the illumination of the tubes by shifting the lights backward and forward before the two eyes. The junior writer has found it much easier to equalize the illumination of the two images by means of smoked glasses, and for this purpose had the discs MN, MN added to the objective ends of the tubes (see Fig. 2); each disc having four circular openings, one empty, and the other three having a No. 2, 4, and 6 smoked glass, respectively. By swinging these discs it has been found quite easy to equalize the illumination, though Mr. Worth prefers the movement of the separate lights, having tried the smoked glasses and deciding there was not contrast enough to be obtained in this way.

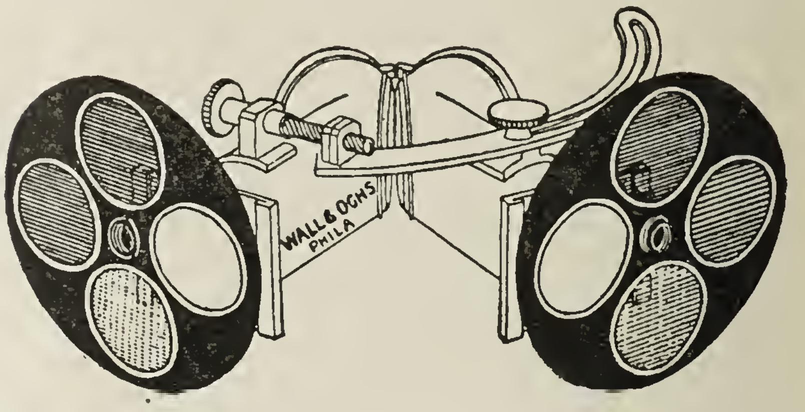

FIG. 2.—The Amblyoscope with superimposed discs to equalize the illumination.

As the illumination for the tubes, Mr. Worth uses electric lights, but two ordinary candles placed about four inches from the ends of the tubes have been found to give a perfectly satisfactory light.

The amblyoscope is suspended from a stand with a horizontal arm from which two chains descend to be hooked, one into each of the tubes. The child is held on the surgeon's knee, wearing his correction and with the angle of the amblyoscope roughly adjusted to his deviation. If possible, it is well to bring up the vision of the amblyopic eye to ¼ or at least $^1/_5$ of normal, as it will then be found much easier to overcome the suppression of the image of the deviating eye, which is the first thing to be accomplished.

This is done by placing two quite dissimilar slides (Fig. 3) in the slide holders, and finding out which the child sees, then lessening the illumination before that eye, at the same time increasing the light before the other eye until both images are seen; the suppression has then been overcome and the child is using both eyes at once.

The next step is to get the two images together, not necessarily fused, but in juxtaposition, and by far the easiest way to do this is to have the patient do it for himself. Place, say, the bird and cage, or the picture frame and a picture in the slides, and let him move the tubes himself, making the bird go in and out of the cage, the picture in and out of the frame and in this way he will be using his eyes together and so begin the development of his fusion sense. At first it is a common thing for children to be apparently quite unable to place the two images together, the slightest movement of the tubes making them cross each other.

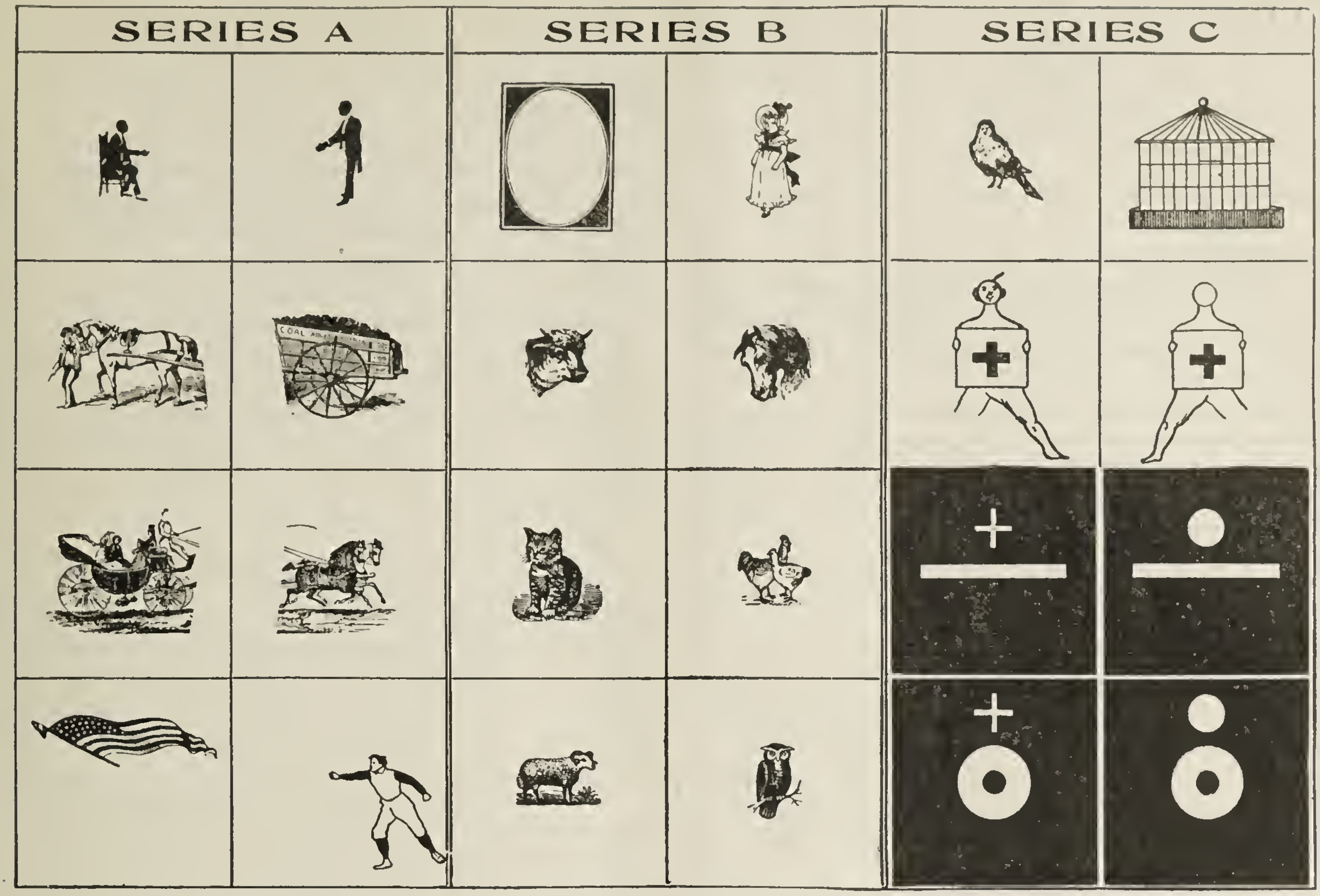

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FIG. 3.—Slides for use in the Amblyoscope.

When the patient has advanced so that he readily places the two images together, the slides requiring absolute fusion may be started, any pair serving each as part of the whole picture being used. A vertical deviation has usually manifested itself before this point is reached by one image being decidedly above the other, and staying so until corrected with prisms placed base up or down in the slides AB. Mr. Worth makes no mention of this vertical deviation, but it has been found present in a large majority of patients trained by the writers, and is very annoying unless at least partially corrected by suitably placed prisms. If, however, no vertical error has appeared before accurate fusion is attempted, it will very often manifest itself at this point and should be treated accordingly.

From this point on advance is fairly rapid, all endeavor being to increase the amplitude of fusion until a large range is obtained, 15° being apparently about the normal amplitude.

The final step is to give a sense of perspective and, if the child is intelligent enough, the best means of this is with stereoscopic exercises, the pictures being such as would interest a young child, for it must be remembered that if fusion training is to be carried out successfully it must be completed by six, or at most, seven years of age.

The squint may gradually lessen during the exercises, it may suddenly disappear, or a large part may persist even after a good amplitude of fusion power has been obtained, requiring an operation to complete the cure. It seems more prone to persist in older children who have squinted from infancy, whose eyes have been in a faulty position so long that secondary changes have taken place in their musculature. If, however, they have good fusion power, when the eyes are set approximately straight by operative means, this will hold them so and give them perfect single binocular vision.

The attention of the writers was directed to the amblyoscope shortly after Mr. Worth read his first paper, and for a year or more a number of cases have been subjected to treatment with it. Although the instrument was employed in nineteen cases in all, detailed study and prolonged observation were possible in but nine, as the others for various reasons failed to continue the treatment. The notes of these nine cases, in an abbreviated form, are as follows, with a synopsis of the condition of two cases which were examined with the amblyoscope, and found to have perfect fusion sense with, however, a convergent squint without their correction, a high hypermetropic refractive error, and a certain amount of amblyopia in the deviating eye:

CASE I.—M. B., aged six years; O. S. has turned in past four years, and she has been wearing glasses at intervals during that time, but has had no other treatment. Is now wearing

O. D. plus 2.50 S., with plus 0.50 cyl., axis 90°.
O. S. plus 2.50 S.

Can fix with O. D., but prefers O. S. Static convergence, 40°; dynamic convergence, 50°.

O. D. V. $^{6}/_{10}$ c. c. $^{6}/_{6}$,
O. S. V. $^{1}/_{45}$ c. c. $^{1}/_{45}$.

Fundus quite normal in each eye, with about 3 dioptres of hypermetropia. Was ordered atropine for refraction, which was used for four days, the error then being found to be

O. D. plus 3.25 S., with plus 0.50 cyl., axis 60° — $^{6}/_{5}$,
O. S. plus 3.00 S., with plus 0.75 cyl., axis 110° — $^{1}/_{45}$.

Plus 1.00 S. was taken off each eye and glasses were ordered to be worn constantly, with O. D. covered with a pad two hours daily, and trainings with the amblyoscope of a half hour's duration, twice a week.

In three weeks the vision in her amblyopic eye had improved from $^{1}/_{45}$ to $^{6}/_{45}$, her squint (static) had lessened to 30°, and she could fuse when the angle of the tubes suited that of her convergence, with 3° left hyperphoria.

Four weeks later her vision in O. S. was $^{6}/_{30}$, her convergence and fusion power not improving.

The training and occlusion of O. D. was continued for three months longer, with practically no change. It was then stopped and the patient was not seen until six months later, November 11, 1903, when no change was found either for better or worse. Atropine for O. D. only was advised to see if further improvement in O. S. V. was possible.

This patient was past six years of age when the training was started and in addition was handicapped by an almost blind eye. The result is probably as good as should have been expected. The eyes will probably have to be put straight by operative means.

Case II.—L. C., aged six years, has squinted since six months of age, the squint alternating at times, though O. D. is usually the deviating eye. Was "refracted" first one year ago; is now wearing

O. D. plus 2.50 S., with plus 0.50 cyl., axis 90°,
O. S. plus 2.50 S., with plus 0.50 cyl., axis 90°.

O. D. V. c. c. $^{6}/_{30}$, O. S. V. c. c. $^{6}/_{20}$; static convergence, 35°; dynamic, 45°. On causing either eye to fix there is quite marked nystagmus, with eccentric fixation on testing visual acuity. When both eyes are uncovered no nystagmic movement is present.

Atropine was prescribed to make sure of her refractive error, the fundus being perfectly normal in each eye, with about 3 D. of hypermetropia. Under atropine it was found that she had 2.50 D. of hypermetropia in each eye, with 0.50 D. of astigmatism axis 90°, exactly the correction she was wearing. This was lessened 1.00 D. in each eye, and the eccentric fixation disappeared, it probably being due to an over correction, which is probably as injurious to a squinting eye as none at all, the blurring discouraging all efforts at fixation with that eye.

The amblyoscope was used twice a week, half an hour each time, and in two months the vision had improved to $^{6}/_{20}$ and $^{6}/_{15}$, respectively, and static convergence had lessened to 10°; fusion power, however, being present in but an exceedingly minute degree. Though treatment was continued very regularly for three months longer, no further improvement was made, and the nystagmic movements were still present on monocular fixation.

An older sister of the patient was seen, who had quite marked chorioiditis in O. D. with about 15 D. of myopia, vision, fingers at one foot. Both upper central incisor teeth had been capped with gold, the teeth always having been bad. The father of these two children is so deaf that he can no longer follow his occupation of drug clerk. Several efforts were made to take the fields of this patient, but on account of the nystagmic movements it was found to be impossible. Even if there was no central lesion, her age would probably have prevented the accession of greater fusion power.

Case III.—S. T., aged four years and six months; eyes have been crossed during the past year, with apparently no preference as to the fixing eye; mother thinks eyes are quite straight at times; has had no treatment; fixes well with either eye: static convergence, 25°; dynamic, 30°; vision as tested with the white ball seems a little low in O. S.

Was ordered atropine for refraction, the fundus being normal in each eye, with an estimated hypermetropia of about 3 D.

Under atropine retinoscopy shows

O. D. plus 2.25 S., with plus 0.50 cyl., axis 90°,
O. S. plus 2.00 S., with plus 0.75 cyl., axis 90°.

Plus 0.50 D. was taken off the correction of each eye, and the remainder was ordered for constant wear, with training with the amblyoscope.

The child was brought very irregularly, and but four times for training, and then was not seen for eight months, when she came to Howard Hospital with an older brother, who had a conjunctivitis. No squint was then apparent with her correction. She was told to report for a careful examination, but failed to do so.

On account of her youth, the good vision in each eye, the alternating character of her squint, and perhaps its occasional appearance, it is very possible that the correction, and few sittings with the amblyoscope have developed her fusion faculty to such an extent that her squint is cured. When training with the amblyoscope her fusion power seemed weak. The last time her convergence was measured it had lessened from 25° to 10°.

Case IV.—M. D., aged six years; O. S. has converged since two years of age; "refracted" and has worn her correction since four years old; had a tenotomy of left internal rectus muscle four months ago; now fixes well with either eye, but prefers O. D.; static convergence, 30°; dynamic convergence, 40°.

O. D. V. $^{6}/_{10}$ c. c. $^{6}/_{6}$,
O. S. V. $^{6}/_{30}$ c. c. $^{6}/_{30}$.

Was ordered atropine for refraction:

O. D. plus 3.25 S. $^{6}/_{6}$,
O. S. plus 2.50 S., with plus 1.50 cyl., axis 90° — $^{6}/_{30}$.

Plus 1.00 D. was taken off each eye, and the new correction was ordered for constant wear, a pad to be worn over O. D. two hours daily, and amblyoscopic training twice a week.

In two months O. S. V. had come from $^6/_{30}$ to $^6/_{15}$, and in three months her static convergence was but 5°. The mother could bring her regularly no longer, so training was stopped. Her fusion power was poor, with no amplitude, and 5° left hyperphoria, which was present from the first.

She was seen again eight months later when her condition was absolutely the same, except her static convergence was 10°, instead of 5°, as formerly. This case is only an addition to the many unsuccessful ones in whom fusion training has been begun too late.

Case V.—J. H., aged seven years; brother of patient No. VI; began to squint at two years of age following a severe attack of cholera infantum; has had no treatment; O. D. V. $^6/_6$?; O. S. V. $^6/_{15}$?; fundus normal in each eye, with about 3 D. of hypermetropia; fixes well with either eye, but prefers O. D.; static convergence, 35°; dynamic convergence, 40°.

Atropine ordered for refraction:

O. D. V. $^6/_{45}$, with plus 2.75 S., with plus 0.75, cyl., axis 75° = $^6/_6$,
O. S. V. $^3/_{45}$, with plus 3.75 S., with plus 1.75, cyl., axis 90° = $^6/_9$?

Plus 1 D. S. was taken off each glass, the correction was ordered to be worn constantly, and two amblyoscopic trainings a week were instituted.

In two weeks he could fuse when the images were placed to suit the angle of his convergence, with 5° left hyperphoria. One month later he had developed some amplitude of fusion, about 3°, and his static squint had decreased from 35° to 15°. The next month there was no change in any way. The patient was not seen again for five months, when his vision was found to be the same, but his convergence was but 10°. Since then he has been trained regularly twice a week, a half hour each time, and has developed a fusion amplitude of between 5° and 10°, his squint remaining the same. His eyes have been in a converged position so long (nearly six years) that secondary changes have probably taken place in their musculature, requiring operative measures to set them straight: when this is done the fusion sense which he has acquired should keep his visual axes parallel, and give him binocular single vision. The good vision which he had in each eye to start with was a very important factor in his improvement.

Case VI.—M. H., aged six years; a sister of patient No. V; has squinted since two years of age, squint appearing after a fall; at first O. D. was the deviating eye and O. S. the fixing eye; was taken to a general practitioner, who very properly advised the use of atropine in the fixing eye. This was done, and continued, no other treatment having been attempted, until what was the fixing eye became the deviating eye, with but $^1/_5$ vision when she was brought for treatment, three years later. She now fixes with O. D. and squints with O. S.; her static convergence being 50°, when first seen, and her dynamic convergence being 60°. Fundus is quite normal in each eye, with an estimated hypermetropia of 4 D. O. D. V. $^6/_6$?, O. S. V. $^6/_{30}$.

Atropine was ordered for refraction, and under cycloplegia her error was:

O. D. plus 3.25 S., with plus 1.00 cyl., axis 90° = $^6/_6$,
O. S. plus 3.75 S., with plus 2.00 cyl., axis 75° = $^6/_{30}$.

Plus 1.00 D. S. was taken off each eye and training with the amblyoscope ordered twice a week, to be started at once. In addition, O. D. was ordered occluded with a pad two hours daily.

The first sitting with the amblyoscope showed that she was absolutely unable, not only to fuse, but to even recognize when the two images were placed together. Left hypophoria of 5° was also present, this being the only case in which the vertical deviation was a hypophoria of the squinting eye. It must be remembered, however, that O. D. was originally the deviating eye, until atropine was used in O. S., causing O. D. to fix; it certainly seems plausible to believe that there was originally a hyperphoria of O. D., and when the horizontal deviation changed, the vertical deviation remained the same, still having the visual axis of O. D. above that of O. S.

She had been under treatment a month when, while attending her for an attack of amygdalitis, Dr. James McKee found that she had adenoids. The removal of these was advised, but not accepted until insisted on about five months later, the patient being under observation continually for three months with no change in her condition in any way, except a slight ability to fuse when the angle of the tubes suited that of her squint.

She was not seen then for four months, during which time there was no change. Her adenoids have now at last been removed, and she seems in much better general condition. Atropine is being used in O. D. to try and bring up the vision of O. S. from $^6/_{30}$, where it still is. Her field has been taken in that eye and is quite full for form, with no scotomas; it was thought she might have a central scotoma to account for the continued poor vision in that eye. Her squint is 15° less than it was nine months ago, but otherwise her ocular condition is identically the same.

Since this paper was read O. S. V. has been brought to $^6/_6$, perfect fusion has been obtained with a range of 10°, a tenotomy of O. S. Rect. Int. has been done and the eyes are perfectly parallel, with single binocular vision.

Case VII.—A. H., aged eight years; began to squint two years ago; was first "refracted" one year ago, but has not worn her correction the past five months; fixes well with either eye, but prefers O. S.; static convergence, 10°; dynamic convergence, 15°. O. D. V. $^6/_{30}$, O. S. V. $^6/_9$. Fundus normal in each eye.

Atropine was ordered for refraction, and under its influence her vision was

O. D. $^6/_{45}$, with plus 2.50 S., with plus 1.00 cyl., axis 90° = $^6/_{15}$,
O. S. $^6/_{25}$, with plus 2.50 S. = $^6/_{7.5}$.

Ordered less 1.00 D for each eye, a pad over O. S. two hours daily, and the amblyoscope training twice a week.

It was found that she could fuse at once with the amblyoscope, though she had no amplitude. In one month she had developed about 10° of amplitude, her squint had disappeared both with and without her correction, and her vision was O. D. V. c. c. $^6/_{12}$?, and O. S. V. c. c. $^6/_6$.

The late appearance of her squint allowed her to develop her fusion power to a certain point, but the poor vision in O. D., which had less than the ¼ vision which Mr. Worth says is desirable before perfect fusion power can be developed, prevented its further growth and the eye began to squint.

Case VIII.—C. M., aged nine years; did not begin to squint until two years ago after a severe attack of diphtheria; an older brother also squints; fixes well with either eye, but prefers O. D.; static convergence, 10°; dynamic convergence, 15°; is wearing a plus 2.50 D. S. on each eye.

O. D. V. $^6/_{7\cdot5}$ c. c. $^6/_6$, p'tly,
O. S. V. $^6/_{30}$ c. c. $^6/_{22\cdot5}$.

Fundus normal in each eye.

She was ordered atropine to make sure of her total refractive error, which was found to be 3.00 D. of hypermetropia in each eye, no astigmatism being found, so her glasses were not changed. A pad was ordered over O. D. two hours daily, and training with the amblyoscope twice a week.

At her first training she could fuse when the tubes were arranged to suit her convergence; in three weeks she could fuse readily, her static convergence remaining at 10°, the vision in O. S. having come up to $^6/_{15}$.

In another month she could fuse readily, with about 10° amplitude, her squint had disappeared, and her vision was $^6/_6$ and $^6/_{12}$, respectively, for O. D. and O. S.

This patient, like patient VII, did not begin to squint until late; after developing her fusion faculty to a small degree, her amblyopia in O. S. became too much and she began to squint. It needed her correction, and a further development of her fusion sense to place her eyes in a perfectly normal condition, except a slight amblyopia in O. S., which still remains and probably always will, though she will never squint again.

An interesting thing about this case is the fact that her mother voluntarily said the child began to get better marks in school as soon as her eyes came straight, especially in penmanship: before this the teacher was always scolding her for not keeping her pen on the lines in the copy book.

Case IX.—R. S., aged five years; began to squint three years ago after an attack of whooping cough; O. S. is the eye which converges always; can fix well with either eye, but O. D. is preferred; has had no treatment, except the correction of his refractive error, which was done a month ago at Howard Hospital. He is wearing 1.00 D. S. less than his full correction in each eye.

O. D. plus 6.25 S., with plus 0.50 cyl., axis 90°,
O. S. plus 6.25 S., with plus 1.50 cyl., axis 90°.

With this correction he has apparently full vision in each eye as tested with the white ball. The fundus is normal in each eye; his static convergence is 20°.

He is being trained with the amblyoscope, having a half hour sitting twice a week. He can fuse slightly now, though he has had but four trainings.

Case X.—I. W., aged nine years; has squinted with O. D. at times since she was eighteen months old; was advised by physician when child was two years old to keep O. S. covered up for two hours daily; this treatment was persisted in for a year and a half. Now the child may go for a month without squinting, then she will not feel quite well, or something will upset her and O. D. will again turn in. This is what Mr. Worth calls occasional or premonitory squint when it occurs in young children, as it is usually a forerunner of permanent deviation.

She fixes well with either eye; when made to squint by strong accommodation she lets O. D. stay in, her static convergence being 20°. O. D. V. $^6/_{30}$, O. S. V. $^6/_9$. With the amblyoscope she fuses readily, the angle of the tubes being such that, without change, the writer fused the images quite readily.

She was ordered atropine and three days later was "refracted," her error being:

O. D. V. $^2/_{35}$, with plus 6.00 S., with plus 1.75 cyl., axis 75° = $^6/_{15}$,
O. S. V. $^3/_{35}$, with plus 6.00 S., with plus 1.75 cyl., axis 90° = $^6/_9$.

She was ordered plus 2.00 S. off each eye, with which in two weeks she had the same vision, no squint, but 5° of esophoria with Maddox rod, no vertical error being present.

The early covering of her left eye saved it from becoming quite amblyopic, and enabled her to develop a certain amount of fusion power, which was upset at times by the strong accommodation needed to get a clear image, and she over converged. Her weak fusion sense was not powerful enough to bring her visual axes back to parallelism.

The following case is one which is identical in every way with Case X, except that the patient was "refracted" soon after her squint appeared, instead of having "the blinder" treatment. Both of these cases show how important it is to begin treatment of these patients with convergent strabismus as early as is possible, for many of them will, if vision is corrected, develop their fusion faculty without further treatment.

Case XI.—S. L., aged nine years; began to squint when three years old; "refracted" shortly afterward, and has worn correction ever since; now she cannot be made to squint with her correction on, but without it, strong accommodation will cause O. D. to converge 45°. O. S. cannot be made to converge, either with or without her correction. O. D. V. c. c. $^6/_{22\cdot5}$, O. S. V. c. c. $^6/_{15}$. She had worn these glasses for some time and is now being "refracted" at Howard Hospital. No diplopia could be elicited with colored glasses, and with the amblyoscope she fused readily with about 15° amplitude.

(*To be concluded.*)

EARLY INTRAUTERINE DEATH, WITH UNDUE DELAY IN THE OCCURRENCE OF ABORTION THEREAFTER (MISSED ABORTION).

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The class of case to which I desire to draw attention, viz., that in which the embryo, in its habitat the uterus, perishes at an early stage of its existence and thereafter continues its sojourn for a more or less indefinite period of time is one of great clinical interest. In textbooks, either of midwifery or gynæcology, this condition has never received sufficient consideration, and it is too summarily dealt with under the altogether inappropriate designation of missed abortion. The abortion is undoubtedly missed in the sense that this event does not so closely follow upon the death of the embryo as is naturally expected, but abortion will assuredly take place, consequently the event is not missed, but merely unduly delayed. During this period of delay the product of conception undergoes important changes, changes consequent upon the cessation of vitality, and it is noteworthy that the subject of such a derangement is as a rule induced to seek advice more on account of the absence of all signs of activity than in consequence of the existence of any definite symptom. The disorder is one which may occur at any time during the child bearing epoch of the woman, in a woman who has already borne several children, as well as in one who has recently begun to live a marital life. In the former case lactation is at times accountable for the production of this anomalous phenomenon, for it occasionally results when conception occurs whilst the activity of the mammary glands is being maintained. When it happens in a woman soon after marriage, it appears to be dependent upon some supervascular condition of the endometrium, for in such the menstrual discharge subsequent to marriage has generally not only been increased in quantity, but has recurred too frequently. It may also, however, be induced through the agency of physical shock, since it may follow upon a fall or, in yet another group of cases, it may be determined by a hyperatrophy of the chorionic villi. We shall discuss the mode of action of these various causes later, but at this stage a clinical record of one typical example of each of these varieties may prove of much service.

Example 1. Lactation.—Margaret R., aged twenty-six years, and married eight years, has had four children, but no miscarriage. The last child, born two and a quarter years before the patient came under my observation, was suckled for two years. The menstrual discharge reappeared fifteen months after this confinement; it recurred regularly thereafter for five months, but during the succeeding five months it was again held in abeyance. When the child was twenty-five months old, i. e., about one month after weaning, and when the mother presumably was five months pregnant, a hæmorrhagic discharge made its appearance externally from the vagina and continued for fourteen days. Simultaneously with the appearance of this vaginal discharge the patient experienced slight pain in the back and lower abdomen. The pain was never very troublesome and the hæmorrhagic discharge was never great in amount. One month after the cessation of this hæmorrhagic discharge, the patient came under my care and the following is a record of the physical signs then noted, when the patient presumably was seven months pregnant: Palpation of the abdomen revealed nothing of note. The cervix uteri, which was not soft, was located somewhat toward the left wall of the pelvis. The os uteri was not open. In front, and rather to the right of the cervix, was felt a lobulated swelling of about the size of a small cocoanut. By bimanual examination, the summit of this swelling was felt about one inch above the pubes. The swelling, which was the enlarged uterus, presented a semicystic feeling and appeared to contain a somewhat solid body. One month after these signs were recorded, these in the mean time having undergone no perceptible change, a mass was expelled from the vagina, the patient having during the immediately preceding twelve hours complained of laborlike pains and of slight hæmorrhage. The mass expelled was rather ovoid, almost round, in shape and was about two and three quarter inches in diameter. Over the greater part of its extent, was placental thickening, and this placental portion was much lobulated, and looked very fibrous. One wall, either the anterior or the posterior, was quite thin, and through this thinned portion the fœtus in a membranous sac had escaped during the process of extrusion from the uterus. The fœtus, a female, which was well formed, was very much shrivelled. The development of the parts indicated a fœtus of about four and one half months, but the size suggested that it was much younger.

Example 2. Hyperæmia of the Endometrium.—Mary M., aged twenty-nine years, and married, fifteen months, had never been pregnant. For eight months after marriage the menstrual discharge recurred more frequently, and was more profuse than it had hitherto been. Thereafter, menstruation was held in abeyance for seven months, but during the latter three months of this period, there had been, from time to time, a little brownish discharge per vaginam. No pain had ever been complained of. At this stage, the following physical signs were recorded. The lower abdomen was somewhat tender to the touch. There was an ill defined fulness in the right iliac region, but the percussion note over this and over the rest of the abdomen was resonant. The cervix uteri was small, and the os quite closed. In front, and to the right of the cervix, was a soft, lobulated swelling, which was the body of the uterus, slightly enlarged. The breasts displayed nothing worthy of note.

Fourteen days after the foregoing record was made, the patient began to complain of pain in the back and in the lower abdomen, in the back chiefly. Almost simultaneously, there was a free discharge of blood from the vagina. When the pain and hæmorrhage had persisted for six hours, a sac, of about the size of an orange, was expelled. The wall of this sac, over one quarter of its extent, was thin but dense, whilst over the remaining three quarters, it was about seven eighths of an inch thick. On opening the sac, there was found an embryo of about seven weeks' development, and three distinct tuberous projections were observed at the placental area. These bulgings contained old blood. The placental villi were extraordinarily fibroid in character.

Example 3. Physical Shock.—Edith M., aged thirty-two years, and married nine years, has had two children, but no miscarriage. The last child was born three and one half years ago. About six months before coming under my observation, the patient, having then gone fourteen days over her usual monthly period, had a fall. One week after this accident, there appeared a slight hæmorrhagic discharge from the vagina, and, from time to time ever since, there has been a slight recurrence of this discharge. During the week subsequent to the fall nothing unusual was noted, and there has never been any pain.

The following are the physical signs recorded when the patient was presumably seven months pregnant: The hypogastrium was occupied by a small, firm swelling, which extended from the pelvis and reached two and one half inches above the pubes. The cervix uteri, which was somewhat soft, was located far back in the pelvis, and the os was rather patulous. The vaginal roof anteriorly was depressed by a swelling which was continuous with the hypogastric swelling, and the whole was the enlarged uterus. The swelling, which was fairly uniform in outline, presented a semisolid feel, and the size was equal to that of a pregnancy of about eleven weeks. After this patient had been under observation for three weeks, an ovoid mass was expelled from the vagina, with some pain in the back and lower abdomen. This mass, which was of the size of a large turkey's egg, was composed almost entirely of placental looking material with blood extravasated into it. In a cleft in this body lay a small bag, of the size of a large almond, shell included, and in this sac was found a yellowish, fibrous looking structure, which, when carefully washed, proved to be an embryo of about seven or eight weeks.

Example 4. Hyperatrophy of the Chorionic Villi.—Alice D., aged thirty-three years, and married ten years, has had three children and three miscarriages. The last child was born three years ago. When the patient came under my notice, she stated that she had been last properly unwell six months previously, and that when she considered herself three months pregnant, she started losing a little blood from the vagina, and that she had lost a little, on and off, ever since. She remarked that she had never felt movements. Since the hæmorrhage appeared, she had suffered slightly from pain in the back and in the left iliac region.

Physical signs. The abdominal examination revealed nothing to note. The cervix uteri was not soft, and the os was not patulous. The uterus, enlarged to the size of a pregnancy of eight weeks, was felt in front by the bimanual examination: it was quite regular. Six weeks after the aforesaid physical signs were noted, and when the patient had practically been pregnant for eight months, more severe pains and extra hæmorrhagic discharge were complained of, and, within a few hours thereafter, a mass of the size of a hen's egg was expelled from the vagina. The sac, which was very fibrous, displayed hardly any hypertrophied villi, and on opening it a fœtus of about eight weeks was found.

The symptoms associated with this disorder, as I have already remarked, are more those of a negative than a positive character. On account of a more or less prolonged period of amenorrhœa, and possibly of some sickness, the patient in the early days has usually considered herself pregnant, but misgivings regarding the existence of this state are eventually engendered when other ordinary manifestations of this physiological phenomenon, such as changes in the breasts, enlargement of the abdomen, and movements of the fœtus, fail to be displayed. Whilst the product of conception is undergoing retrograde change in the uterus, pain, slight or severe, may or may not be complained of, but more or less external hæmorrhage is generally noted, and occasionally it is the occurrence of this alone which causes the patient to seek advice. The embryo as a rule has been dead some weeks or months before the patient comes under observation; consequently in discussing the physical signs presented, we remark at the outset that there is an absence of, or some disparity about, those evident signs which may already have attracted the attention of the patient, to wit, the abdominal and mammary manifestations; and which would, under ordinary circumstances, have been apparent had the pregnancy been a normal one. The uterus may never have risen out of the pelvis or it may merely have extended to one or two inches above the pubes; hence palpation of the abdomen may fail to reveal anything worthy of note, except perhaps a little tenderness in the hypogastric and iliac regions. So, too, the breasts seldom exhibit the appearances characteristic of pregnancy, and it but rarely happens in non-lactation cases that colostrum is obtainable from them. The signs, however, which aid us chiefly in the diagnosis of this derangement are those elicited by careful bimanual examination. These are referable solely to the body of the uterus, since the cervix may or may not be more or less soft, and the os may or may not be patulous. To define clearly the body of the uterus is not at all times an easy matter, but we seldom experience much difficulty in determining that there is not that amount of enlargement which the clinical history predicted. The consistence of the uterus, and commonly the contour, too, are very different from those of a normal pregnancy. Manipulated between the internal and external examining fingers, it is invariably found to be more firm altogether, and less cystic than it should be, whilst, on account of a somewhat plastic and inert condition of the uterine tissue generally, the organ may mould itself to, and assume exactly the shape of, the contained body, or, quite independently of this complete coaptation, it may nevertheless display a more or less distinctly lobulated configuration.

It is undoubtedly very remarkable that the uterus may for weeks and months tolerate a dead ovum in its cavity without endeavoring to make, more frequently than it apparently does, some attempt to rid itself of such a guest, and that no evident constitutional disturbance in the mother should result from this undue detention. The tolerance is due to some peculiar state of the viscus whereby its irritability is greatly impaired, or even annulled, a state which is accountable, too, for the anomalous shape which the uterus, in any given case, may exhibit; whilst the absence, on the other hand, of constitutional disturbance in the mother depends largely upon the fact that the ovum invariably maintains its integrity until it is extruded.

In the majority of cases the derangement is preceded undoubtedly by some disturbance of the uterine vessels, especially those located in the subepithelial tissue; a disturbance which impairs their functional activity and causes them readily to rupture. Hence it is that in the class of case now referred to blood is commonly extravasated into the decidua placentalis or between this and the placental chorion. These extravasations hasten the process of disorganization, but in the first instance they result from, and are not a cause of, the disorder. It occasionally happens that uteroplacental sinuses become obliterated, and yet no breach in their continuity appears to have taken place. Lactation, or rather superlactation and sexual overexcitation are, as I have already remarked, predisposing causes, but the vascular change, just referred to, is merely one of the factors at work aiding in the production of the phenomenon. It is extremely probable that this, as well as the anomalous behavior of the uterus generally, is dominated by some obscure nerve influence. The mode of action of physical shock, even, may not be entirely through the agency of extravasated blood. In yet a few rare cases the derangement is attributable to hyperatrophy of the chorionic villi, but whether this is the result primarily of some embryonic or maternal delinquency, it is impossible to say. The placental chorion and the serotina are so interdependent, and act and react so harmoniously upon each other, that any failure of response on the part of one is bound to exert a prejudicial influence upon the well being of the other. This condition of hyperatrophy is closely allied to another phenomenon, displayed occasionally by the uterus, when the dissolutionary changes consequent upon parturition transcend the usual amount, and induce a state of superinvolution. We are ignorant of the causes which determine the placental site, but the villi, over an area corresponding to about one fifth of the chorionic surface, and which are destined to participate in the formation of the placenta, begin, toward the fifth or sixth weeks of pregnancy, to show signs of still further development; whilst the villi over the remaining four fifths undergo a retrograde change and, gradually declining, eventually disappear. This atrophic process may, however, invade the placental as well as the non-placental area, and its effect may, of course, be so disastrous that by degrees the embryo may be starved to death. It is quite feasible that, under such circumstances, a state of toleration on the part of the uterus may be induced, and the product of conception, after it has perished, may thereby be retained for a somewhat indefinite period.

Æsculapian Society of the Wabash Valley.—The Æsculapian Society of the Wabash Valley concluded its forty-eighth annual session in Paris, Ill., on October 28th, 100 physicians being in attendance. A sensation was sprung in a resolution providing that certain members who have received newspaper notices of successful surgical operations be required to appear before the board of censors at the semiannual meeting in May to show cause why they should not be expelled for violation of the code of ethics. Officers for the ensuing year were elected as follows: President, Dr. T. W. Moorehead, of Terre Haute; vice-president, Dr. L. J. Weir, of Marshall; secretary and treasurer, Dr. H. McKennan, of Paris; board of censors, Dr. M. A. Boor, of Terre Haute; Dr. F. E. Bell, of Mattoon; Dr. C. Barlow, of Robinson; Dr. E. S. Allen, of Arcola, and Dr. J. A. Hoffman, of Pesotum.

SHOULD PULMONARY TUBERCULOSIS BE TREATED AT HOME?

By R. W. CRAIG, M. D.,

PHŒNIX, ARIZ.

The recent tendency of many medical men has been more and more to pay no particular attention to climate in the treatment of pulmonary tuberculosis, but to endeavor to carry out a plan of home treatment. In general, this seems to me to be a decided step backward, certainly in those cases that have the necessary means to secure proper climatic treatment, and the other natural advantages that are most likely to result in the cure of their disease.

For the great majority of tuberculous patients much the best results can be undoubtedly obtained in a comparatively warm, dry, and equable climate. Not that any particular climate has a specific action upon the disease, but in certain climates, the best results can be obtained from an outdoor life. Where can the patient spend the most time in sunshine, where are the most equable temperature, the least humidity, and air most free from dust and bacteria?

That outdoor life alone is not all sufficient in the treatment of these cases is demonstrated by late statistics, which show that thirty per cent. of the adult population of the Philippines, where outdoor life is the common mode of existence, die of some form of tuberculosis.

The four factors which most directly contribute to favorable climatic conditions are sunshine, relative humidity, temperature, and altitude.

The value of a maximum amount of sunshine cannot be overestimated, as the humidity and temperature depend upon it in a large measure. Its influence upon the mental condition of the average patient is very pronounced. When the day is cloudy and the humidity great, he is depressed and can hardly be induced to get out of the house. When the sun is shining brightly, his melancholia disappears, and he wishes to put in as much time as possible out of doors. The entire area comprised of Arizona, New Mexico, Western Texas, Southern California, and Nevada has an unusual amount of sunshine as compared with Eastern States.

As an illustration in point, the average daily sunshine for the month of February in Phœnix, El Paso, and Redlands is over eight hours. Numerous points of observation in Arizona are reported by the United States Weather Bureau as having less than fifteen entirely cloudy days during the year 1903.

Humidity.—A low relative humidity, which depends to such a great extent upon the sunshine, is probably the most important of all climatic conditions in its relation to the cure of pulmonary tuberculosis. In Northern Asia, the Rocky Mountains, and the great plateaus of Central Africa, where there is a minimum amount of moisture in the atmosphere, the disease is comparatively rare, and clinical evidence has taught us that tuberculous cases improve much more rapidly and that the percentage of recoveries is much greater where the air is dry.

Temperature.—Temperature in itself is not so important, except as to its influence upon the total amount of sunshine and the relative humidity. Its greatest influence is perhaps in the amount of time a patient is allowed to spend out of doors. On the whole, a high average annual temperature is perhaps the best for the majority of cases.

The temperature of this region, particularly Arizona, is higher by an average of 20° to 25° in summer, and 30° to 40° in winter, than that of the Eastern and North Central States, yet the humidity is so low in summer that the sensible temperature is much less. As a matter of fact, the sensibility of the human body to heat is really less in Arizona than in New York. A temperature of 110° in Arizona is also much less unpleasant than a temperature of 90° in Chicago. The annual mean temperature for the western division of Arizona for 1903 was something like 74°, which permitted the patient to live in a house tent the entire year.

Altitude.—Altitude does not seem to have any very pronounced influence on tuberculosis. It is true that many cases improve markedly after removing from the East to a high altitude in the mountains. But it is questionable whether the benefit derived is not due primarily to other causes, notably dry air and improved hygienic surroundings.

There are, unquestionably, important blood changes at a higher altitude and the assimilative powers are temporarily stimulated, but it is open to question whether or not the benefit is not more than balanced by the over nervous stimulation and tachycardia produced. In an active state of the disease a high altitude is certainly contraindicated on account of the extra amount of work thrown upon an already weakened heart.

Tuberculosis is practically a universal disease, and it is not at all unlikely that all mankind are more or less susceptible to it as they are to measles and scarlet fever. The very fact of the universal existence of the disease, as proved by post mortem work, also proves that the statistics ordinarily given out does not adequately represent the percentage of recoveries, as by far the larger number of cases that recover are never recognized during the course of the disease and are only revealed at the necropsy. As a matter of fact, from sixty to seventy-five per cent. of all cases of tuberculosis recover, as proved by necropsies, when death has been the result of other causes. Clinical reports from the modern open air institutions largely confirm these statistics, and Walther, Detweiler, and Trudeau report from twenty to thirty-five per cent. of all cases admitted to their institutions as being cured, as evidenced by absence of bacilli, a return to good general health, and the resumption of the ordinary vocations of life.

Every case of pulmonary tuberculosis embraces two conditions; one destructive with caseation, sepsis, and its accompanying disastrous effects upon the general nutrition; and the other a process of cicatrization, fibrosis, and repair; the result in any given case being determined by the individual resisting power of the body against the ravages of the disease; or, in other words, the capability of the body to limit the growth and destructive action of the bacilli. To increase this resisting power must be the true solution of the cure of tuberculosis, whether it be by the open air treatment or by the use of drugs.

The very multiplicity of remedies is prima facie evidence that specific treatment of the disease is, to say the least, extremely unsatisfactory. It can at best be used as but an auxiliary to some more far reaching and fundamentally correct principle. As yet the results obtained from the use of the serums have been practically nil. The value of tuberculin, even as a method of diagnosis, is questionable. Any drug that has a tendency to disturb the digestive apparatus is positively contraindicated, and I think the personal observations of those men who come in contact with large numbers of tuberculous cases will bear me out in the statement that more damage has been done by the use of creosote, guiacol, ichthyol, etc., than can be counterbalanced by benefits derived.

A successful treatment of pulmonary tuberculosis to-day depends above all upon an early diagnosis and the intelligent application of three vital principles, viz., open air day and night in a *suitable climate*, good food, and as nearly as possible absolute rest, physical and mental. With these conditions fulfilled most cases of tuberculosis should recover, or at least become so arrested as to be harmless.

Delayed diagnosis so often means to the patient loss of all chance of restoration that I feel we cannot be too careful in all suspicious cases. After gross pathological changes have taken place in the respiratory tract, and bacilli are present in the sputum, the diagnosis is easy, but there is no good reason why pulmonary tuberculosis should not be diagnosticated in the prebacillary stage before even a cough has developed; that this diagnosis is being made much earlier than in past years is evidenced by the great increase in the number of incipient cases that are now sent to our health resorts and sanitoria. The malaise, loss of appetite, malnutrition, a continued afternoon acceleration of the heart's action, night sweats, and evening temperature are as characteristic and classical of tuberculosis as is the presence of bacilli in the sputum.

When such a case is recognized and put under the proper hygienic surroundings, in a climate admitting of an outdoor existence, the patient should recover, but if the disease is not diagnosticated until a secondary infection has taken place, and he has rigors, high temperature, profuse expectoration, and the other symptoms so common to advanced cases, no change of climate, or change in his method of living can do more than prolong life. I believe that in an early diagnosis lies our only real hope in the successful treatment of this disease.

Tent Life.—During the past few years it has been my good fortune to come in rather close contact with numerous patients who live in one or the other of several tent colonies in the immediate vicinity of Phœnix, and it has been my observation that as a rule they are almost entirely ignorant of the ordinary rules which should govern the daily life of every individual who has tuberculosis, and I think it is our duty fully to acquaint these patients with the nature of their illness as much for their own safety as for the safety of others. It is not possible properly to treat a patient for tuberculosis, who is not fully aware of the nature and gravity of his disease. Rules made for his guidance will not be obeyed unless he knows what is the matter with him, and that their violation will be followed by immediate disastrous results. No harm can come from telling a patient that he has tuberculosis, and explaining to him that it means a persistent, continuous struggle for his existence for a term of years. He will soon recognize that his welfare depends largely upon his own efforts and will become a good patient, where otherwise he would be but an indifferent one.

Unless the patient understands this fully, as soon as he begins to improve he is likely to stop treatment, thereby greatly lessening his chances of recovery. Unremitting attention is demanded of both patient and physician as to the mode of life to be followed in these cases. It is easily possible for a patient unwittingly to do himself more damage in one half day than can be repaired in a month.

Much has been said on the question of exercise for pulmonary invalids, and its value has been maintained by many good men, but I believe it has been the experience of most men who have seen large numbers of these cases that, as a general proposition, to take much exercise is the worst thing that a patient can do, and almost every so called cold and exacerbation of the tuberculosis is due to taking too much exercise.

Almost every patient that comes to Arizona has been advised by his family physician to "get out doors and rough it." This he generally does soon after his arrival, and has to call in a physician to prescribe for his "cold," which is nothing more nor less than a result of his over exertion. Any exercise or exertion which produces fatigue, anorexia, malaise, or causes an increase in the evening temperature is a positive injury, and should be strictly prohibited.

When the evening temperature reaches 99½° to 100°, short walks or drives may be allowed in the morning when the temperature is normal or below, but an evening temperature of 100½° or 101° is an absolute contraindication to exercise.

Frequently patients will be met who have little or no temperature but a marked degree of tachycardia, which is an even greater contraindication to exercise than temperature.

Any method by which the patient can be induced to spend the most time out doors is to be warmly commended. There is a general impression amongst the laity that with the doors and windows open they enjoy all the advantages of proper ventilation, but this is not correct. If the window faces the wind, air is forced to a greater or less extent into the room, but there is not much interchange of air. If opposite windows are open the draft is likely to produce mischief. By far the best way in favorable climates is to have the patient live in a tent house where he can have all the comforts of the home and be practically out of doors the year round.

Tent architecture is a very large factor in the success of tent life. The tent for one person should have a frame work of lumber and should be about 15 by 18 feet in dimensions. An absolutely tight board floor is very essential, and a tight wall should be built around the side, about three feet from the floor. Over this the tent should be stretched, and a heavy fly should cover the entire tent. This gives enough space for two comfortable rooms. The upper part of the walls should be made detachable, so that they can be raised and lowered and converted into an awning which changes the tent house into the best sort of pavilion. Tent life, when governed by well selected rules, becomes thoroughly enjoyable and the patients who generally at first have exaggerated ideas of its inconvenience become loath to leave it. Results obtained from this out door life, studied clinically, may be briefly summarized as follows: Loss of temperature, increase of appetite, improved nutrition with consequent gain of weight, decrease of cough and the disappearance of night sweats, and also an absence of the "colds" which are the bane of the consumptive's existence. When carried out under intelligent direction, these results are in such marked contrast to those secured where patients live in boarding houses and hotels, that the most skeptical can but be convinced.

PREGNANCY AND SUCCESSFUL PARTURITION IN A PATIENT WITH ADVANCED CARCINOMA OF THE CERVIX.

By CHARLES A. L. REED, A. M., M. D.,

CINCINNATI.

One of the most potent arguments against high amputation of the cervix and in favor of complete hysterectomy in carcinoma of the uterus, is the fact that pregnancy with disastrous parturition may occur, if the organ or even the body of it is left in position. The danger thus incurred by the patient, to say nothing about the possibility of hereditary taint in the offspring, is so great that the maternal mortality under these circumstances in the absence of the Cæsarean or Porro operations must be nearly 100 per cent.

A case that must be credited to the other side of the account, however, is that in a woman upon whom I did a high amputation of the cervix simply to arrest hæmorrhage in the presence of a carcinoma that had already involved the pelvic lymphatics and had given rise to the constitutional dyscrasia that is so frequently a later development in this disease. The history, very kindly furnished me by her attending physician, Dr. J. A. Shirley, of Winchester, Ky., is as follows:

Mrs. F., aged thirty-eight years, mother of six children, four of whom were drowned together, noticed, within a few months after the above sad event, herself flowing too freely and often, and with more pain than she usually suffered at her regular monthly periods. The usual domestic remedies proving unvailing, she came to me for advice.

Upon examination, the bright red, extensive, and burrowed ulceration of the external os, together with the foregoing history, unhesitatingly led to the diagnosis of cancer. With as little delay as possible I sent her to Dr. Charles A. L. Reed, of Cincinnati. He concurred in the diagnosis of malignancy and suggested immediate vaginal hysterectomy; at the same time venturing the opinion that it was an ideal case for such operation. Upon attempting the procedure, however, some days later, he found such involvement of the surrounding structures as to render total extirpation impossible. He contented himself with removal of a portion of the anterior lip of the cervix and, after a few days' stay of the patient in the hospital, sent her home speedily to succumb to the ravages of the disease; this she did not do, and instead. quite soon became pregnant; the removal in all probability of the diseased obstructive mass by the doctor making entrance of the fecundating product possible.

On discovering this fact I at once informed my medical friend, who replied that it was impossible. I kept quiet for some weeks until assured of the correctness of the diagnosis, when I told him that I had never known a fœtus in utero to kick more vigorously.

Being convinced of the actual state of affairs, he very properly advised me to send the patient to the hospital when approaching maternity, as it would, he thought, be impossible for her to be delivered by the natural channel; in fact, considering a Cæsarean or a Porro operation imperative. To the hospital she refused to go a second time, preferring to die, as she felt she must, at home, surrounded by relatives and friends, than to die among strangers.

So matters drifted along, while the period of expected confinement approached nearer and nearer. When her time was nearly up it was decided that when her physician, Dr. T. S. Allen, of Bloomingdale, Ky., found her in actual labor, that I should be summoned.

Accompanied by Dr. I. H. McKinley and the lamented Dr. N. V. Prewitt, we repaired to the home of the patient, ten miles away, with much fear and trembling, as Dr. Allen had expressed the opinion some weeks before that on account of a cartilaginous ring as large as his index finger at the external os of the patient, delivery by way of the vagina could not be accomplished.

We found on arrival the posterior half of uterine cervix dilated and apparently free from the growth, which seemed to be attached to the anterior half of the os and to extend well forward. It was thought that the diseased mass could be incised sufficiently to admit of the introduction of the forceps. After surgical anæsthesia and the introduction of the catheter into the bladder, it was discovered that to cut entirely through the excrescence would endanger, if not actually penetrate, the bladder walls.

Hence this method of attack was abandoned. The hand introduced into the vagina, and finger after finger into the os, dilatation enough to admit and lock Elliot's long forceps was obtained, and delivery was accomplished. Quite a furious hæmorrhage followed, although the uterus was now well contracted. The flow was found to come from the offending growth, which had been torn in numerous directions much after the order of old leather. Packing uterus and vagina firmly with iodoform gauze checked the bleeding. Dr. Allen looked after the patient during the puerperium, and she got up in about the usual time. She lived about eighteen months, afterwards dying of an extension of the disease. The child, a vigorous female, is living to this good day, eight or nine years old.

Having read somewhere recently that sudden grief or fright, especially the latter, was a cause of cancer, the query with me is: Was it true of my patient? Surely an abundance of grief was present, as we can readily imagine, by the sudden taking away of four children at the selfsame moment.

AN ACCIDENT WITH THE ANTRUM TROCAR.

By BEAMAN DOUGLASS, M. D.,

NEW YORK.

The trocar perforator for the antrum which bears my name has been considered an absolutely inoffensive instrument in the hands of even a beginner. For myself, I have never until now seen an accident occur from its use. This perforator is designed to reach the antrum through the inferior meatus of the nose, where, after cocainization, the point of the needle is introduced one inch behind the anterior tip of the inferior turbinate body, and carried upward into the angle between the external nasal wall and the inferior turbinate body. Here it is pushed through the external nasal wall into the antrum. Many tests made on specimens and hundreds of occasions in clinic work have demonstrated that it invariably reaches the antrum at a point about the middle of the internal wall.

Three days ago, in making an exploratory puncture of the antrum upon an Italian woman with a very sunken face, the needle perforated a thin shell of bone which appeared to be the antrum wall. When the irrigating fluid was injected, it ran freely for a while and then did not return through the nose as usual. The pressure upon the syringe was slowly increased and still the water did not return from the nose. I had decided that the antral opening must be blocked from the internal side and that the water was retained under pressure within the antrum, when I glanced at the patient's face and found the whole of the right side of the orbital region, both eyelids, supraorbital, infraorbital, and malar regions markedly bulged and swollen, and the lids œdematous and entirely closed. The water from the trocar had evidently not reached the antrum, but had been injected directly into the tissue of the cheek.

The patient was put to bed, ice cloths applied, and no reaction occurred. Within forty-eight hours the water had been absorbed, the contour of the face was again normal, and no inflammatory action was present.

In explaining this unusual accident, it is necessary to assume that the needle was not pushed through the nasal wall in the proper place or that the antrum was very small or entirely absent. In this case I consider it very forunate that no attempt had been made to perforate the middle meatus, for in such case the orbit would certainly have been perforated, and the tissues of the orbit injected instead of those of the cheek.

This accident is described not because of its importance, but to show that it is possible for an accident to occur with the perforator.

40 EAST FORTY-FIRST STREET.

The Graduate Nurses' Association of the State of Pennsylvania held their second annual convention in the College of Physicians at Philadelphia, October 26th, 27th, and 28th. At the first session an address was made by Mrs. Kirkbride, chairman of the legislative committee of the Civic Club of Philadelphia. Mrs. Kirkbride welcomed the nurses to the city, not only on her own behalf, but as well on behalf of the Civic Club. Letters from other influential women's clubs throughout the country were read by the secretary. Miss Banfield, of the Polyclinic Hospital, Philadelphia, made an address which embodied her paper on registration printed in a recent issue of *American Medicine*. This was followed by an address by Dr. Beatty, chairman of the Examining Board for Physicians of Pennsylvania. A paper was drawn up and read by the legislative committee covering the salient points of the bill, which was not in proper shape for presentation. Ninety-seven members were admitted. The association accepted an invitation from Scranton to hold their next quarterly meeting in that city. The following officers were elected: President, Miss Anna E. Brobson, of Philadelphia; first vice-president, Miss Constance V. Curtis, of Phœnixville, Pa.; second vice-president, Miss Williamina Duncan, of Pittsburgh; secretary, Mrs. Edwin Lewis, of Braddock, Pa.; treasurer, Miss A. M. Shiels, of Mount Airy, Pa. The following chairmen of committees were appointed: Of the Membership Committee, Miss Nellie Cummiskey, of Philadelphia; of the Legislative Committee, Miss Edith Maderia, of Philadelphia; of the Committee on Revision of By-laws, Miss Helen Greaney, of Atlantic City; of the Nominating Committee, Miss Green, of Johnstown, Pa.; of the Press and Publication Committee, Miss Mary J. Weir, of Pittsburgh, Pa.

Our Subscribers' Discussions.

A SERIES OF PRIZE ESSAYS.

Questions for discussion in this department are announced at regular intervals. So far as they have been decided upon, the further questions are as follows:

XXXIV.—How do you treat internal hæmorrhoids without an operation? (Answers due not later than December 1st.)

XXXV.—What is your experience in the therapeutical use of yeast? (Answers due not later than January 16, 1905.)

XXXVI.—How do you treat bunions? (Answers due not later than February 16, 1905.)

Whoever among our subscribers (with the limitations mentioned below) answers one of these questions in the manner most satisfactory to the editor and his advisers will receive a prize of $25. No importance whatever will be attached to literary style, but the award will be based solely on the value of the substance of the answer. It is requested (but NOT REQUIRED*) that the answers be short, if practicable no one answer to contain more than six hundred words.*

Only subscribers to the NEW YORK MEDICAL JOURNAL AND PHILADELPHIA MEDICAL JOURNAL *(including regular and volunteer officers of the Medical Corps of the United States Army, Navy, and Marine Hospital Service, commissioned or under contract) will be entitled to compete, and all persons known to be engaged in medical journalism are disqualified. This prize will not be awarded to any one person more than once within one year. Every answer must be accompanied by the writer's full name and address, both of which we must be at liberty to publish.*

The prize of $25 for the best essay submitted in answer to question XXXIII has been awarded to Dr. W. N. Bispham, of the Army Medical Corps, whose article appeared on page 1031.

PRIZE QUESTION NO. XXXIII.

THE TREATMENT OF VARICOSE VEINS OF THE LEG.

(Conclusion of Dr. Nydegger's Communication.)

In performing either of these operations the Esmarch bandage is put on—at the groin in case of the latter—and is not removed until after the dressings, consisting of gauze and cotton used without stint, have been applied and securely held in place with a bandage, which in case of the Schede modified operation should extend from the foot to the groin. The limb is elevated in bed for a half a day or so following the operation.

The operations described are carried out where practicable in all cases not relieved by palliative treatment, in young, middle aged, and old, and are vastly superior to the method of dissecting out and tying off sections of vessels, being much more quickly performed and leaving behind no parts of dead vessels to furnish a nidus for possible subsequent infection and suppuration.

Phlebitis occurring in connection with varicose veins of the leg is liable to be followed in the course of time by ulceration at the seat of inflammation. In the acute stage the treatment is rest and elevation of the limb and the application of a one half per cent. carbolic acid wet dressing. After the subsidence of the phlebitis the radical operation for the destruction of the varicosity should be considered.

In case of varicose ulcer the radical operation should always be performed at once without delay, as the ulcer will be prevented from healing by the varicosity of the part. Following the operation the ulcer will quickly and permanently heal. Subsequent to the operation an ulcer will require no special attention beyond being kept clean. After a large ulcer has thus been dealt with, skin grafting on the healthy granulating surface will hasten the healing process.

Dr. W. C. Rucker, of the Public Health and Marine Hospital Service, writes:

The principles underlying the treatment of varicose veins of the leg are (*a*) relief of pressure from within the veins, and (*b*) the upbuilding of the general health. The first is to be accomplished by (*a*) palliative or (*b*) radical measures; the second by attention to diet, regulation of the bowels, and the administration of iron, arsenic, and similar tonics.

Palliative measures consist of elevation of the leg and the application of an elastic stocking or bandage for the maintenance of firm, equable pressure on the affected limb to relieve internal pressure from the veins. Two classes of cases may be treated by this method: (*a*) Those in which the patient refuses an operation (they form the larger percentage) and (*b*) those in which for some reason an operation cannot be performed. If the case is not far enough advanced to warrant operation, it usually requires no treatment. If an operation is indicated, any other measure is a makeshift.

In all cases it is best to strike at the root of the matter and ligate the saphenous vein to remove the weight of the blood column from the peripheral vessels, especially when the deep veins are involved. When the superficial veins only are in a varicose condition, multiple incision and ligation should be added to this method.

Varicose ulcers are best treated by elevation of the limb and cleansing and stimulation of the ulcer in addition to the treatment mentioned. The first is to be accomplished by putting the patient to bed with the leg bandaged to a long posterior splint, which is fastened to a box tied in the bed. It is thus impossible for the patient to lower the limb. Elevation, to be effective, must be continuous. To clean and stimulate the ulcer, the patient should be etherized and the wound thoroughly and vigorously scrubbed with a stiff brush and a mixture of chloride of lime, acetic acid, and water. The wound is to be dressed with sterile strips of oiled silk and sterile gauze, and a bandage snugly applied from the toes to above the knee. As soon as granulation is well established, the wound should be skin grafted. If the ulcer is excavated, it should not be grafted until the granulations have reached the level of the surrounding skin. This simple method is far more rapid and certain than the use of the various antiseptic dusting powders, ointments, and pastes. In wounds of low vitality antiseptics tend to destroy granulations. After the wound is clean (one thorough scrubbing will usually make it so) all that is needed is simple sterile protective dressings.

Dr. H. S. Mathewson, of the Public Health and Marine Hospital Service, writes:

The treatment of varicose veins of the leg should invariably be operative, except in the aged or in those refusing operation. Of palliative measures, confinement to bed for a month, together with the hypodermic use of ergot, offers the surest relief. By this procedure the tone of the dilated vessels is in a measure restored, and, if it is followed by proper support of the veins when the patient resumes his ordinary course of life, a relative cure for a long period of time is often obtained. For the mechanical support of the dilated veins the ordinary elastic stocking is to be mentioned only to be condemned. It is always too hot and generally too tight. A gauze or muslin bandage, to be worn through the day and removed at night, should be snugly applied to the leg, and over this a canvas guard should be worn by those exposed to frequent contusions of the legs.

The operative treatment of this condition, to be successful, should be radical. The patient should be prepared for the operation by rest in bed for a few days, especially when phlebitis is present or a large and foul varicose ulcer extends to a point near the site of operation. Hot lead and opium dressings serve to rapidly reduce the inflammatory condition, if present, after which the leg should receive the ordinary aseptic preparation given in all operative cases. The writer prefers the use of an Esmarch bandage to render the part bloodless, and invariably employs a general anæsthetic.

In cases of varicosities below the knee the circular operation of Schede is the best. An incision is carried entirely around the leg, one inch below the tubercle of the tibia, dividing the skin and subcutaneous tissue down to the deep fascia covering the muscles. All veins met with are doubly ligated and from an inch to an inch and a half of each vein is excised between the ligatures. The wound is closed as usual, but two tension sutures of silver wire, anchored to small lead discs, should be placed on the outer side and three on the inner side of the leg, as there is considerable tendency for the skin sutures to cut out before union has taken place, owing to the drag on the incision by muscular action.

Multiple ligation of the internal saphenous vein below the knee is a waste of time, as this vein is no more at fault than several others in its near neighborhood, which, owing to their singular distribution, are difficult to find, except in the course of a circular incision above the knee joint. If the internal saphenous vein is pendulous and sacculated or occupied by phleboliths and greatly dilated, it should be removed in toto by a linear incision up to the level of the saphenous opening. In cases where the vein is moderately dilated multiple ligation serves to obliterate it.

The writer urges an early and radical operation in these cases, as this offers a permanent cure. The physician is seldom consulted until a varicose ulcer of several months' standing is present. This recent ulceration is usually small and situated upon an area of tissue which has not widely departed from the normal. Operative obliteration of the predisposing cause of the ulcer, namely, the varix, allows the ulcer to heal rapidly and its site to return to the normal. The healing of the ulcer without removal of its cause simply invites its early recurrence.

◆

Therapeutical Notes

The Treatment of Gout.—Robin, in *Nouveaux remèdes*, for November 8, 1904, states that colchicum is indicated principally in acute attacks of gout while sodium salicylate is valuable in subacute crises. He uses:

℞ Sodium salicylate	2 to 4 grammes (30 to 60 grains);
Syrup of orange flowers	30 grammes (1 ounce);
Infusion of lime tree flowers	120 grammes (4 ounces).

M. A tablespoonful every hour.

Should an acute attack supervene, Robin gives:

℞ Extract of belladonna. Powdered leaves of belladonna	of each.....1 centigramme ($^{3}/_{20}$ grain).

M. For one pill at bedtime.

He also adds lithium benzoate in 7½ grain doses to the first prescription and pushes the salicylate to tolerance. If there is no relief in 36 hours, he gives 7½ grains of quinine sulphate for several days, morning and evening.

Tomatoes as a Food.—Belbèze is cited in *Médecine moderne*, for October 23, 1904, as objecting to the conclusions of Paradis in a recent number of *Lyon médical* that unripe tomatoes were poisonous. When the unripe tomato is cooked in soup or otherwise, Belbèze maintains that the effects are only beneficial, as its enormous consumption among the French peasantry without accident proves.

Treatment of Tinea Tonsurans.—Professor Gaucher, according to *Medical Press and Circular*, for October 19, 1904, recommends:

Children.—Cut the hair as close as possible once a week. Every two days wash the head with soap and warm water. Morning and evening, massage the scalp, triturating the diseased spots energetically. After the massage, prolonged friction by means of a tooth brush with the following liniment:

℞ Spirits of camphor	4 ounces;
Castor oil	1 drachm;
Tincture of cantharides	1 drachm.

M. For a liniment.

Adults.—Not necessary to cut the hair, which offers the advantage of masking the spots. The head will be washed once a week with tar soap. Repeated and frequent massage will be done by the patient or some one else in the family. Every evening friction with:

℞ Eau de cologne	1½ ounce;
Spirits of lavender	1½ ounce;
Tincture of capsicum	1 drachm.

M. Hair wash.

The following ointment might be substituted for the above liquid preparations:

℞ Peruvian balsam	20 grains;
Salicylic acid	20 grains;
Resorcin	20 grains;
Lanolin Petrolatum	of each 1½ ounce.

M. For an ointment.

At the same time the patient will be recommended to rub the head every morning with the following slightly stimulant mixture:

℞ Essence of turpentine	½ ounce;
Spirits of camphor	3 ounces;
Liquid ammonia	1 drachm.

M. Lotion.

Or, in the case of a woman:

℞ Corrosive sublimate	4 grains;
Glacial acetic acid	20 minims;
Resorcin	½ drachm;
Chloral Tincture of cantharides Tincture of jaborandi	of each 1 drachm;
Alcohol	7 ounces;
Castor oil	1 ounce;
Essence of violets	a sufficient quantity.

M. For a lotion.

Artificial Sea Bath.—*Lyon médical*, for October 16, 1904, gives the following formula for an artificial sea bath:

℞ Sea salt	8.00 parts;
Sodium sulphate	3.50 parts;
Calcium chloride	.70 parts;
Magnesium chloride	3.00 parts;
Water	300.00 parts.

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WHY TOO MUCH?

Those of our readers who are interested in the well being of the public medical services will recall that last March we reviewed a bill sent to Congress by the Secretary of War to increase the efficiency of the Army Medical Service, and gave an epitome of the reasons of the surgeon general demonstrating the necessity for its passage.

This bill is still on the calendar and is expected to receive consideration by the Military Committee of the House early in the coming session. It is somewhat discouraging to see in the daily papers a report of an interview in which Mr. Hull, the chairman of that committee, states with reference to this bill that " the docors are asking too much." " They all want to be officers of high rank," he continues, " and they think the flow of promotion too slow for them." It seems clear that these remarks do not refer to the proposed numerical increase of 130, since the fact that now in time of peace nearly 200 contract surgeons have to be employed is a measure of the extent to which the Medical Corps is undermanned. It is evidently the number of officers in the higher grades, with rank of colonel and lieutenant colonel, that Mr. Hull deems excessive. Let us see what are these unreasonable demands which, as Mr. Hull tells us, are being urged by doctors all over the United States.

The bill asks for substantially the same proportion in these grades which the Medical Corps of the Navy now has, and which the Medical Corps of the Army formerly had, and of which they were deprived in 1901. Is this proportion greater than that enjoyed by other staff corps? Not at all. The proportion of colonels and lieutenant colonels to the whole number of officers provided by this bill is 8.9 per cent. In the Engineers it is 13.1 per cent.; in the Pay Corps, 13.2 per cent.; in the Quartermaster's Department, 15.6 per cent.; in the Commissary Department, 16 per cent. The young medical officer, before he can enter the service with the rank of first lieutenant, must spend five years of time and a number of thousands of dollars on his professional education, and must pass a severe examination. The young paymaster or quartermaster or commissary has no such heavy expense, yet he enters his corps with the rank of captain.

Really, like Warren Hastings, we should be amazed at the contemplation of our own moderation. Far from being excessive, the surgeon general has demonstrated that he has asked for the least which is necessary in order to be able to attract satisfactory candidates. The standard in all the public medical services is high, and in the interest of the medical profession, as well as of the government, it is important that it be kept so. But the supply of available applicants is not in excess of the demand, and it is evidently idle to enlarge the Medical Corps of the Army without offering sufficient inducements to enable the vacancies to be filled.

It is a common observation that people are less willing to pay doctors' fees than those of lawyers or other professional men. Can it be that the same spirit prevails in Congress and that the chairman of the Military Committee thinks it unreasonable that medical officers should receive emoluments at all comparable with those of other staff officers?

THE MEDICAL DEPARTMENT OF THE NAVY.

Surgeon General Rixey's report for the year ending June 30, 1904, dated October 1st, has just been issued. As no naval demonstrations were called for during the year, the report deals wholly with the probable needs of the navy from the medical point of view in the near future. In estimating these needs the possibility of war has to be taken into account in advance of any urgent necessity of provision for sick and wounded on a large scale. In consequence of the establishment of an extensive plant at Charleston, S. C., not only projected, but now in actual course of provision, the need of a naval hospital at that point is properly urged by the surgeon general, who points out also the expediency of providing hospitals at Guantanamo, in Cuba, and at Olongapo, in the Philippine Islands. As regards the locality last named, however, the completion of the hospital at Canacao, with supplementary sick quarters at Olongapo, will, he thinks, supply the needed accommodations for a time. But at Guantanamo, he says, the necessity is more urgent.

To fill the medical corps with satisfactory officers is still a problem. It seems that the service has not yet been made sufficiently attractive to draw the desired number of young medical men of the right class into it, though we hope that the old repelling influence exerted by the navy's reputation for ungracious treatment of its medical officers by those of the line has, in great measure at least, passed away. Every effort has been made to fill the vacancies suitably, the board of examiners for admitting assistant surgeons having remained in continuous session during the year, and the president of the Naval Medical School having visited the leading medical schools of the East and of the Middle West and, by invitation, addressed the various bodies of students on the subject of the naval medical service.

"It was thought," says the report, "that the favorable legislation of 1903, giving rank for grade and increasing the number of surgeons and establishing a closer parallelism between the army and navy medical establishments, would so serve to popularize the naval medical service among qualified young professional men as to make recruiting for it an easy matter." But the result has been disappointing. As partially explanatory of this state of things, it is noted that the present pay of an assistant surgeon of the navy on shore duty is fifteen per cent. less than that of an assistant surgeon of the army. It appears that for some reason both the Medical Corps of the Army and the Public Health and Marine Hospital Service have long been more attractive than the Medical Corps of the Navy to young graduates in medicine, though there has always been difficulty in securing qualified medical men for the navy. It is certainly to be hoped that before long Congress will remedy the comparative unattractiveness of the medical service of the navy. We must have the corps filled, and with the best men.

LUMBRICI AS A CAUSE OF INTUSSUSCEPTION.

Rarely indeed do ordinary intestinal worms give rise to any grave condition, but several observers attribute to them the occasional occurrence of intussusception. A case in which lumbrici are supposed by M. Antonin Porot, of Lyons, to have acted as the cause of this accident is recorded by him in the September number of the *Revue pratique d'obstétrique et de gynécologie.*

The patient was a child two years and a half old. It became ill rather suddenly, being seized, according to its parents, with paroxysms of acute abdominal pain. These were repeated several times a day, and the child was constipated, but it did not vomit. On the sixth day it was brought to the hospital. It was then feverish, with a temperature above 102° F. There was a little meteorism, but the abdominal wall was soft, and there was no tumor or any tenderness at the appendicular point. Even then there were chest symptoms—dyspnœa and some dulness over the base of the right lung—that proved subsequently to mark the beginning of a pneumonia that cannot altogether be excluded as a cause of the fatal issue that finally took place, though in the title of his article M. Porot designates ascarides as the cause of fatal intestinal occlusion and invagination.

In seven days after its reception into the hospital, thirteen from the onset of its illness, the child died. Several attempts had been made to move the bowels, but only one of them resulted in an evacuation, and that was a small one. At the post mortem examination twenty-six lumbrici were found in the small intestine, some single or in groups of two or three, and the others forming tangled masses. It was these masses of worms that were thought to have given rise to intestinal occlusion resulting in exaggerated peristaltic action sufficient to cause the intussusception, which had not occasioned any tumor discoverable during life, had not been palpable on rectal examination, and had been accompanied by neither vomiting nor a discharge of blood.

The invagination, which was situated about thirteen inches from the pylorus, yielded to rather firm traction. The intussusceptum was about an inch and a half in length. There were no adhesions or any other signs of peritoneal involvement. At the site of the invagination there were two large ecchymotic spots on the intestinal mucous membrane, but they were rather superficial. The presence of a knot of three large worms just below that point was held to be clearly connected with the occurrence of the intussusception. It was thought that a brisk cathartic, if given early in the illness, might have saved the child's life, also that surgical intervention might have proved effective, but the performance of laparotomy had been omitted because of the serious nature of the pulmonary trouble.

HOSPITAL MUSEUMS.

While we pride ourselves on the many advances in medical teaching and research made in this country, there is one particular in which as a whole we are behind. That is in our museums. A good hospital museum is rather an exception in this country. The medical visitor who goes about London cannot fail to be impressed by the museums attached to the hospitals. The first feeling is of their interest, but with that comes the realization that they are meant to be used. The rooms are usually well lighted, and the specimens are easily accessible and well catalogued. The catalogues are everywhere convenient and give some notes of the history of the majority of the specimens. This adds immensely to their teaching value. What is more important is that the museums are used. It is rare to go into a London museum and not find students at work. At the ward rounds there are frequent references to specimens in the museum, and the students are encouraged to study them in connection with their clinical work. The value of this is very evident, and it gives the student the association of anatomical conditions with the physical signs of disease. The museum is part of the equipment of the school.

It would seem worth while to make the attempt to develop the museums in this country. In some places this would mean the beginning of a museum, in others the development of a museum already there. Consider the amount of material which might be collected in ten years in any large hospital. The material from the surgical clinics is as important as that from the dead house. And the endeavor to develop the museums should not be limited to the teaching hospitals, although in them it is susceptible of the greatest development. Would it not be a stimulus to the profession anywhere to have even a small collection? Such things grow even if the increase is small. Many country practitioners would be glad to send interesting specimens to the hospital in the nearest city if they knew that such would be preserved and the notes carefully kept. The advantage to be gained by the frequent examination of pathological specimens is appreciated only after trial. For some of us a visit to London means hours spent in the Hunteriam Museum of the College of Surgeons. Such a museum is perhaps beyond imitation, but a beginning of it had to be made.

What are the essentials for the proper development of a museum? Given the material, perhaps the next requisite is enthusiasm. This generally means youth and the spirit and desire to do these things. It takes time, but probably there are many young practitioners who for a small salary would welcome the chance to take a museum and set it in order or guide the development of a new one. The outlay for jars, fluids, etc., need not be large. Those who have read the life of Sir James Paget will remember that for seven years he spent from nine o'clock until four in the museum of St. Bartholomew's Hospital on five days in the week. In the following seven years, he states, he worked nearly every day in the Hunterian Museum. Of this work he says: "It made me a thorough student of changes from disease."

A very essential thing for the usefulness of a museum is a record of the history of the specimens which can be easily consulted. This need not be long and yet can give the leading points. For teaching purposes—and that is the most important function of a museum—the combination of the specimen and the record is most necessary.

Thomas McCrae.

TWO NOTABLE DEATHS.

Two deaths of eminent men among our European colleagues have recently been reported. One is that of Mr. Herbert W. Allingham, the distinguished London surgeon, who is said to have committed suicide in consequence of grief for the death of his wife. It was in Marseilles, on his return from a visit to Egypt, that Mr. Allingham died. The other death is that of Professor Karl Weigert, the well known pathologist, whose use of staining agents in histology and bacteriology is familiar to the profession all over the world.

THAPSIA GARGANICA.

A French physician practising in Algiers, M. Roux (*Echo médical des Cévennes; Revue française de médecine et de chirurgie*, November 21st), recounts his experience with a malingerer, a native who, having been worsted in a fisticuff encounter, called upon M. Roux to observe his pitiable plight, that he might be able to testify for him. His person was enormously swollen, as if from œdema, and the doctor's first thought was that his kidneys had been injured. But on further examination it was found that the swollen parts crepitated, and M. Roux was perplexed. But another native asserted that the swelling was due to the use of some plant of which he did not know the French name. M. Roux thought of *Thapsia garganica*, and he declares that, experimenting on himself with the juice of that plant, he found that it produced appearances identical with what he had seen on the malingerer. The juice of *Thapsia garganica* is reputed to be vesicant, but we are somewhat skeptical as to its power to cause emphysema.

FILMARONE.

This name has been given by Kraft (*Therapeutische Monatshefte*, 1904, No. 8; *Berliner klinische Wochenschrift*, October 3rd) to an amorphous acid isolated by him from the male fern. It seems to be the most energetic of the anthelmintic principles found in the plant. As a general thing, a single dose of ten grains is all that is required. Only slight depression and colicky pains are produced by it. Its uniformity and stability, it is pointed out, make it superior to the extract.

HOSPITAL MUSEUMS.

Such a plea as is put forward by Dr. McCrae in this issue of the *Journal* was certainly much needed. A few years ago the New York Hospital had an excellent museum, the growth of a long period of time, but that and its valuable library were dispensed with by the governors—for no good reason, so far as the medical profession can appreciate.

News Items.

Society Meetings for the Coming Week:

MONDAY, *December 5th.*—New York Academy of Medicine (Section in Biology); German Medical Society of the City of New York; Morrisania Medical Society, New York (private); Brooklyn Anatomical and Surgical Society (private); Corning, N. Y., Academy of Medicine; Utica, N. Y., Medical Library Association; Boston Society for Medical Observation; St. Albans, Vt., Medical Association; Providence, R. I., Medical Association; Hartford, Conn., Medical Society; South Pittsburgh, Pa., Medical Society; Chicago Medical Society.

TUESDAY, *December 6th.*—New York Neurological Society; Buffalo Academy of Medicine (Section in Surgery); Elmira, N. Y., Academy of Medicine; Ogdensburgh, N. Y., Medical Association; Syracuse, N. Y., Academy of Medicine; Hudson, N. J., County Medical Society (Jersey City); Androscoggin, Me., County Medical Association (Lewiston); Baltimore Academy of Medicine; Medical Society of the University of Maryland (Baltimore).

WEDNESDAY, *December 7th.*—New York Academy of Medicine (Section in Public Health); Society of Alumni of Bellevue Hospital; Harlem Medical Association of the City of New York; New York Genitourinary Society; Medical Microscopical Society of Brooklyn; Medical Society of the County of Richmond, N. Y. (New Brighton); Penobscot, Me., County Medical Society (Bangor); Bridgeport, Conn., Medical Association.

THURSDAY, *December 8th.*—New York Academy of Medicine (Sections in Pædiatrics and Otology); Society of Medical Jurisprudence and State Medicine, New York; Brooklyn Pathological Society; Medical Society of the County of Cayuga, N. Y. (semi-annual meeting); South Boston, Mass., Medical Club (private); Pathological Society, Philadelphia; Church Hill Medical Society of Richmond, Va.

FRIDAY, *December 9th.*—Yorkville Medical Association, New York (private); Brooklyn Dermatological and Genitourinary Society (private); German Medical Society of Brooklyn; Medical Society of the Town of Saugerties, N. Y.

NEW YORK.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending November 26, 1904:

	November 19.		November 26.	
	Cases.	Deaths.	Cases.	Deaths.
Measles	83	7	98	9
Diphtheria and croup	323	36	376	40
Scarlet fever	174	15	184	9
Smallpox	4	..	3	..
Chickenpox	114	..	136	..
Tuberculosis	275	147	324	166
Typhoid fever	107	18	89	12
Cerebrospinal meningitis	..	13	..	14
	1,080	236	1,210	250

New York Polyclinic.—Dr. B. Sachs has resigned his position as professor of neurology in the New York Polyclinic Medical School.

Eastern Medical Society.—At the annual meeting of this society, to be held at Clinton Hall, December 9th, an address will be delivered by Dr. A. Jacobi.

Professor William H. Welch.—A prominent New York physician has kindly called our attention to the fact that in our last issue we misspelled the name of the well known and much esteemed Professor William H. Welch, of Baltimore, in our item on Professor Osler's successor.

New York Polyclinic Medical School and Hospital.—Emeritus Professor H. Newton Heineman will deliver a lecture at the New York Polyclinic Medical School and Hospital on Monday, December 5th, at 2.30 p. m., through the courtesy of Professor Manges. The subject of this lecture is to be The Nauheim Treatment of Heart Disease.

Arrest of a Man Buncoing Physicians.—Dr. Henry Reiter, of 148 Columbia Street, caused the arrest on November 24th, at Stanton and Columbia Streets, of a very tall man with a brownish beard, clad in a gray checked coat and a gray slouch hat, who has been introducing himself to local practitioners as a German physician in unhappy circumstances and offering to obtain them memberships in certain lodges under advantageous terms. In default of a ten dollar fine, the accused was sent to the island for ten days from Essex Market Court.

Academy of Medicine.—The section on Pædiatrics will meet on Thursday, December 8th, at 8.15 p. m. Order: Presentation of a Case of Remarkable Mental Improvement Following Operation for Depressed Fracture of Skull, by B. V. D. Hedges, M. D., of Plainfield, N. J.; paper, Hypertrophy and Stenosis of the Pylorus in Infants, with Demonstration of Specimens, by F. L. Wachenheim, M. D.; discussion of the paper; election of officers. David Bovaird, Jr., M. D., chairman. Matthias Nicoll, Jr., M. D., secretary, 124 East Sixtieth Street.

Fourth Pan-American Medical Congress, Panama, January 2nd to 6th.—Dr. Rudolph Matas, of New Orleans, secretary of section on general surgery for the United States, informs us that an arrangement with the United Fruit Company has been perfected by which a steamer of this line will leave New Orleans for Colon on Wednesday, December 28, 1904, at 10 a. m. (instead of Friday, December 30th, at 11 a. m., as previously announced), which will reach Colon (Panama) on Monday, January 2, 1905, the opening day of the congress. In view of the facilities offered to reach Panama via New Orleans it is expected that many will choose this route and those who intend to do so will please forward their names to Dr. R. Matas, secretary of section of general surgery, 2255 St. Charles Avenue, New Orleans, La., not later than December 22, 1904.

The Genitourinary Section of the Eastern Medical Society will meet on Tuesday, December 6th, at Clinton Hall, 151 and 153 Clinton Street, at 8.30 p. m. sharp. Programme: Five Minute Papers on Syphilis, as Observed in General Practice: Syphilis of the Nose and Throat, by I. Grushlaw, M. D.; Syphilis of the Eye, by A. A. Himowich, M. D.; Syphilis in Obstetrics and Gynæcology, by E. K. Browd, M. D.; Syphilis of the Nervous System, by Emil Altman, M. D.; Syphilis of the Viscera, by L. F. W. Haas, M. D.; Syphilis in Surgery, by Charles Goodman, M. D.; Syphilis in Pædiatrics, by A. Hymanson, M. D.; Pathology and Diagnosis of Syphilis, by Ludwig Weiss, M. D.; Treatment of Syphilis, by Daniel A. Sinclair, M. D. Discussion by Dr. S. Lustgarten, Dr. Charles Warrenne Allen, Dr. Samuel W. Brickner, and Dr. B. Lapowski. The profession is invited. Abraham L. Wolbarst, M. D., chairman.

PHILADELPHIA.

Change of Address.—Dr. Walter G. Elmer, to 1801 Pine Street.

Personal.—Dr. Charles H. Frazier has been elected visiting surgeon to the Episcopal Hospital.

Death.—Dr. William McClellan Reber died at Wilkes-Barre on November 8th. Dr. Reber was 61 years of age; he was a member of the American Medical Association, of the Medical Society of the State of Pennsylvania, and of the Luzerne County Medical Society.

Marriages.—Dr. Benjamin Dores Parrish and Miss Helen Griffith were married in St. James's Episcopal Church on November 16th. Dr. and Mrs. Parrish will live at 29 South Nineteenth Street.

Dr. Charles F. Chandler and Miss Amelia Konrad were married on the 24th instant. Dr. Chandler graduated from the Medico-Chirurgical College in 1891.

The Health of the City.—The following contagious diseases have been reported for the week ending November 19th:

	Cases.	Deaths.
Typhoid fever	61	8
Scarlet fever	67	1
Smallpox	2	0
Chickenpox	92	0
Diphtheria	119	9
Cerebrospinal meningitis	1	0
Measles	14	0
Whooping cough	7	0
Tuberculosis of the lungs	57	55
Pneumonia	56	44
Erysipelas	3	1
Puerperal fever	2	2
Trachoma	1	0

The total death rate for the week was 401 in an estimated population of 1,408.154; corresponding to an annual death rate of 14.81 per 1,000.

There have been the following deaths from other infectious diseases: Tuberculosis, other than tuberculosis of the lungs, 6; diarrhœa and enteritis, under two years, 7.

The total infant mortality was 72; 59 under one year and 13 between one and two years. There were 38 still births; 24 males and 14 females.

On Sunday, November 13th, snow began to fall shortly after noon; by 8 p. m. the wind had attained a velocity of 37 miles per hour, and there was a fall of snow and sleet which during the passage of the storm amounted to 2.08 inch. Considerable damage was done by the wind, and one life was lost. The temperatures have been seasonable.

There is an increase of 42 cases of diphtheria over the number reported for the week ending November 12th.

The officials of the bureau of health account for the apparent increase in the number of cases of diphtheria by more accurate reporting rather than by an actual increase in the number of cases of the disease.

The Pathological Society of Philadelphia.—Dr. Victor C. Vaughan, of the University of Michigan, will address the Philadelphia Pathological Society on December 8th, at the College of Physicians, on the Relation of Food Adulteration to the Public Health. A reception will be tendered to Dr. Vaughan immediately after the meeting.

Scientific Society Meetings for the Week Ending December 10th.—Monday, December 5th, Philadelphia Academy of Surgery; Biological and Microscopical Section, Academy of Natural Sciences; Society of Normal and Pathological Physiology, University of Pennsylvania. Tuesday, December 6th, Academy of Natural Sciences. Wednesday, December 7th, College of Physicians. Thursday, December 8th, North Branch, Philadelphia County Medical Society; Pathological Society. Friday, December 9th, Northern Medical Association.

Pure Food Act Constitutional.—F. J. and Nick Kebort were convicted of selling adulterated blackberry brandy, in Crawford county, some months ago; but judgment was suspended, because the court decided the act to be unconstitutional, as the title of the act did not give notice that intoxicating liquors are included among its provisions. On the 21st instant, a decision was handed down by Judge Orlady, sustaining the constitutionality of that section of the act relating to adulterated liquors. The State Dairy and Food Commission will now proceed with the prosecution of persons selling adulterated beers, wines, and liquors.

Thanksgiving Day at Various Hospitals.—Thanksgiving entertainments were given at nearly all the hospitals to such of the patients as were not too ill to be harmed thereby. At the University Hospital the children were given a special dinner through the generosity of Mr. Alfred I. du Pont, who is a patient in the hospital. Turkey dinners were supplied to about 200 other patients. The thoughtfulness of charitable people provided for the patients in the Mary J. Drexel Home, St. Joseph's Hospital, Samaritan Hospital, German Hospital, Medico-Chirurgical Hospital, Gynecean Hospital, Orthopædic Hospital, Jefferson Medical College Hospital, Episcopal Hospital, St. Christopher's Hospital, Philadelphia General Hospital, Friends Asylum, as well as in many other institutions.

Hospital Superintendent Before the Coroner.—A colored baby, nine months old, died in the Polyclinic Hospital on November 23rd. The father of the child, being too poor to bury it, signed a release for the body and gave it to the hospital, it is understood, for dissecting purposes. Later it was found that the body could not be used for anatomical material, and the superintendent, Miss Maud Banfield, ordered it to be burned in the crematory at the hospital. The coroner summoned Miss Banfield to appear before him and show reason why a fine of $50, provided by law for such an offense, should not be paid. The coroner spoke of the affair as a serious offense, while Miss Banfield fails to appreciate the serious aspect of the incident, and asserts that she thought she was ordering within her rights in the matter.

Medical Society of the Southern Dispensary.—The Medical Society of the Southern Dispensary was organized October 21, 1904. Membership is limited to the staff, past and present, of the dispensary. Meetings are held on the first Thursday of each month in the dispensary building, 318 Bainbridge Street. The following are the officers: President, Dr. T. Turner Thomas; secretary, Dr. F. A. Murphy; treasurer, Dr. Thomas J. Byrne. The following are the members of the society:

Dr. S. Weir Mitchell, Dr. W. Joseph Hearn, Dr. William M. L. Coplin, Dr. Hart B. Baxter, Dr. Napoleon Hickman, Dr. E. Tilson Ward, Dr. E. V. Clark, Dr. C. P. Clark, Dr. Edward Horgan, Dr. E. G. Thoston, Dr. Maurice A. Neufeld, Dr. W. Atlee Hickman, Dr. Charles J. Cavanaugh, Dr. Thomas J. Byrne, Dr. George B. Angle, Dr. Otto E. Koch, Dr. Charles L. Leonard, Dr. Charles L. Earhart, Dr. T. Turner Thomas, Dr. Robert MacMillan, Dr. F. A. Murphy, Dr. F. K. Brown, Dr. H. C. Hellner, Dr. Wilson Bowers, Dr. W. H. King, Dr. Archibald Landiss, Dr. Henry Golden, Dr. W. L. Wenck, Dr. W. G. Hillebrand, Dr. William Nichols, Dr. W. N. Leary, Dr. A. A. Sargent, Dr. F. A. Bowman, Dr. Joseph Neff, Dr. George A. Ulrich, Dr. David Bevan, Dr. F. A. Ferris, Dr. L. E. Daubel, Dr. J. F. Wallis, Dr. W. N. Bradley, Dr. A. F. Fayette, Dr. L. N. Gartman, Dr. A. R. Warner, Dr. H. L. Bernardy, Dr. R. Max Goepp, Dr. J. J. McLaughlin, Dr. Thomas W. Tait, Dr. F. J. Kelly, Dr. George H. West, Dr. A. G. Sprissler, Dr. Howard F. Pyfer, Dr. L. F. Appleman, Dr. L. W. Farr, Dr. Otto P. Boryer, Dr. J. C. Boyer, Dr. William M. Sweet, Dr. Myer Rosen, Dr. Barton Cooke Hirst, Dr. Charles E. Ruffel, Dr. J. P. Mulrennan, Dr. S. M. Wilson, Dr. James Wilton, and Dr. M. Barbour.

GENERAL

Dr. C. V. Everitt, of Jersey City, has joined the medical staff of the Fidelity and Casualty Company of New York, and is devoting most of his time to its affairs.

Result of the Recent New Jersey State Examination.—Over one fourth of the candidates who appeared before the New Jersey State Board of Medical Examiners at the last examination failed to qualify.

The New Jersey Sanitary Association will hold its thirteenth annual meeting at Laurel-in-the-Pines, Lakewood, December 9th and 10th. Two of the principal speakers will be Dr. Gordon K. Dickinson and Dr. George E. McLaughlin, health commissioners of Jersey City.

Pan-American Medical Congress, 1905.—Physicians desiring to contribute papers upon Internal Medicine at the next meeting of the Pan-American Medical Congress, which meets at Panama, January 2 to 6, 1905, will kindly send titles at their earliest convenience to the secretary of the section on medicine, Dr. Judson Daland, 317 South Eighteenth Street, Philadelphia, Pa.

The New Officers of the National Epilepsy Association.—At the fourth annual meeting of the National Association for the Study of Epilepsy, held in Boston, November 22nd, the following officers were elected for the coming year: President, Dr. W. P. Spratling, of Sonyea, N. Y.; first vice-president, the Honorable W. P. Letchworth, LL. D., of Portage, N. Y.; second vice-president, Dr. Max Mailhouse, of New Haven, Conn.; secretary and treasurer, Dr. Everett Flood, of Palmer, Mass.; chairman of the executive committee, Dr. William N. Bullard, of Boston. The next meeting will be held in New York in November, 1905.

The Medical Society Alumni of St. Louis.—At the last regular meeting of the Medical Society of City Hospital Alumni, of St. Louis, Dr. Simon Baruch, of New York, read an excellent and exhaustive paper on Fallacies, Aims, and Methods of Hydrotherapy in Fevers. The discussion which followed lasted for three hours or more, and was participated in by the leading members of the profession in St. Louis in both its medical and surgical branches. The society ajourned, as is its custom, to McTague's, where the members were given an opportunity to become better acquainted with their distinguished guest around the festive board.

The "Optical Society" of the State of New York.—We gladly publish the following open letter:

To the Medical Profession of the State of New York:

During the legislative session of 1904, a society of opticians, known as the Optical Society of the State of New York, petitioned the legislature to enact a law creating a State board of examiners in optometry. Before this board would appear all persons who desired to practise optometry, which practice was defined in the act to be enacted as "the employment of any means other than the use of drugs for the measurement of the powers of vision and the adaptation of lenses for the aid thereof." The Medical Society of the State of New York opposed this bill, and with the aid of other organizations, especially the county medical societies and the Optical League (an organization of opticians doing a legitimate business), secured its defeat.

Since the last election, this optical society has been forwarding to physicians in all parts of the State, as well as to the members elect of the next legislature, a document giving reasons why a law of this kind should be enacted, and asking their endorsement.

At the time of the hearing on the optometry bill before the legislative committees of last year, the opticians presented a long list of names of physicians who had endorsed their efforts. The undersigned communicated with every name on the list, and learned that where reputable physicians had endorsed the measure it was through a misapprehension of the real purpose of the bill; and when its true character was pointed out to them they not only withdrew their endorsements, but in many cases wrote vigorous letters in opposition to it. Many of the names were fictitious, the communications addressed to the addresses given being returned as not found. A large number were the names of irregular practitioners, such as osteopaths, spiritualists, etc. There is no doubt that the object of the opticians in presenting the present arguments is to obtain the endorsement of physicians, so that at the next legislative session these signatures can be used to offset the opposition which will be presented by the regularly organized medical bodies of the State. I therefore address the profession of the State, urging its members not only to refuse to endorse this and similar measures, but to make an effort to present to their representatives, both in the assembly and the senate, the true merits of the case, and urge their opposition to it.

The arguments presented by the opticians are very misleading. Their claim, of course, is that they desire to protect the community from incompetent people, but the fact is (as every well informed physician must know) that they are all incompetent. They seek to create a separate profession. This they deny, but in their remarks before the legislative committees they continually used the expression "our profession." They seek the legal right not only to apply lenses for the correction of defective vision which may or may not be due to errors of refraction, but they also seek to treat headaches, dizziness, and the various reflex phenomena which may be due to affections of the eye itself or to affections of organs remote from the eye. They pose as being competent to make a diagnosis. To prepare physicians to do this work the law requires that a four years' course in a medical college shall be taken, after which a medical examination conducted by the State must be passed. Physicians themselves find that after this preparation it is often difficult to be sure of their ground; and, if this is so, there seems to be no good reason why opticians should be allowed to undertake the same work with any less preparation.

It seems unnecessary at this time to go into an extended argument in opposition to this bill. The effort to secure its enactment is not an honest one. Opticians know that they are violating the law in following the occupation which they are now engaged in, and they say that if their bill is enacted it will not give them any more powers than they now possess, while the fact is that the enactment of the bill will give them the legal right to do what they are now doing in violation of the law. They really desire to use the legislature as a tool to put them beyond the grasp of the law; and if this is once clearly brought to the attention of our senators and assemblymen, there is no doubt what the outcome will be. We have met this and similar efforts more than once in the past and there is no doubt that we shall meet many more in years to come; but from our experience we feel justified in making the assertion that if the medical profession presents a united opposition to measures of this kind, they will never be enacted into law in the State of New York. Frank Van Fleet, M. D., chairman of the Committee on Legislation of the Medical Society of the State of New York.

Statement of Mortality in Chicago, Ill., for the Week Ending November 26, 1904, compared with the preceding week and with the corresponding week of 1903. Death rates computed on United States Census Bureau's estimated mid-year populations of 1,932,315 for 1904 and of 1,873,880 for 1903:

	Nov. 26, 1904.	Nov. 19, 1904.	Nov. 28, 1903.
Total deaths, all causes	425	479	512
Annual death rate per 1,000	11.49	12.95	14.24
By sexes—			
Males	236	292	281
Females	189	187	231
By ages—			
Under 1 year	60	84	77
Between 1 and 5 years	37	36	48
Over 60 years	110	105	90
Important causes of death—			
Acute intestinal diseases	23	17	19
Apoplexy	20	13	14
Bright's disease	27	48	38
Bronchitis	13	20	11
Consumption	46	56	50
Cancer	24	23	10
Convulsions	7	9	9
Diphtheria	9	8	19
Heart diseases	50	33	32
Influenza	2	3	1
Measles	2	4	..
Nervous diseases	17	16	32
Pneumonia	59	66	94
Scarlet fever	2	1	9
Suicide	5	9	12
Smallpox	0	2	0
Typhoid fever	8	8	17
Violence (other than suicide)	19	31	38
Whooping cough	2	3	0
All other causes	90	109	107

As reflected by the death rate and by the hospital population the public health of the city continues to be remarkably good. The total deaths reported during the week are 54 fewer than the previous week and 87 fewer than in the corresponding week last year. These figures represent reductions of the annual rates, per 1,000 of population, of 11.2 per cent. and 19.3 per cent., respectively. There is also a substantial reduction from the previous week in the number of pneumonia and typhoid fever patients reported in hospital. On the other hand, there is a continuing increase of minor ailments of the nose, throat, and air passages, due to the prolonged dry weather. During the elapsed 26 days of the month there has been less than a third (0.31) of an inch of rain, instead of the normal 2.25 to which Chicago is entitled in November. Only once during the month, on the 10th, when nearly a quarter of an inch fell, has the dust been laid, and then but for a few hours. The atmosphere has rarely been so vilely polluted as at present and the breathed impurities are the cause of the ailments noted—ailments which are especially rife among mouth breathers. These unfortunates should breathe through a couple of folds of cheesecloth when they go out into such air as exists outdoors at present. But they should learn to breathe through the nose. The nose is not only an air filter, but is also an air warmer. Air drawn through the nostrils is raised to a temperature of about 84 degrees before it reaches the inner air passages, and the bronchial tubes are thus spared the shock of the much colder air taken in by the mouth.

The Fourth Pan-American Medical Congress, which will convene in Panama the first week in January next, bids fair to be a most delightful mid-winter trip. The delegates will leave this country by the Atlantic, Pacific, and Gulf coasts the last week in December. They will return by the same routes, or will make round trips (see appended list of routes). The Public Health Association meeting will take place on the following week in Havana, and those desirous of attending both meetings can arrange to do so. From Havana, the return trip can be made directly north to New York by water; or via Miami or Tampa, Florida; or New Orleans. The connections and dates of sailing are now being arranged. The Panamanian Government has appropriated $25,000 for the scientific session and the entertainment. The congress will be held from January 2nd to 6th. The afternoons will be devoted to the scientific sessions and the mornings and evenings to trips and social functions. So far as can be learned, the programme in Panama will be a reception on the first day, by President Amador of the Panama Republic, and the formal opening session of the congress the same evening. On the second day, an excursion to the canal in the morning, meeting of the various sections in the afternoon, and a banquet in the evening; on the third day, an excursion down the bay to Taboga Island, where a Panama breakfast will be served, scientific sessions in the afternoon, and a ball in the evening. On the fourth day, an excursion to the United States Army barracks in the morning, section meetings in the afternoon, and the formal closing session in the evening. On the fifth day, and on the afternoon of this day, those of the congresistas who intend going to Cuba to attend the meeting of the Public Health Association, will sail, while those who intend returning home by way of New Orleans or New York will remain until the following Tuesday. The programme of the public association will be an inviting one and of an important character. The Cuban committees are making extensive preparations for the entertainment of the congresistas. From the returns now coming in, it would seem that at least one half of the members of the Public Health Association will make the round trip to both medical meetings. It is understood that the Pan-American congresistas who do not belong to the Public Health Association will be invited by this association to take part in their discussions as their guests, and that they will also be invited by the Cuban entertainment committee to participate in the festivities. The secretaries of the sections of the congress for the United States are: Dr. C. W. P. Brock, of Richmond, Va., Railway Surgery; Dr. Henry P. Newman, Gynæcology and Abdominal Surgery; Dr. A. H. Doty, of New York, Hygiene and Quarantine; Dr. Judson Daland, of Philadelphia, Medicine; Dr. R. Matas, of New Orleans, General Surgery; Dr. Bert Ellis, of Los Angeles, Eye; Dr. Hudson Makuen, of Philadelphia, Throat; Dr. Frederick Jack, of Boston, Ear; Dr. C. H. Hughes, of St. Louis, Nervous Diseases; Dr. George Goodfellow, of San Francisco, Military Surgery; Dr. John Ridlon, of Chicago, Orthopædic Surgery; Dr. D. W. Montgomery, of San Francisco, Dermatology; Dr. C. G. Kerley, of New York, Pædiatrics; Dr. Noble P. Barnes, of Washington, Therapeutics; Dr. Walter Chase, of Boston, Pathology; Dr. Howard Morron, of San Francisco, Cal., Dermatology. Communications from physicians in the United States interested in these branches may be sent directly to these different secretaries. Delegates intending to attend the congress, desirous of obtaining information concerning it, should communicate with the secretary of the international executive committee in the United States, with the secretary of their section, or with P. H. L. E. Johnson, chairman of the transportation committee. General Secretary, Ramon Guiteras, M. D., 75 West Fifty-fifth Street, New York.

The routes to the Fourth Pan-American Medical Congress are gradually narrowing down to a select few as more advantageous rates are offered. Those who go only to the Pan-American Medical Congress will probably go and return by the way of New York or New Orleans. From the former starting point one hundred dollars ($100.00) will be charged for the round trip; from the latter fifty dollars ($50.00). By far the greater number, however, will make the round trip to both these meetings, returning to Baltimore via Jamaica on the steamer which the commission is arranging to charter. The Di Giorgio Steamship Line, of Baltimore, Md., offers a special ship for exclusive use of party, including meals and berth, at sea and in ports, to Panama, Havana, and return, attending both meetings and visiting Kingston and Port Antonio, Jamaica, for one hundred and thirty dollars ($130.00), providing fifty persons take passage. The *Athos* will leave Baltimore, December 27th, at 11 a. m., arriving in Panama January 2nd, p. m., or 3rd, a. m.; leave Panama, January 7th, a. m.; arrive in Havana, January 9th, a. m.; leave Havana for Jamaica, January 14th, a. m., and arrive in Baltimore, January 18th. The *Athos* is one of the staunchest of steel ships, with electric lights, running water, wash basins, bath rooms, etc. She has a fine deck surface and a number of deck staterooms, and is guaranteed to be in first class condition. The president of the steamship company will be one of the party on the trip. The members of the party can live on board when in port if they desire, thus saving hotel expenses. Luncheon and dinner will be served on deck when in smooth waters. Physicians can bring members of their families and friends at the same rates. All arrangements must be closed ten days before sailing date. Number of passengers limited to seventy. Application for reservation of staterooms, berths, etc., should be made to Ralph F. Molley, 105 Park Avenue, Baltimore, Md.

Pith of Current Literature.

GAZZETTA DEGLI OSPEDALI E DELLE CLINICHE

October 23, 1904.

1. Contribution to the Study of Renal Calculi, By Nicolino Federici.
2. Fibrosarcoendothelioma of the Neck, By Giovanni Ghedini.
3. Percussion with One Finger, By Ernesto Caccianiga.
4. Dercum's Disease, By Giovanni Migliacci.
5. Morphological Changes in Tubercle Bacilli in Refractory Subjects Immunized and Treated with Specific Antituberculous Remedies, By M. Sciallero.
6. Two Tuberculous Monkeys, By Marzagalli and Figari.
7. Serum Therapy in the Treatment of Glandular Tuberculous Affections, By Giuseppe Riggi.

1. **Spontaneous Cure in a Case of Stone of the Kidney.**—Federici relates the following interesting case: After a severe exertion the patient was taken with a series of symptoms which very closely resembled the clinical picture of appendicitis. Although the pain and tenderness was at first localized in the region of the appendix, it soon made itself felt posteriorly and an acute suppurative perinephritis was made out. An incision was made, a quantity of pus evacuated from the abscess, and good drainage provided for. In the course of a few days, a stone was discharged through this wound, after an attack of pain and a slight hæmorrhage. This stone, it was found, had been situated superficially in the cortex of the kidney, almost under the capsule, and had burst through the capsule under the influence of the exertion. The operation provided a means for its exit. The case shows that the presence of a renal stone may give rise to a perirenal abscess. Pain at McBurney's point, which was at first a prominent symptom in this case, is evidently not a characteristic sign of appendicitis.

2. **Complex Tumor of the Neck.**—Ghedini describes a case in a young man aged sixteen years, who presented a tumor of the size of a small orange over the sternocleidomastoid. The tumor had grown with considerable rapidity until it had reached the size mentioned. When it was removed, the microscopical examination showed that it was unusually complex in structure. It consisted largely of adult fibrous tissue, but, in addition, there were groups of sarcomatous cells and groups of endothelial cells. The diagnosis was therefore fibrosarcoendothelioma. The author remarks that the cells of each of these elements of the tumor in question were derived from structures in its neighborhood, the endothelial cells being probably derived from the lining of adjoining arteries.

3. **Percussion With One Finger.**—Caccianiga pleads for the more extensive use of immediate percussion, with one finger, instead of the mediate, with one finger percussing upon another, as is commonly done. He found that the immediate method enabled him to obtain the limits of a dull body within the thorax with greater precision than the mediate method, and that the former manner of percussing often gave accurate information where the latter failed. This was especially the case in percussing the heart. The author employs a single finger, tapping very gently, directly over the organ to be examined. In his method of percussion the movement is not executed, as in the old methods, by the examiner's wrist, but the wrist remains perfectly quiet while the motion is made in the metacarpophalangeal joints. By this method the author was able, for example, in a case of pneumonia to detect the slight dulness which developed over a certain area of the lung, where the old method had given a clear pulmonary resonance.

4. **Dercum's Disease.**—Migliacci concludes from a study of this affection that in the present state of our knowledge we must suppose that Dercum's disease is due to a diminished activity of the thyreoid gland, a structure which, though small in size, is one of the most important organs of the body from the functional viewpoint. In the case of adiposis dolorosa which he reports the thyreoid treatment was followed by excellent results.

5. **Changes in Tubercle Bacilli Found in Immunized Animals.** — Sciallero, of Maragliano's laboratory, immunized animals with tuberculin and observed the morphological changes which took place in tubercle bacilli that had been inoculated to the same subjects of experiment. He found that the bacillus assumed in these animals a number of aberrant and degenerate morphological types. Some of these were thinner and some were shorter than the typical bacillus of tuberculosis, others did not take the fuchsin stain readily or evenly, etc. When the same bacilli were injected into non-immunized animals, they showed but few altered forms. The author thinks that the appearance of the morphologically distorted or degenerated forms of tubercle bacilli in predominant numbers in the sputum of patients with tuberculosis should be regarded as a favorable sign.

6. **Tuberculosis in a Monkey Cured With Maragliano's Serum.**—Marzagalli and Figari relate the history of a monkey which was infected with tuberculosis by inhalation, in a natural manner, and which was completely cured by the use of Maragliano's serum, as was demonstrated at the necropsy. The results in this case are especially interesting because this simian belonged to the anthropomorphous type and because the experiment in this monkey was exactly parallel to similar tests made in man.

7. **Serum Therapy for Tuberculous Glands.**—Ricci reports the case of a boy, aged twelve years, who was suffering from tuberculous glands in the neck, and was successfully treated by means of antituberculous serum. The antibacillary serum which was employed in this case was obtained from animals that had been previously immunized by the injection of aqueous extracts of living tubercle bacilli. Injections of the serum were given, and locally compresses saturated with the serum were also applied to the glandular swelling. A sinus which was present healed, and the tumor diminished

considerably in size. Altogether this patient received twenty-four injections of two c. c. each, of the antituberculous serum. A second case occurred in a man aged twenty-five years, who had suffered from tuberculous glands in the neck for some years. Injections of the same serum were given in doses of five c. c. each, and gradual improvement was noted, until at the time of writing the glands were reduced to very small, indolent, and painless swellings. The author recommends the use of this serum in the treatment of tuberculous affections of the glands, and says that, in addition to its local effect, the serum is bound to be of benefit through the systemic effect which it exercises upon the tuberculous infection.

ROUSSKY VRATCH.

October 16, 1904.

1. An Attempt to Treat Tuberculosis with Marmorek's Antituberculosis Serum, By G. P. ZELENY.
2. Progressive Muscular Atrophy in a Boy Aged Ten Years, By P. J. KOROLKOFF.
3. On the Action of Atropine on the Intestines, By N. E. RIEDEL.
4. On Chronic Suppurative Inflammation of the Falloppian Tubes in Its Clinical and Pathological Relations (*Concluded*), By V. N. ORLOFF.
5. Inoscopy of Pleuritic Exudates, By P. S. MEDOVITSKY.

1. **Marmorek's Serum in Tuberculosis.**—Zeleny reports unfavorably on the action of Marmorek's serum in tuberculosis. He gives the histories of three cases in detail. A number of untoward symptoms may be produced by the injection of the remedy, and in some instances even life itself may be threatened. In two cases symptoms threatening life were observed, so that the treatment could not be carried on, but enough had been given to see the effect of the remedy. Collapse after injections of antituberculosis serum have already been observed by Latham. While some improvement was noted in the first case after the first injections, the signs in the left lung became more marked, and a cavity developed. In general, the condition of the patients became worse after the injections, although, of course, it was impossible to say with certainty that they would not have become worse if the serum had not been given. At all events, the author has no doubt that the serum cannot arrest the development of the disease. It was noted that the fever was higher after the use of the serum than it had been before. The same phenomenon was observed by Latham, who attributed it to the cumulative action of the serum. Marmorek's serum must, therefore, be used with great caution.

3. **Action of Atropine on the Intestine.**—Riedel, in this preliminary communication, reports the result of his experiments on the intestines of rabbits and cats, in which he tested the action of atropine. The intestines were isolated in the manner now employed by physiologists, and placed in an appropriate bath which kept up their living properties. In other animals he performed laparotomies and immersed the abdomen in appropriate baths, watching the actions of the intestines under the influence of atropine. His conclusions were as follows: Atropine, either in weak or in strong solutions, stimulates and regulates the contractions of the intestines. Weak solutions act chiefly on the longitudinal muscle fibres of the intestines, while stronger solutions act chiefly on the circular fibres. Very strong solutions of atropine produce a tetanic state in the intestines. Even saturated solutions of atropine do not paralyze the isolated intestine. The irritability of the muscle tissue of the isolated intestine is increased by atropine. As the result of these observations, there is reason to believe that the drug in question stimulates the motor ganglia of the intestine, first producing a contraction of the longitudinal fibres and then of the circular fibres. Atropine does not act on the empty intestine, but if injected into the veins of an animal with full intestines it promotes peristalsis. Paralysis of the intestines from atropine occurs very rarely in living animals, even after poisonous doses, and is then intimately connected with the paralysis of the heart and respiration. The mode of action of atropine on the intestine, which was hitherto unknown, is probably through its influence on the motor nervous mechanism of the guts (Auerbach's plexus), and through a rise in the irritability of the muscle fibres. The longitudinal fibres are excited first, then the others.

4. **Salpingitis.**—A detailed clinical and pathological study of suppurative salpingitis convinced Orloff that the chief cause of the chronic purulent inflammations of the Falloppian tubes which are most frequently met with in practice is the gonococcus. A hydrosalpinx may become a pyosalpinx in virtue of the invasion of pus germs, and, on the other hand, the contents of a pyosalpinx after a time may become sterile, so that its rupture into the peritoneal cavity is not fraught with great danger. The best method of operation is a laparotomy in the Trendelenburg position, with great care to avoid infection of the rest of the abdominal cavity. Vaginal operations do not offer a means for radical cure, and should be resorted to only for opening pyosalpingitides that lie low down, and are surrounded by a great deal of adhesions, and in cases where the patient's condition does not permit of a laparotomy. In order to stimulate the healing of an opened pus tube, the author recommends the injection into its cavity of a solution of zinc chloride, varying in strength from ten to forty per cent.

5. **Inoscopy of Pleuritic Exudates.**—In three cases out of six Medovikoff found tuberculous exudates by means of inoscopy. Two of these cases were primary pleurisies, and one was undoubtedly secondary in character. He noted also that in all cases in which he found tubercle bacilli in the exudate, the patients lost weight and strength which they did not regain in spite of proper treatment. Inoscopy, as we know, is the method introduced by Jousset in 1903, whereby the tubercle bacilli in an exudate are concentrated and more easily found by bacteriological examination. The method consists of coagulating the

exudate, then centrifugating it, and dissolving the centrifugated coagulum with a peptonizing solution. The tubercle bacilli are collected in the coagulum, and are easily found in the dissolved deposit. Jousset found that one hundred per cent. of pleurisies with effusion showed the presence of tubercle bacilli. The results of the present author, give only fifty per cent. of tuberculous pleurisies, although his material embraced only six cases. He believes, however, that he has cast a doubt on Jousset's conclusions.

BOSTON MEDICAL AND SURGICAL JOURNAL.

November 17, 1904.

1. The Diagnosis and Treatment of the So Called Rheumatoid Diseases, By JOEL E. GOLDTHWAIT.
2. Arthritis Deformans, By E. H. BRADFORD.
3. Chronic Joint Disease. By HENRY JACKSON.
4. Chronic Joint Disease at the Massachusetts General Hospital, By H. F. VICKERY.
5. Rheumatoid Disease in Children, By JOHN LOVETT MORSE.
6. Types of Rheumatoid Disease, By C. F. PAINTER.

1. **Rheumatoid Disease.**—Goldthwait's paper is a report on the work that has been done during the past twelve years by a number of men, chiefly at the Carney Hospital, for the sole purpose of attempting to shed some light on so called rheumatoid diseases. Five types of disease have been recognized and studied, and the author devotes his paper to a description of each of these types and to a consideration of their ætiology, pathology, and treatment. (1) Chronic villous arthritis or "dry joint." This is a local process with no tendency to progression. This condition occurs most frequently in the knee. (2) Atrophic arthritis is a progressive disease resulting in marked distortion and great crippling, with the essential pathological feature one of atrophy in which the joint membranes, the cartilage, the bones, and in the exposed joints, even the skin, all show the change. The disease may attack one or several joints. Its ætiology is unknown. Some of its features suggest a trophic origin. (3) Hypertrophic arthritis may be either a local or a general process, and is characterized by a thickening at the edges of the articular cartilages or at the attachment of the ligaments, forming ridges or nodes which become ossified, and interfere in varying degrees with joint motion. (4) Infectious arthritis is by far the most common, and includes most of the cases commonly spoken of as acute or chronic rheumatism and as septic arthritis, as well as many formerly spoken of as arthritis deformans. This type of disease apparently results from the presence within the body of some infectious organism, the symptoms being due either to the presence of the organism itself within the joint, or to some toxine produced by that organism in some other part of the body. (5) Chronic gout is less understood than the other types because much less common, and no attempt is made in designating it to use more than a descriptive term, the pathology being too little understood. In the few cases studied the essential characteristics are the same, the chief ones being deposits of the urate of sodium in the soft structures about the joints, with some bone absorption adjacent to the deposits. The article is very finely illustrated, and is a model of its kind.

November 24, 1904.

1. The Ideal of Accuracy in Clinical Work: Its Importance, Its Limitations, By RICHARD C. CABOT.
2. Metatarsotarsal Valgus or Humped Foot and Its Relation to Boots, By E. H. BRADFORD.
3. The Pain of Osteoarthritis of the Spine: Its Bearing on the Diagnosis of Urinary Disease, By ARTHUR L. CHUTE.

2. **Boots and the Foot.**—Bradford discusses the various deformities of the foot that are due to the wearing of ill fitting boots. Drawings from skiagraphs are shown which illustrate how fashionable shoes force the foot into unnatural shapes. Humped foot is due to shoes built in such a way as to prevent the spreading of the toes. These shoes are shaped low in front and the upper is cut snugly and stitched with an inelastic oblique seam which exerts close fitting pressure on the whole of the front of the foot. The remedy for foot deformities due to improper shoes is evident. It should be the custom for all people who pay attention to their foot wear to furnish themselves with working and with dress boots, and to relieve the foot from all pressure when at leisure, wearing moccasins or Turkish slippers. The working shoes of women should be like those of men, giving freer play to the foot. Children should wear moccasins, sandals and loose, light boots and shoes.

3. **Osteoarthritis of the Spine.**—Chute applies the term "osteoarthritis" of the spine to those chronic, non-tuberculous processes which are characterized clinically by more or less stiff or immobile spines, usually presenting considerable spasm of the back muscles and often accompanied by local or referred pain. It is only those cases of osteoarthritis which are accompanied by pain that are likely to be mistaken for cases of genitourinary disease. The author reports a number of cases in which such a mistake in diagnosis was made at times by very competent genitourinary surgeons. If the possibility of spinal disease be kept in mind mistakes should be exceedingly infrequent, as the diagnosis presents no very great difficulties.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

November 26, 1904.

1. Drugs Irritant to the Kidneys, and Hence to be Avoided in Impaired Kidney Function, By TORALD SOLLMANN.
2. The Ætiology and Pathology of Gout (*To be continued*), By THOMAS B. FUTCHER.
3. The Rational Application and Value of Specific Treatment for Tuberculosis, By EDWARD R. BALDWIN
4. Injuries to the Rectum Caused by Gynæcological Examinations, By HOWARD A. KELLY.
5. The Treatment of Otitic Septicæmia, By B. A. RANDALL
6. Plastic Operations for the Closure of Postaural Openings Following Radical and Mastoid Operations, By EDWARD BRADFORD DENCH.

7. The Palliative Treatment of Acute Mastoiditis and Its Limitations, By PHILIP HAMMOND.
8. A Case of Bilateral Tuberculosis of the Middle Ear in an Infant, By DUNBAR ROY.
9. The New Ophthalmology and Its Relations to General Medicine, Biology, and Sociology (*Concluded*), By GEORGE M. GOULD.
10. Types of Children (*To be continued*), By W. S. CHRISTOPHER.
11. Constipation in Infants, By J. ROSS SNYDER.
12. Perinephritis in Children, By WISNER R. TOWNSEND.

1. **Drugs Irritant to the Kidneys.**—Sollmann in his paper discusses two distinct subjects: (A) The study of renal irritants, and (B) the question whether the use of these drugs should necessarily be condemned in nephritis. (A) The more important nephritic poisons may be grouped as follows, according to the tissues which they may affect: 1. Tubular epithelium primarily; stroma secondarily; metals, aloin, coal tar products, alcohol and anæsthetics, oxalates. 2. Glomeruli primarily; tubules only with larger doses; cantharidin, arsenic. 3. General irritants; essential oils. 4. Only irritant under special conditions: Caffein, neutral salts of alkalies. 5. Affecting kidney secondarily: Poisons destroying blood; chronic poisons (alcoholism, morphinism). The author, however, studies the kidney irritants according to their chemical affinities rather than according to their effects on specific parts of the kidney tissues. (B) Are these drugs contraindicated in nephritis? This question cannot be answered off hand. At first sight and arguing by analogy it would seem as if they should be. It must be remembered, however, that poisons retained in the circulation may be a greater menace to a patient's life than an added irritation to an already inflamed kidney. More than this, it does not necessarily follow that, because a drug which in large doses is capable of producing serious kidney lesions must of necessity produce such lesions in ordinary therapeutical doses. The author does not succeed in answering the question he propounds.

3. **Tuberculosis.**—Baldwin asserts that in a limited class of cases tuberculin is of specific value in the treatment of pulmonary tuberculosis. The clinical rules for the exhibition of the remedy are: All forms of acute tuberculosis are to be excluded from this treatment, both on account of the danger of increasing the load for the already poisoned cells, and of the possible extension of the disease either from the increased inflammation or from the decreased resistance. For similar reasons patients with extensive or advanced lesions complicated with other infections, renal or intestinal disease, are to be excluded. There remain as suitable for treatment only early, localized, apyretic cases, with some arrested or quiescent ones of longer standing which have good nutrition. Some more advanced or chronic cases which still have good resisting powers have been very successfully treated by tuberculin in spite of some fever. As a rule, however, it cannot be recommended on rational grounds for such cases.

4. See this *Journal*, Vol. LXXX, page 135.

5. **Otitic Septicæmia.**—Randall urges the great value of enteroclysis in the treatment of otitic septicæmia. Specially so in those cases where for one reason or another operation is not resorted to.

8. **Tuberculosis of the Middle Ear.**—Roy, after reporting one case of tuberculous disease of the middle ear, gives the following advice regarding the treatment of this condition: (1) If there is free drainage of the tympanic cavity through the auditory canal; if there are no granulations present and no symptoms of facial nerve paralysis; if the mastoid does not show and has never shown any signs of involvement, and if there are no extensive areas of necrosis, treat the condition expectantly through the auditory canal. (2) If there is facial paralysis and extensive granulations extending out into the canal; if the mastoid shows or has shown involvement, whether tuberculous or not, and the patient shows vitality enough to stand the anæsthetic, perform the radical operation immediately.

11. See this *Journal*, Vol. LXXX, page 137.

12. See this *Journal*, Vol. LXXX, page 329.

MEDICAL RECORD.

November 26, 1904.

1. Diseases of the Skin Connected with Errors of Metabolism, By L. DUNCAN BULKLEY.
2. A Case of Conglomerate Tubercle of the Chorioid, By THOMAS R. POOLEY.
3. The Treatment of Pneumonia, By FRANK DE WITT REESE.
4. Three Cases of Primary Malignant Tumor of the Lung, By SIEGFRIED WACHSMANN, and ALFRED W. POLLAK.
5. Report of a Case of Chronic Cystic Dilatation of the Vermiform Appendix, By J. C. LANDENBERGER.
6. Natural vs. Scientific Feeding of Infants, By D. E. ENGLISH.

1. **Diseases of the Skin.**—Bulkley reviews the connection between errors of metabolism and diseases of the skin. He sums up his conclusions in ten formal statements. Of these we reproduce five. Certain skin lesions, or eruptions, have been credibly reported as connected with or dependent upon the generally recognized metabolic conditions of (1) gout; (2) rheumatoid arthritis; (3) diabetes; (4) obesity; (5) scrofulosis. (2) As yet no absolute statements can be made as to the necessary connection of the two, for the same eruptions occur in several of the metabolic affections. (3) The idiosyncrasy of the patient, and many causative elements, external or internal, nervous, etc., often determine which form of skin disturbance or alteration shall take place. (4) Errors of diet, disorders of digestion, faulty excretion and nervous derangement, which have all along been recognized as causative elements in many diseases of the skin, often find their ultimate expression or mode of action through the faulty metabolism induced thereby. (5) Complete and minute urinary analysis is a very great aid in discovering metabolic errors, and

in establishing proper therapeutic measures for the cure of many diseases of the skin.

2. **Tubercle of the Chorioid.**—Pooley reports one case of conglomerate tubercle of the chorioid, with extension into the sclera and retina and secondary glaucoma. A primary focus of the disease could not be found. The eye was enucleated and there was no relapse of the disease (elapsed time about eighteen months). The author concludes: "In considering in a general way prognosis and treatment, I agree with Griffith that we are not justified in removing every eye affected by tuberculosis, in the hope of preventing general infection. This should only be done when the eye is either lost or the course of the disease is of a markedly rapid and progressive character. But the eye should be carefully observed, and the disease treated with the usual remedies. Death may occur—whether or not enucleation has been performed—from tuberculosis of any organ, but not with the same frequency that it does in miliary tubercle of the chorioid. Thus, as pointed out by Griffith in the summing up of the whole matter, it is more than probable that the dissemination takes place not from the affected eye, but from the lighting up of activity of some latent focus in the interior of the body."

3. **Pneumonia.**—Reese believes that the salts of potassium have a specific action in pneumonia and that by their use the mortality from the disease can be greatly reduced. He describes in detail his own peculiar method of treatment, which, in twenty-one consecutive cases, gave a negative mortality, though two of the patients died, but not from the pneumonia. He sums up his advice thus: (1) More attention should be given to the prodromes of pneumonia; for the toxæmia may be cellular or due to the *Diplococcus lanceolatus*. (2) The treatment should be eliminative and some form of potassium should be used. (3) Rest is of the greatest importance. (4) There is no indication in the treatment of pneumonia that cannot be met by other remedies than alcohol.

4. **Malignant Tumors of the Lung.**—Wachsmann and Pollak report three cases of primary malignant tumors of the lung. Necropsies were obtained in all three cases and the pathological findings were: Case I. *(a)* Pulmonary carcinoma, probably primary in the lung, with general lymphatic metastases; *(b)* hepatic carcinoma; *(c)* carcinoma of the thyreoid gland. Case II. Carcinoma of the lungs, with metastases in the heart, liver, ribs, kidneys, clavicles, skull, mesenteric glands, and suprarenal capsules. Case III. *(a)* Acute hæmorrhagic, neoplastic pericarditis with lobar pneumonia terminating a tumor of the lung with lymphatic metastases; *(b)* chronic parenchymatous nephritis with fatty degeneration; *(c)* septic bronchitis; *(d)* thyreoid struma. The clinical history of carcinoma of the lung resembles mostly a tuberculous affection, but runs a more rapid course and is not accompanied by fever. In the beginning expectoration resembles the frothy sputum of a bronchitis, but soon it assumes the mucopurulent, tenacious, globular nature of tuberculous sputum, and quite often shows streaks of blood, or even at times larger quantities. In the later stages copious hæmorrhages may occur.

AMERICAN MEDICINE.

November 26, 1904.

1. The Problems of Internal Medicine, By WILLIAM SYDNEY THAYER.
2. Seventy Intubations for Laryngeal Diphtheria, with Some Statistics Referring to the Lack of Hospital Facilities for the Care of Diphtheria and Other Contagious Diseases, By ROSA ENGELMANN.
3. Laboratory Aids in the Rapid Diagnosis of Rabies, By WALTER H. BUHLIG.
4. Inversion of the Uterus: The Treatment in Cases Complicated by Necrosis of the Inverted Part, By BROOKE M. ANSPACH.
5. Variations of Radiotherapeutic Technics, By RUSSELL H. BOGGS.
6. The Society for Experimental Biology and Medicine, By WILLIAM J. GIES.
7. Ethical Pharmacy, By A. L. BENEDICT.

2. **Intubation.**—Engelmann's seventy cases of intubation were performed by her in behalf of the Chicago Health Department. Conditions were necessarily poor. The total mortality was thirty-seven and two tenths per cent. A table gives the chief points of interest concerning these seventy cases. In the second part of her paper the author gives for each of twenty-five of the largest cities in the country the following information: (1) Total population; (2) number of beds provided by the city for smallpox patients; (3) the number of beds provided, if any, for other contagious diseases. From the data given it appears that Boston, New York, and Philadelphia, in the order given, exceed all other cities in the adequacy of provision for the hospital care of contagious diseases other than smallpox.

3. **The Rapid Diagnosis of Rabies.**—Buhlig asserts that the efficacy of preventive inoculation against rabies is conditioned by the number of days that elapses between the time of the injury and that of coming under treatment. Since an interval of only a week may utterly destroy the possibility of a favorable outcome of the Pasteur treatment, it is of paramount importance to make the diagnosis within a day or so after the bite, if possible within 24 hours, for the longer the interval, the smaller the chance for a cure. To this end, a number of histological examinations of the tissue of the supposedly mad animal can be made, and it is the purpose of this paper to enumerate some of the microscopical findings which will help to make a diagnosis of probable rabies in the suspected animal, and to describe briefly the technics to be followed. Inoculation experiments are not to be considered, for they can in no sense be interpreted as a means to a rapid diagnosis. The methods of rapid diagnosis are: (1) The Van Gehuchten-Nélis reaction. (2) The demonstration in the central nervous system of the structures of Negri. (3) The demonstration of the "nodules rabiques" of Babes. (4) The examination of the stomach for foreign bodies. (5) The estimation of the leucocytes. There are some other possible aids to diagnosis, but they are only of doubtful utility. Only a trained pathologist

is capable of making the tests enumerated by the author.

4. **Inversion of the Uterus.**—Anspach reports one case which he treated by amputation of the inverted portion. The author concludes: When inversion of the uterus is not accompanied by necrosis and gangrene, there are two plans of treatment: (1) Reduction by manipulation alone. (2) Reduction after incision of the constricting cervical ring. When for any reason reduction is impossible, amputation of the inverted part is preferable to hysterectomy: (a) Because there is no danger of infection. (b) Because the operation is really supravaginal hysterectomy without removal of either of the annexa. The patient, although she be incapable of bearing children thereafter, will still preserve her other functions intact. It is better to clamp the pedicle because a suture might carry infection in its track to the peritonæum. The danger of injuring a knuckle of intestine caught in the funnel of the inversion may be avoided by making a longitudinal section of the inverted part before cutting it away below the forceps.

5. **Radiotherapeutics.**—Boggs concludes: (1) Technics is the watchword of success. (2) Usually the combination of surgery and the Röntgen ray will produce the best results. (3) Tube distance is important when treating deep seated glands. (4) In the treatment of superficial lesions a low tube placed near to the surface of the skin eliminates the danger of injuring the deeper tissues. Periostitis has been caused by a high tube placed at a distance. (5) Each case should be an individual study. (6) Adjunct treatment should not be overlooked.

MEDICAL NEWS.

November 26, 1904.

1. Operative Treatment of Retroversion and Retroflexion of the Uterus, By WALTER A. JAYNE.
2. Stone in the Kidney; Its Diagnosis and Operative Treatment, By JOSEPH RANSOHOFF.
3. Therapeutical Value of Colorado Climate, By F. GILLETT BYLES.
4. Does Absence of External Injury Legally Demonstrate Fright or Mental Ætiology? By JAMES G. KIERNAN.
5. Compressed Air Illness, or Caisson Disease, By CHARLES J. ALDRICH.
6. A New Case of Chloroma with Leucæmia, with a Study of Cases Reported Since 1893 (*Continued*), By GEORGE DOCK, and ALDRED SCOTT WARTHIN.

1. **Retroversion of the Uterus.**—Jayne discusses the general principles which underlie the various operations for the relief of uncomplicated retroversion of the uterus. No special operation is advocated.

2. **Stone in the Kidney.**—Ransohoff asserts (1) that there is no absolute or positive method of recognizing a stone in the kidney, and (2) that there are pathological conditions of the kidney whose symptom-complex simulates that of stone to a nicety. A study of kidney cases which simulate stone in the kidney emphasizes two important facts: First, that chronic interstitial parenchymatous and capsular inflammation of the kidney may be limited to one side. Rayer already called attention to a case of this kind in his classical treatise on the kidney. Second, that a surgeon should not consider an operation on the kidney in which he expects to find a stone negative in its results when changes in the kidney are found. Capsule splitting and the section of the kidney will doubtless relieve many cases which simulate stone, and which because of the impossibility of making positive diagnosis are not now subjected to an exploratory operation. If a case is operated upon for stone, and the stone is not found, a piece of the kidney should be removed and examined microscopically in order to determine its exact condition.

4. **Absence of External Injury; Its Legal Aspect.**—Kiernan considers only the law of Illinois and recites at length the decision of the Appellate Court in the case of Baudler vs. People's Gaslight and Coke Company. The paper will be of value chiefly to residents of Illinois.

5. **Caisson Disease.**—Aldrich has seen about fifty cases of caisson disease during the construction of the Cleveland water tunnel. He discusses the clinical phases of the disease and offers a few remarks on prophylaxis. The disease itself varies in severity from slight attacks of dizziness to violent convulsive seizures, which are followed by coma and death. The severity of an attack is dependent on many causes, chief among which are poor ventilation, too rapid "locking in" or "locking out," excessive pressure, or too long subjection to more moderate pressures. It is very doubtful if the disease ever occurs in workmen subjected to less than fourteen pounds pressure, and both its severity and frequency increase in a direct ratio to the rise in the atmospheric pressure multiplied by the length of time of exposure to such pressure. Men can usually work with comparative safety for a period of eight hours under a pressure of from fifteen to twenty pounds in addition to the one atmosphere of the surrounding air; under a pressure of twenty to thirty pounds, six hours divided into two shifts of three hours each; under a pressure of thirty pounds, two hours divided into two shifts of one hour each; but under a pressure of from forty to forty-nine pounds, two shifts forty minutes each are all that can be borne with any degree of safety.

LANCET.

November 12, 1904.

1. English Medicine in the Anglo-Norman Period. Fitzpatrick Lectures: I, By J. F. PAYNE.
2. Social Evolution and Public Health, By A. NEWSHOLME.
3. Paralysis as it Occurs in Children, By J. TAYLOR.
4. A Case of Carcinoma of the Appendix, By C. J. CULLINGWORTH, and E. M. CORNER.
5. Inflammation of the Muscles, with Special Reference to Two Cases of Infective Myositis, By J. H. ABRAM.
6. The Treatment of Obstructed Labor When Caused by the Impaction of a Tumor in the Pelvis, Illustrated by Four Cases, By T. H. MORSE.
7. A Case of Exophthalmos in the Newly Born, By H. H. BORLAND.
8. The Evolution of Man's Diet. VII, By H. CAMPBELL.

3. **Paralysis in Children.**—Taylor thinks there are some points of distinction between paralysis as it occurs in children and in adults. The parts of the nervous system that suffer in children are affected in young and growing subjects. Primary disease of the blood vessels is not a causative factor of hemiplegia in children. Congenital syphilitic endarteritis is of course excluded. Many children are born with some form of mental or physical disability, due to disease or accident occurring during intrauterine life. "Birth palsy" comes under this head. In another class of cases there seems to be an inherited tendency in certain parts of the nervous system to early death (abiotrophy of Gowers). And finally there are the cases known as the muscular dystrophies, which depend for their essential features upon a tendency to early decay and death which is present in the muscular structures themselves.

Infantile paralysis, although characteristically a disease of early life, may occur at any age. It nearly always affects extremely healthy children, and occurs chiefly in the summer. The mode of onset is varied and may be insidious and deceptive. The onset may be severe and simulate basic meningitis, or the disease may follow a fall and trifling peripheral injury of a limb. In treating the condition by means of massage and galvanism the intention is to stimulate the muscles and to keep up their nutrition until the nerves are again capable of conveying impulses. In the early stages the prognosis is good as regards partial recovery, but it is very rare that a case of infantile paralysis recovers completely. Infantile hemiplegia occurs in the first few years of life, and is usually ushered in by either a convulsion or a series of convulsions which affect the side which afterwards becomes paralyzed. As a result of the disease we have the leg, arm, and usually the face paralyzed to some extent. Fits of the same Jacksonian variety as those which usher in the hemiplegia, occur frequently after the condition has become established. These conditions probably depend upon some inflammation of the gray matter of the brain. The author reports cases illustrative of these conditions. He also briefly discusses diplegia, pontine tumor, Friedreich's ataxy, and pseudohypertrophic paralysis.

4. **Cancer of the Appendix.**—Cullingworth and Corner report a case of carcinoma of the appendix, occurring in a woman aged thirty-one years. It was successfully removed, and the patient has remained well. Primary cancer of the appendix is an uncommon disease. Clinically the diagnosis is impossible, the case appearing to be simply one of chronic, subacute, or acute appendicitis. In about half the cases the tumor is found at the distal end of the appendix. It has been found as (1) a hard, small, whitish nodule; (2) a more or less caseous little mass; (3) a nodule breaking down in the centre; (4) an apparently fibrous stricture; (5) an apparent obliteration of the lumen of the tube; and (6) a nodular bulbous tip to the organ. The material and organisms imprisoned behind the cancerous stricture are very likely to precipitate an attack of appendicitis. Most of the subjects are young, and yet the prospects of cure are good. Either the growth sloughs or the patient dies from appendicitis or the organ is removed before dissemination has occurred.

5. **Infective Myositis.**—Abram reports two cases in which an inflammatory process in a muscle was a distinctive feature in the symptom complex. In spite of their rarity muscle inflammations are important from their deadly character. He uses Lorenz's classification—A. Suppurative: (1) traumatic; (2) by extension; (3) metastatic; and (4) infective myositis. B. Non-suppurative: (1) polymyositis; (a) dermatomyositis; (b) p. hæmorrhagica; (c) p. with erythema multiforme; (2) neuromyositis; (3) myositis in connection with joint lesions; (4) myositis tuberculosa; and (5) myositis syphilitica. C. Varieties with special terminal lesions: (1) muscle scars (myositis fibrosa); (2) myositis ossificans. Dermatomyositis is not unlike trichinosis, but its causation is unknown. There are marked fever and sweating and enlargement of the spleen. Death occurs from lesions of the respiratory muscles or the patient recovers slowly. Polymyositis hæmorrhagica is very similar to the foregoing, but the heart is especially affected. Neuromyositis is very closely related to multiple neuritis. Acute rheumatism and gonorrhœa furnish examples of myositis with joint lesions. Tuberculous myositis may be either hæmatogenous or due to extension. Myositis fibrosa is generally secondary. Microorganisms play a large part in the immediate causation of muscle inflammation. This has been definitely proved in the suppurative varieties. In the non-suppurative varieties, although this causation is probable, it has not as yet been supported by direct evidence. Lessened resistance to infection from exposure to cold and exhaustion predisposes to myositis, and the hæmorrhages known to occur in overworked muscles afford a definite localizing influence. In both the author's cases of infective myositis, the pectoralis major was the muscle affected. Fever is present, pain is a marked feature, and the affected muscles are swollen, hard, and shortened. One of his patients recovered, the other died within one week of the onset of the disease. In both cases the sheath of the pectoral muscle was laid open.

BRITISH MEDICAL JOURNAL.

November 12, 1904.

1. English Medicine in the Anglo-Norman Period. Fitzpatrick Lectures: I, By J. F. PAYNE.

(Seventy-second Annual Meeting of the British Medical Association.)

Section of Ophthalmology.

2. Introductory Remarks, By R. W. DOYNE.
3. Discussion on Retroocular Neuritis, By R. M. GUNN, G. A. BERRY, C. HIGGENS, and Others.
4. The Vision of Birds, By Professor POULTON.
5. On the Artificial Maturation of Immature Senile Cataract by Trituration, By M. M. MCHARDY.

6. Astigmatism with Varying Axes, By K. Grossmann.
7. Discussion on Intraocular Hæmorrhage and Systemic Disease, By A. H. Griffith, L. Howe, S. D. Risley, and Others.
8. Some Practical Remarks on Magnet Operations, By Dr. Hirschberg.
9. Investigations on the Comparative Visual Acuity of Savages and Civilized People, By W. H. Rivers.
10. Remarks on the Diagnosis and Treatment of Glaucoma, By G. A. Berry.
11. The Operative Treatment of High Myopia, By W. A. Frost.
12. The Importance of the Corneal Temperature and Nictitation in Corneal Therapeutics, By A. M'Gillivray.
13. Summary of Twenty Years' Treatment of Myopia, By E. Clarke.
14. Keratitis Profunda: Results from Analysis of Fifty-four Cases, By W. T. H. Spicer.
15. A Modification in the Usual Method of Using Cocaine in Operations Upon the Eyeball, By K. Koller.
16. On the Measurement of the Rapidity of the Lateral Motion of the Eye, By L. Howe.
17. A Modified Bowman's Syringe, By W. W. Griffin.
18. A Case of Congenital Word Blindness, By J. Hinshelwood.
19. A Case of Word Blindness with Right Homonymous Hemianopsia, By J. Hinshelwood, A. Macphail, and A. R. Ferguson.
20. Albuminuric Retinitis, By G. Carpenter.
21. The Lymph Follicles in (Apparently) Healthy Conjunctivæ, By N. B. Harman.
22. Notes on a Case of Thrombosis of the Cavernous Sinus Due to Empyema of the Sphenoidal Sinus, By A. Bronner.
23. The Combined Treatment in Diseases of the Eye, Especially in That of the Vocal Tract, By V. H. Burnham.

Section of Obstetrics and Gynæcology.

24. Case in Which Ovarian Tumor Was Simulated by Lymphangeioma of Omentum and Peritonæum, By J. B. Hellier.
25. Carcinoma of the Cervix Complicating Pregnancy and Labor, By J. M. M. Kerr.
26. Suggestions for the Prevention of Puerperal Infection in Private Practice, By J. W. Byers.
27. Notes on Some Cases of Ectopic Gestation, By E. J. Maclean.

3. **Retroocular Neuritis.**—Gunn states that the terms rectroocular and retrobulbar neuritis are used to indicate cases that show evidence of one or both optic nerves being impaired by an inflammatory affection exerting its chief influence behind the papilla. The evidence is as a rule entirely clinical, the chief characteristics being rapid failure of vision, impaired pupil reaction, absence of early ophthalmoscopic signs, with a tendency to recovery.

7. **Intraocular Hæmorrhage.**—Griffith tells us that primary or independent intraocular hæmorrhage may occur from the following general conditions: 1. Blood changes. Infective endocarditis, pyæmia, septicæmia, purpura, scorbutus, and pernicious anæmia. Other toxic conditions, as phosphorus poisoning and parasitic blood affections. 2. Diseased state of finer vessels. 3. Back pressure of cardiac disease. 4. Embolic processes and thrombosis. The author has never seen spontaneous hæmorrhage into the anterior chamber of the eye. In 6,500 consecutive eye cases there were only 33 cases of spontaneous hæmorrhage—0.5 per cent.

9. **Visual Acuity.**—Rivers, after examining a large number of people of all tribes and nationalities, has come to the conclusion that apart from errors of refraction, man all the world over has practically the same amount of vision, and that in instances in which savages appear to possess greater visual acuity than white men, it is entirely due to practice and education, and to their being entirely familiar with their surroundings.

10. **Glaucoma.**—Berry's experience of iridectomy for glaucoma has convinced him that when the tension is thereby permanently reduced to the normal the progress of the disease is definitely stopped at whatever stage and for whatever type the operation has been done. In the constantly non-congestive forms of glaucoma, iridectomy, though it may check the disease, is never followed by any improvement in either central or peripheral vision. The best way to perform iridectomy is by an incision made with a keratome, which, although it should be peripheral, must not be so peripheral as to involve the filtration angle. It is probably unnecessary to excise as large a piece of iris as advised by v. Graefe.

12. **Corneal Therapeutics.**—M'Gillivray states that the low temperature of the normal cornea (about 18° F. below body temperature) inhibits the growth of pyogenic microorganisms, and that the continuous closure of the lids from photophobia or the use of bandages, raises the temperature to a point not conducive to repair, but conducive to bacterial growth. In the treatment of corneal abrasions or ulcers, therefore, the photophobia should be specially attended to, and the use of bandages avoided. Cocaine ointment is excellent to combat the photophobia. The removal of photophobia restores the very important function of winking, by means of which the wound is cleansed of germs and their poisonous products.

13. **Myopia.**—Clarke advocates the full correction of all cases of myopia and compound myopic astigmatism. In high degrees the full correction may not be accepted. If this principle were carried out generally, progressive myopia and of high degrees would become unknown.

21. **Conjunctival Lymph Follicles.**—Harman has studied the occurrence of lymph follicles in the palpebral conjunctiva, and their relation to trachoma. He concludes that the average diagnosis of "follicular conjunctivitis" is defective: it does not take into consideration the frequency with which enlarged follicles are seen in healthy subjects; it gives no indication whether the case is to be taken to be a simple catarrh occurring in such a subject, or whether the examiner conceived it to be something of a more serious nature.

Letters to the Editor.

"INTERNAL SECRETIONS."

2043 Walnut Street,
Philadelphia, *November* 28, 1904.

To the Editor,

Sir: Professor William H. Thomson closes his address on the Internal Secretions, published in your issues of November 19th and 26th, with an acknowledgment that the time limit that an evening discourse imposes had necessarily hampered his treatment of this extensive subject. Any one at all familiar with Professor Thomson's labors cannot but recognize that any lack of thoroughness on this score should be ascribed to circumstances beyond his control. Under these conditions, however, would it not have been preferable if he had stated that the conclusions reached were necessarily based on an extremely small proportion of the experimental and clinical evidence available, instead of presenting them as the result of an inquiry based "on the facts which *so far* have been demonstrated about each one of the organs which are reported to charge the blood with an internal secretion"? The spleen, for example, is regarded by him at best "as a sort of diverticulum in the course of the portal circulation." Can we accept such a conclusion in the absence of all reference to the painstaking labors of Schiff, Herzen, Lépine, Gachet and Pachon, Fusari, Kutscher, Mall, Hedin, Rowland, Leathes, and many others—all, in fact, the workers in this special field?

The pituitary body is also denied active function. To ascribe the "massive nutritive changes in cases of acromegaly to *loss* of function by disease of a body which itself weighs only five to ten grains, and only one lobe of which has a glandular character" seems to Professor Thomson "quite fanciful." This criticism would be applicable if all modern investigators entertained the view criticized. But such is not the case. Tamburini, Harlow, Brooks, the writer, and others have urged that *excessive* functional activity of the pituitary body was the primary pathological factor of acromegaly—a feature of the problem which clearly meets Professor Thomson's objection that cases have been reported in which "*destruction* of the pituitary body" . . . "was unaccompanied by acromegaly." Again, if we must take cognizance of weight in the estimates of the functional attributes of any organ, the pituitary body merits considerable attention, judging from the character of its contents. Not only have Luschka and Müller observed that the substance of the posterior lobe was composed of gray substance recalling that of the cerebral cortex, but various types of highly organized nerve cells have been found in this organ by such histologists as Kölliker, Lloyd Andriezen, Berkley, and Ramon y Cajal, the latter of whom traced neuraxones to a large group of nerve cells behind the optic chiasm, i. e., up to the third ventricle. Comparative anatomy affords ample evidence to the effect that this region is connected directly or indirectly with all parts of the organism by way of the tegmentum, the bulb, and the cord—thus clearly showing how the pituitary body can influence the whole system. If to this we add the facts (1) that while all the vegetative functions continue in so high a mammal as the dog when both cerebral hemispheres are removed, death invariably follows when the adult dog is deprived of its pituitary body; (2) that the least mechanical or electrical excitation of this organ causes instant and marked elevation of the blood pressure of the entire organism—all fully confirmed facts—and finally (3) that, as shown by Cyon, destruction of the pituitary at once deprives the nasal mucous membrane of all reflex sensibility, we cannot but conclude that we must be dealing with an important organ.

This may be said, it seems to me, of all the structures reviewed by Professor Thomson, and I am convinced that if it had been possible for him to closely scrutinize all the available literature, experimental as well as clinical, of these organs, his views as to the nature and importance of their functions would have differed materially from those embodied in his address.

Charles E. de M. Sajous.

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Boston Emergency and General Hospital.—Under the superintendence of Dr. George W. Galvin the new Boston Emergency and General Hospital, at No. 144 Kingston Street, has been formally opened. A large number of medical men and others interested in the work of the institution were present at the reception on November 9th. The hospital occupies five floors of the building, and is fitted with new apparatus of almost every sort known to medical science. There are accommodations for forty-one patients, and Dr. Galvin has a corps of twelve surgeons and sixteen nurses with whom to begin work. The whole place is roomy, of immaculate appearance, and is most artistically arranged and furnished. The hospital will be run on a somewhat different plan from the old Emergency Hospital. Besides the regular members who now number more than 30,000, a d who pay $1 a year, receiving in return whatever treatment they may need during the year, a number of paid patients will be taken, who will have separate rooms. While the hospital is primarily designed for the use of members and pay patients, any injured person may be taken to it and treated the first time without charge.

Milwaukee, Wis., Hospital.—The erection of a new $6,500 rectory in connection with the Milwaukee Hospital was begun last week, and it is expected that the proposed new addition to the deaconesses' motherhouse, also on the hospital grounds, will be commenced this fall, both of these improvements being an indication of the policy of the hospital to extend its usefulness as rapidly as possible. Plans have been drawn which provide for an extension of twenty-two rooms to the motherhouse, but it is not expected to erect more than one wing at the present time. Residents of Milwaukee will not be asked to contribute toward the rectory, although the motherhouse addition will be built by their subscriptions.

Proceedings of Societies.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Meeting of November 9, 1904.

The President, Dr. ROLAND G. CURTIN, in the chair.

Fibroma of the Uterus Complicated by Disorders of the Heart and Kidneys; Uræmia Without Nephritis, from Tumor Pressure.—Dr. GEORGE ERETY SHOEMAKER, in a paper with this title, said that later observation of this class of growths had shown that the harmless tumor was comparatively rare, if the past, present, and future of the individual were considered. Some complications were caused by the tumor, others were aggravated by its presence. Salpingitis, peritonitis, intestinal obstruction, dystocia, diseases of the bladder, secondary anæmia, depression of the nervous system from starvation due to hæmorrhage, ascending kidney disease, dilatation of the heart from back pressure, and degeneration of the heart muscle might be mentioned. Questions of management in the relatively simple groups differed from those where serious diseases of other organs exist. The nicest consideration must be given to individual conditions. Patients having serious visceral lesions might be operated upon with advantage, if the presence of the tumor seriously exhausted the vitality or complicated the situation, provided a reasonable margin of safety could be shown. Careful preparation of the individual was then essential, possibly lasting for weeks. Surprisingly good results followed. Cases were given in which patients had recovered from hysterectomy, one showing mitral disease, another arteriosclerosis and valvular disease of the heart, and another profound uræmia without nephritis, due to ball valve pressure of an enormous movable tumor intermittently obstructing the ureters. Still another case showed serious heart weakness, etc.

Dr. JUDSON DALAND thought the paper interesting to the medical man as well as to the gynæcologist, in that the recurrence of hæmorrhage over a period of two years in one case showed the probable effect in the heart's action. The thing most apparent from the report was that even in those cases in which the conditions made an operation necessary there was no serious heart complication, showing that in a number of cardiac diseases, more or less serious, where abdominal section might be demanded, the operative procedure, coupled with anæsthesia, might be performed without serious hæmorrhage. He thought that, on the whole, the danger in such cases was less than had usually been supposed from previous studies of cardiac cases in relation to operation.

Dr. SHOEMAKER said that the examination of the whole patient was exceedingly important in these cases; otherwise, a very important condition might be overlooked. As an instance, he referred to a patient, sent into the hospital for hysterectomy, in whom the routine examination revealed consolidation of the left lung. The patient had given a history of no serious acute illness.

The Schott Method of Treating Diseases of the Heart and Blood Vessels.—Dr. JAMES M. ANDERS pointed out that confusion reigned in the minds of many physicians as to what constituted suitable cases for the Schott method of treating chronic cardiovascular affections. On the other hand, the Schott method, he believed, had not been so universally appreciated as it deserved. He emphasized the fact that, while a salubrious environment shared in the production of the beneficial effects from this mode of treatment, the principal factors were the methodical use of the saline baths and the "resistance exercises." The baths exerted a beneficial influence in various directions in cardiac insufficiency, and prominent among the salient results were a more vigorous systole, with diminution in the size of the dilated heart, and a reduction of the pulse rate. Especially noteworthy were the effects in impaired nutrition of the myocardium in consequence of a freer coronary circulation. He had seen all the usual evidences of an impaired circulation presented by the different organs, such as the lungs, liver, stomach, and kidneys, as well as the anasarca, promptly disappear under the influence of balneological therapy. Among the most notable effects of the baths was the distinct clinical evidence of arteriodilatation, as shown by the increase in the volume of the radial pulse. He laid stress upon the "resistance exercises," which formed an essential element of the treatment. These required a specially trained operator. Dr. Anders reported cases which were observed by himself while they were under treatment at Nauheim, through the courtesy of Professor T. Schott. He reported two cases of acute dilatation of the heart following chronic valvulitis, excited by overexercise, in which complete restoration of compensation was effected as the result of the Schott method of treatment. He also reported complete relief in two cases of chronic cardiac disease with the usual form of secondary dilatation. The method was found especially valuable in arteriosclerosis with embarrassed heart action, and the special effect of the Schott method was most gratifying in cases of angina pectoris. Finally, in that large group of cases in which circulatory disturbances arose from a neurasthenic condition, happy results might be expected from a judicious employment of this now recognized mode of treatment. The metabolic processes also had been favorably influenced to a remarkable extent. Dr. Anders stated the contraindications to the Schott method as follows: 1. Fever. 2. Advanced arteriosclerosis. 3. Far advanced myocarditis. 4. The closing stage of chronic vulvulitis, with extreme dilatation of the chambers. 5. Aneurysms of the aorta or its larger trunks, except in the incipient stage. 6. Any case in which the blood pressure was lowered by the balneological treatment. 7. Cases in which a tenometric figure as low as 65 or 60 mm. of mercury was found (Schott). 8. Cases in which chronic bronchitis and asthma were well marked (Baldwin).

Dr. James Tyson said he had limited himself to the home use of the Nauheim baths, because in this connection there was the greatest opportunity for their employment, the expense of a trip abroad and treatment at Nauheim being impossible to the majority of persons. He did not think a bath establishment was necessary, and he had used the treatment in private houses in the ordinary bath. A person was required to conduct the bathing as well as the exercises, although both might be done by the same individual. The baths, he believed, could be made very much simpler than the writings of W. Bezly Thorne would lead one to believe. Chloride of sodium and chloride of calcium were stated to be the two most important constituents. Five pounds of chloride of sodium and five ounces of chloride of calcium were put into the ordinary bath of about forty to fifty gallons of water. The course consisted usually of twenty-one baths, three of which were given in daily succession and then a day skipped. The proportions of sodium and calcium were increased until in the last five or six baths the water contained about ten pounds of the former and ten ounces of the latter. At home the carbonic acid element of the bath was secured by adding hydrochloric acid and bicarbonate of sodium. The cases that received the most benefit were those of cardiac weakness with dilatation, chronic dilatation brought about gradually as the loss of compensation was brought about in valvular cases, and also cases in which there had been musclar overexertion. Acute dilatation was best treated by rest in bed and the use of nitroglycerin, etc. In such a case, partially recovered, improvement might be completed admirably by the administration of the Nauheim bath at that stage. The baths should not be given in cases of œdema and general dropsy. Dr. Tyson thought the patient a pretty good guide regarding the continuance of the bath; if he did not feel well after three or four baths, it was a mistake to continue them. Better was it to put the patient to rest. The first bath he made five minutes in length, the second six or seven minutes, which time is increased to ten or fifteen minutes. Coincidentally with the increased duration of the bath the temperature was lowered. The temperature of 82° or 85° F., he said, was the lowest at which the baths were given at Nauheim.

Dr. Daland thought that the most important features of the treatment could be subdivided as follows: The baths and movements; change of climate; régime. The fact that a large number of people were doing the one thing at the same time, he thought, made it easy. In the home use of the bath he attached less value to the chloride of sodium and chloride of calcium than to the water and the variations in temperature. He thought all had got into the habit of using the resistance movements in combination with massage and of encouraging patients to make certain voluntary movements in cases of broken cardiac compensation. It was difficult to speak to the point, on account of the variation in the cardiac cases. The use of the method in angina pectoris he thought would be experimental. In dilatation of the heart with moderate sclerosis, in persons of middle age, he had found the treatment beneficial in some cases. Before instituting the treatment in such cases he determined the cardiac reaction by having the patient make a certain number of movements.

Dr. Solomon Solis Cohen referred to his demonstration before the society of the Schott treatment some eight years ago by the efficient aid of Dr. Charlotte West, and stated that Dr. West was available for the carrying out of the Schott resistance movements, as well as four other persons whom he had trained. He thought there was no difficulty in having the baths given at home, if the patient and physician were willing to take a little trouble in getting them started, after which intelligent patients could be entirely trusted to carry out the details. In preparing the bath, the plan which Dr. Cohen had adopted and which had the advantages of preventing the cooling of the water and injury to the tub, was to fill the tub half full of hot water, put in the brine and the bicarbonate of sodium, letting them remain for about twenty minutes, so that they were thoroughly disseminated throughout the whole mass of water, then add sufficient water, which might be cold or lukewarm, according to the temperature to which the original quantity of water had cooled, then put in the acid sulphate cakes upon the tin foil, and there would be a thorough effervescence. A valuable element in the treatment at Nauheim, Dr. Cohen believed, was the personality of Dr. Schott. His scientific spirit, his authoritative manner, his thorough mastery of routine and of detail, and the absolute obedience which he got from all the attendants count for a good deal. In the home treatment, Dr. Cohen's plan was to give the baths in a course of six or eight weeks, interrupting them for eight or ten or twelve weeks, and then again repeating them for two or three weeks, then again interrupting them, and again repeating. The best time to give them he considered to be at night, so that the patient might have several hours' continuous rest afterward. He gave the baths every other day or every third day, giving exercise on the alternate days, if exercise was to be given. Sometimes the baths could be followed by massage, the character of which would vary with the character of the lesion and the reaction of the patient. He confirmed Dr. Anders's statement of the value of the method in exophthalmic goître, but also stated that there was great danger in its employment in this condition. He would not trust patient or attendant to give the treatment in exophthalmic goître. In a few cases, he believed, it would do good if carefully applied and applied by the physician himself. In cases of arteriosclerosis, not too far advanced, he had seen very good results, also in angina pectoris, in mitral stenosis, and in mitral regurgitation. He differed with Dr. Daland concerning the resemblance between the effect of active exercise on the part of the patient and the gentle resistance movements of the Schott system. In the Schott system there was no muscular exercise on the part of the patient at all. The moment exertion was made the patient defeated the object of the treatment. The method was, he said, "*gentle* resistance." The benefit obtained was in the starting up of the peripheral muscular pump upon the vessels, so that the action of the natural rhythmical contraction of the muscles upon the vessels continued to assist the work of the heart. The carbon dioxide gave to the "skin heart" a much more active stimulation than could be secured from massage or electricity, though the principle was just the same, the diversion of the blood to the surface and the stimulation of the vasomotor reaction.

Dr. P. S. DONNELLAN said he had been glad to hear Dr. Anders refer to the Schott method of treatment, and not to the Nauheim baths. He believed it was the combination of the baths, the resistance exercises, the environment, and care in diet which contributed to the success of the Nauheim treatment. A good feature, he pointed out, was that the bath tub was sunk into the ground. He considered the resistance exercises a valuable addition to the treatment, in that they supplied a distinct element of cure in cardiac dilatation, arteriosclerosis, and some valvular conditions. He thought great care should be exercised in the selection of cases sent to Nauheim. He referred to the importance of the after-cure, which consisted in the patients being sent to the Black Forest or some portion of Switzerland to complete the cure after a period of six or eight weeks' treatment at Nauheim.

Dr. WILLIAM S. WADSWORTH referred to the physiological principles underlying all treatment. In regard to the effect of the various ingredients of the bath in the stimulation of the skin and the action on the sensory nerves, there was, he said, a very great additional effect, not mentioned, that on the skin itself. For example, on putting a piece of skin, alive or dead, into water, there were produced a certain amount of maceration and an entire change in the feeling of the skin. If the finger was kept in the water for half an hour, the sensations were entirely different from those encountered from the air. All, he said, knew the difference between the sea bath and the ordinary bath. Another factor in the bath, he pointed out, was the suspension of the body in a material which was of a certain specific gravity. Putting the body on a water bed, he considered, was also a very important factor. The changes of the specific gravity, he thought, would bear the closest clinical study and would give interesting results. In the resistance movements there was a series of valuable factors developed of a purely mechanical sort. On the chemical side there was another group, a chemical change taking place in the muscle itself. Certain substances were taken up, causing change of tone of the whole system. Fatigue stuffs were thrown out which had a distinct effect on every organ that came in contact with the blood.

Dr. J. MADISON TAYLOR emphasized the importance of the physician himself knowing enough about the question of exercise to direct a competent person to do the work. He thought much could be gained if men would take the trouble to study their cases thoroughly and watch them through from start to finish.

Dr. ANDERS said he was not convinced that the home treatment could be carried forward with much success. To have a suitable establishment in this country would require a specialist in heart diseases to make the treatment a special study, and this one should watch the patient daily, noting the effect of every bath and every application of the resistance movements.

The Influence of Hunger and Hæmorrhage on the Composition of the Blood Plasma.—Dr. THOMAS S. GITHENS, in a paper with this title, stated that by the addition of sodium sulphate to blood plasma it was possible to separate the proteid into four bodies: fibrinogen, euglobulin, pseudoglobulin, and serum albumin. He had performed two series of experiments to determine which of these bodies was nearest to the form in which proteid was assimilated. The first series showed as a result of repeated bleeding a rapid and steady decrease in the percentage of fibrinogen and a corresponding increase in the serum albumin. Starvation, on the contrary, showed a marked increase in the percentage of total globulin and a corresponding fall in the serum albumin; but after feeding the percentage of albumin rose promptly to normal. Both effects were best explained by the assumption that albumin stood nearest to the form in which proteid was absorbed, and therefore was replaced quickly from the food; while fibrinogen, being more specialized, was more difficult to replace. (The details of the experiments would be found in Vol. V of Hofmeister's *Beiträge.*)

On the Use of Methylene Blue in Malarial Fever.—Dr. HORATIO C. WOOD, JR., reported six cases of malarial disease which had been cured by the use of methylene blue. He had collected also from literature 425 cases, with 362 cures. Iwanoff had shown that methylene blue had a destructive action upon the adult malarial parasite, although it had but little influence upon the younger forms. Methylene blue might be given in malarial disease in doses of three grains every three hours for several days. The treatment should be kept up with small doses for a period of from two to three weeks. The unpleasant symptoms which had in many cases been associated with the use of this drug, the author thought, were perhaps due to the use of the dyestuff instead of the medicinal methylene blue. The latter was the chloride of tetramethylthionine. Methylene blue, it was stated, rivalled quinine in its antiperiodic effect, and had the advantage over the older drug of not causing the unpleasant by-symptoms commonly seen during the use of quinine.

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Dr. McNeny, a recent graduate of Columbia, has been appointed junior interne at the Jersey City Hospital. Dr. Haskins, the present house surgeon, completes his 18 months' service on December 1st, and will practise in Jersey City.

Book Notices.

A Textbook of Practical Therapeutics. With Especial Reference to the Application of Remedial Measures to Disease and Their Employment Upon a Rational Basis. By HOBART AMORY HARE, M. D., B. Sc., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia; Physician to the Jefferson Medical College Hospital, etc. Tenth Edition, Enlarged, Thoroughy Revised, and Largely Rewritten. Illustrated with 113 Engravings and 4 Colored Plates. Philadelphia and New York: Lea Brothers & Co., 1904. Pp. 908.

The appearance of the tenth edition of this work in fourteen years is sufficient evidence of its practical features, which were referred to in our notice of the first edition. The author has revised the work carefully, and that there might be no restriction on this, the entire book has been reset in new type. The old arrangement has been preserved, and the volume impresses us as thoroughly up to date.

Handbook of the Anatomy and Diseases of the Eye and Ear. For Students and Practitioners. By D. B. ST. JOHN ROOSA, M. D., LL. D., Professor of the Diseases of the Eye and Ear in the New York Post-Graduate Medical School; formerly President of the New York Academy of Medicine, etc., and A. EDWARD DAVIS, A. M., M. D., Professor of the Diseases of the Eye in the New York Post-Graduate Medical School; Fellow of the New York Academy of Medicine. Philadelphia: F. A. Davis Company, 1904. Pp. xiv, 297. (Cloth, $1.00.)

In the preface these authors say: "In the judgment of the writers, the undergraduate and the postgraduate both need manuals in their study of the eye and ear, but they need them in such a succinct form that in a very short space of time they can corroborate and amplify what they see in clinics and thus fasten it in their minds for ready use." Accordingly the anatomy and diseases of the eye have been condensed into 198 duodecimo pages of not over 32 lines each, and the anatomy and diseases of the ear into fewer than 100 similar pages. The authors have endeavored "to make an exact and reliable guide as to the principles of treatment of the diseases of the eye and ear and to the anatomy of these organs," but neither of them, we think, would rely on such a guide himself. Curt, epigrammatic sentences are not easily understood by persons unfamiliar with the subject under discussion, but, on the contrary, are apt to be misunderstood, and the omission of details, which are all-important in making a diagnosis, in treatment, and in the performance of an operation, renders every such small work an untrustworthy guide. In the judgment of the writer of this review, medical books are needed either as textbooks for the undergraduate or postgraduate student or as books of reference during the years of practice, and as the textbook of the student often becomes the reference book of later life, particularly when it deals with a specialty to which his attention is called only occasionally, the textbook should be as complete in detail as the reference book. When a book of reference is consulted, it is seldom to get a definition; it is usually to get help with regard to some particular case, and then accuracy and completeness are the two attributes demanded. This work belongs to a class which is far more useful to the teacher than to the student. The specialist who is teaching must prepare what he is about to say beforehand in order to obtain the best results, and to him this book will be almost a godsend. Its short sentences will suggest lines of thought which may be amplified greatly to his students' advantage, and he can thus prepare himself for his lectures with a considerable saving of time and labor.

The publisher's work has been well done, the type and paper are good, and the book forms an ornamental addition to the library.

Diseases of the Nose, Throat and Ear, and Their Accessory Cavities. By SETH SCOTT BISHOP, M. D., D. C. L., LL. D., Author of *The Ear and its Diseases;* Honorary President of the Faculty and Professor of the Diseases of the Nose, Throat and Ear in the Illinois Medical College, etc. Third Edition, Thoroughly Revised and Enlarged. Illustrated with 94 Colored Lithographs and 230 Additional Illustrations. Philadelphia: F. A. Davis Company, 1904. Pp. xxiii, 564. (Extra cloth, $4.00; sheep or half Russia, $5.00.)

The author has given this book a careful revision, as is shown by many of the chapters, which have been wholly or partly rewritten so as to include recent improvements and references to current literature. He has quite succeeded in his effort to make this edition thoroughly representative of the present status of this important field of medical practice, and to continue to merit the popularity that has been accorded the work.

BOOK AND MAGAZINE NOTES.

In a startling article on The Increase of Lawlessness in the United States, S. S. McClure, in *McClure's Magazine* for December, shows that the percentage of murders in this country is larger than in any other civilized nation, except Russia.

Facing this problem of prevailing lawlessness, he writes: "It is easy to generalize and to turn your back and say, 'I am an optimist,' or 'after all, this is the best country in the world. But a man is not necessarily an optimist who, if his house is on fire, refuses to look, and says, 'I am an optimist, I don't believe it's on fire after all.' Nor should we take all the credit for the enormous natural wealth of this great new continent—this wealth of soil and forest and mine that this people inherited in a day. We have the great task of digesting this enormous wealth, of making a great and law abiding people."

One striking feature of the table of contents of the December *Twentieth Century Home* is the number of people of high authority in various spheres of work who write on their special subjects for the magazine. This month we note Havelock Ellis, Spanish Dancing; Garrett P. Serviss, The Fairyland of Science; Harry Thurston Peck, For the Woman Who Reads; Dr. Watson L. Savage, Home Exercise for Growing Children; Dr. James H. Canfield, librarian of Columbia University, The World's Five Hundred Best Books; Mrs. N. M. Slater, Studies in Home Dressmaking; Rafford Pyke, Women as Economists.

BOOKS, PAMPHLETS, ETC., RECEIVED.

Mental Defectives. Their History, Treatment, and Training. By MARTIN W. BARR, M. D., Chief Physician, Pennsylvania Training School for Feeble Minded Children, Elwyn, Pa. Pp. 362. Illustrated by 53 Full Page Plates. Philadelphia, 1904: P. Blakiston's Son & Co. [$4.00 net.]

Poverty. By ROBERT HUNTER. Pp. xi-382. New York, 1904: The Macmillan Company. London, 1904: Macmillan & Co., Ltd. [$1.50 net.]

Arte de criar á los niños. Biblioteca para las Madres. (Nociones de Higiene Infantil). Por D. RAFAEL ULECIA Y CARDONA, Director del Primer Consultorio de niños de pecho, en Madrid; Director de la Revista de Medicina y Cirugia Prácticas, etc. Pp. 156. Madrid, 1904: Administración de la Revista de Medicina y Cirugia Prácticas.

A Method for Inoculating Animals with Precise Amounts. Hygienic Laboratory, Bulletin No. 19. October, 1904. By M. J. ROSENAU, Director of the Hygienic Laboratory. Treasury Department. Public Health and Marine Hospital Service of the United States. Pp. 9. Washington, 1904: Government Printing Office.

Miscellany.

Treatment of Acute and Chronic Nephritis With Some Remarks Concerning Edebohls's Operation.—Atkinson, in the *Maryland Medical Journal*, for November, 1904, describes the well recognized forms of acute and chronic Bright's disease and gives directions in regard to their treatment along medical lines. He also discusses the question of decapsulation of the kidney as a means of treatment. The theory advanced by Edebohls as to the mode by which improvement takes place after this operation has been performed is expressed in the following propositions:

1. There is a new formation of strong connective tissue or bands attaching the kidney to its surroundings.
2. There are in these tissues large and numerous bloodvessels which run between the kidney and adjacent structures.
3. There is a preponderance in number and size of newly formed arteries over newly formed veins.
4. The general direction of arteries is toward the kidney, and the adequate blood supply to the kidney established by this operation probably leads to the absorption of interstitial or intertubular, inflammatory products and exudates, thus freeing the tubules and glomeruli from compression, constriction, and distortion, and permitting in them a normal circulation.

An analysis of 120 cases in which the operation has been performed for various causes shows that in twenty-nine cases of floating kidney, with albuminuria and casts, nephropexy with or without decapsulation was followed by good results; in three cases of calculus and pyelonephritis, two patients were relieved and one died; one patient with renal sarcoma died; two with subacute glomerulonephritis were benefited; one with arteriosclerotic renal atrophy died within a year from the time of operation; of forty-three cases of chronic interstitial nephritis there were fourteen early cases out of which one patient died, ten patients were improved, two unimproved, and one made worse; of the twenty-nine late cases, twenty-two of the patients died; four were improved, two unimproved, and one made worse; of thirty-three cases of chronic parenchymatous nephritis, thirteen of the patients died; twelve were improved, and eight unimproved. The author does not think these statistics encouraging. He quotes several authorities on renal surgery who condemn the operation, and also states that experimental work on animals and necropsies on man have failed, except in a few instances, to confirm Edebohl's theory as to increased vascular supply.

Hall and Heixheimer reached the conclusion that from an anatomical standpoint decapsulation did not offer any advantage, as they never found any increase in vascularity at intervals of one to fifty days after operation. The improvement that has been observed has usually been in cases in which intracapsular tension was a marked symptom. Harrison, Israel, and Pausson believe that increased flow of urine, relief of nephritic pain and general improvement is due to the removal or splitting of the capsule whereby free expansion of the organ becomes possible.

At the Surgical Congress at Berlin in this present year the opinion was expressed by a number of surgeons that operative procedures on chronic interstitial nephritis, the latter stages of chronic parenchymatous, and chronic diffuse nephritis were unjustifiable and unscientific. The following conclusions were reached:

1. So far as results show Edebohls's operation is applicable only to a very limited number of cases of medical nephritis.
2. In chronic interstitial nephritis in late or contracted forms of parenchymatous or diffuse nephritis the results do not warrant operative procedures.
3. Edebohls's theory of revasculization of kidney substance by decapsulation has not been proved.
4. The best results have been obtained in movable kidney with albumin and casts.
5. Benefit and actual cure have been obtained in acute and early stages of chronic parenchymatous nephritis where pain was present and suppression of urine threatened the life of the patient.

An Analysis of One Hundred and Eighteen Cases of Lobar Pneumonia in Infancy.—Morse, in the *Archives of Pœdiatrics*, for September, 1904, summarizes his investigation as follows: Lobar pneumonia is more common and occurs with relatively greater frequency, compared with bronchopneumonia, than is generally supposed. It is often ushered in by vomiting, rarely by a convulsion. It usually begins with fever and cough, accompanied with drowsiness. An entire lobe was more frequently involved than a part of a lobe, and the left lower lobe was most frequently attacked. Next in frequency came the right upper and the right lower lobes. The portion involved was relatively the same in the fatal cases as in those which recovered, but the area was usually larger in the fatal cases. The average duration of the fever in cases in which recovery occurred was about eight days, shorter in the first than in the second year. The average duration of fever in the uncomplicated fatal cases was 12.8 days. The highest temperature was between 103° and 106° F., the number being about the same for each degree. The temperature fell by crisis in 68 8 per cent., crisis being less common in the first than in the second year. Collapse during crisis was unusual. Pseudocrisis was uncommon, but irregularity and remission in the temperature were not unusual. The mortality was lowest in cases in which the temperature did not exceed 103° F., and highest in those in which it exceeded 106° F.; the intermediate degrees had no apparent relation to mortality. A high temperature was no more fatal in the second than in the first year. The usual pulse rate was between 150 and 170; no case was fatal in which the pulse did not exceed 140. The usual respiratory rate was between 55 and 80, no case proving fatal in which respiration was below 55. The mortality, excluding death from empyema, was 23 per cent., being 32 per cent. in the first year and 18 in the second. Otitis media was a complication in 18 per cent. of the cases and empyema in 8 per cent. The prognosis of this disease in infancy varies with the age of the infant, and to a certain extent with the amount of lung tissue involved. The prognosis is good if the temperature does not exceed 103° F., and is bad if it exceeds 106° F. Variations between these points make little or no difference in the prognosis. The prognosis is good when the pulse does not go above 140, nor the respiration above 55; the amount of increase above these limits is of little importance.

Official News.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the period from November 19 to November 25, 1904:

Place.	Date.	Cases.	Deaths.
Smallpox—United States.			
California—Los Angeles	Nov. 6-12	1	
Illinois—Chicago	Nov. 13-19	21	2
Illinois—Danville	Nov. 13-19	1	
Illinois—Springfield	Nov. 13-19	1 imported from East St. Louis, Ill.	
Louisiana—New Orleans	Nov. 6-19	4	
Michigan—At 48 places	Nov. 13-19	Present.	
Missouri—St. Louis	Nov. 13-19	10	
New York—New York	Nov. 13-19	4	
Ohio—Toledo	Nov. 13-19	1	
Pennsylvania—Philadelphia	Nov. 13-19	2	
South Carolina—Georgetown	Nov. 16	2	
South Carolina—Greenville	Nov. 13-19	2	
South Dakota—Sioux Falls	Nov. 13-19	2	
Washington—Tacoma	Nov. 6-12	2	
Wisconsin—Milwaukee	Nov. 6-19	42	
Smallpox—Foreign.			
Brazil—Bahia	Oct. 15-29	43	2
Brazil—Rio de Janeiro	Oct. 9-23	578	183
China—Chefoo	Oct. 8-15	1	
China—Shanghai	Oct. 15		3
France—Paris	Oct. 30-Nov. 5	12	
Great Britain—Bristol	Oct. 30-Nov. 5	7	
Great Britain—Manchester	Oct. 30-Nov. 5	1	
Gt. Britain—Newcastle-on-Tyne	Oct. 30-Nov. 5	5	
Great Britain—Nottingham	Oct. 30-Nov. 5	2	
Italy—Palermo	Oct. 30-Nov. 5	16	2
Netherlands—Rotterdam	Oct. 30-Nov. 5	1	
Philippine Islands—Manila	Sept. 19-24	2	2
Spain—Barcelona	Oct. 21-31		15
Yellow Fever.			
Brazil—Para	Sept. 1-Oct. 20		16
Brazil—Rio de Janeiro	Oct. 9-23	2	
Ecuador—Guayaquil	Oct. 26		1
Mexico—Merida	Nov. 6-12	1	
Mexico—Texistepec	Nov. 6-12	21	4
Panama—Colon	Nov. 7	1 from Panama.	
Cholera.			
Egypt—Suez	Nov. 4	2 from Br. Ss. *Coulsdon*, from Java.	
India—Calcutta	Oct. 8-22		22
Russian Empire—Baku	Oct. 11-18	60	24
Russian Empire—Merv	1-7	1	
Plague.			
Africa—Cape Colony, Port Elizabeth	Oct. 13-19	1	
Brazil—Bahia	Oct. 15-Nov. 4		18
Brazil—Rio de Janeiro	Oct. 9-23	72	25
Chile—Iquique	Oct. 1-15	Present.	
India—Bombay	Oct. 19-25		63
India—Calcutta	Oct. 8-22		5
India—Karachi	Oct. 17-23	9	8
Peru—Callao	Oct. 1-15	3	
Peru—Lima	Oct. 1-15	5	
Straits Settlements—Singapore	Oct. 26-Nov. 8	1	1

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending November 26, 1904:

Ashford, B. K., Captain and Assistant Surgeon. Granted thirty days' leave of absence, to take effect about December 20, 1904.

Barron, Noel I., First Lieutenant and Assistant Surgeon. Died at Iloilo, P. I., October 20, 1904.

Borden, William C., Major and Surgeon. Appointed member of a board of officers to meet at the Army Medical Museum Building, Washington, November 29, 1904, for the examination of such officers of the Medical Department as may be ordered before it to determine their fitness for promotion.

Cox, Walter, First Lieutenant and Assistant Surgeon. Ordered to the Army Medical Museum Building, Washington, for examination for promotion.

Darnall, Carl R., Captain and Assistant Surgeon. Appointed a member of a board of officers to meet at the Army Medical Museum Building, Washington, November 29, 1904, for the examination of such officers of the Medical Department as may be ordered before it to determine their fitness for promotion.

Marrow, Charles E., First Lieutenant and Assistant Surgeon. Ordered to the Army Medical Museum Building, Washington, for examination for promotion.

Maus, Louis M., Lieutenant-Colonel and Deputy Surgeon-General. Leave of absence further extended twenty days.

McCaw, Walter D., Major and Surgeon. Appointed a member of a board of officers to meet at the Army Medical Museum Building, Washington, November 29, 1904, for the examination of such officers of the Medical Department as may be ordered before it to determine their fitness for promotion.

Mearns, E. A., Major and Surgeon. Granted thirty days' sick leave, with permission to apply for thirty days' extension.

Sweazey, Verge E., First Lieutenant and Assistant Surgeon. Granted two months' leave of absence.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending November 26, 1904:

Berryhill, T. A., Surgeon. Detached from the *Baltimore* and ordered to the *Oregon*.

Crandall, R. P., Surgeon. Detached from the *Oregon* and ordered to the *New Orleans*.

Diehl, Oliver, Surgeon. Detached from the *New Orleans* and ordered to the *Baltimore*.

Lando, M. E., Assistant Surgeon. Ordered to the Naval Hospital, Mare Island, Cal.

Nelson, H. T., Jr., Assistant Surgeon. Appointed an assistant surgeon, with the rank of lieutenant, junior grade, from November 14, 1904. Ordered to the Naval Hospital, Washington, D. C.

Winn, C. K., Acting Assistant Surgeon. Ordered to the Naval Hospital, Norfolk, Va.

Public Health and Marine Hospital Service:

List of Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the Public Health and Marine Hospital Service for the six days ending November 22, 1904:

Amesse, J. W., Assistant Surgeon. Granted leave of absence for fourteen days from January 2, 1905.

Carmichael, D. A., Surgeon. Bureau letter of September 21, 1904, granting Surgeon Carmichael leave of absence for one month from October 18, 1904, amended so that said leave shall be for twenty-eight days only.

Duke, B. F., Acting Assistant Surgeon. Granted leave of absence for twenty-five days from November 15th.

Ebersole, R. E., Assistant Surgeon. Granted leave of absence for fifteen days from November 19, 1904.

Frick, John, Acting Assistant Surgeon. Granted leave of absence for thirty days from December 1st.

Frissell, C. M., Acting Assistant Surgeon. Granted leave of absence for fifteen days from November 9th.

Goldberger, Joseph, Passed Assistant Surgeon. Granted leave of absence for five days from November 10, 1904, under paragraph 191 of the regulations.

Goldsborough, B. W., Acting Assistant Surgeon. Granted leave of absence for three days from November 26th.

Greene, J. B., Passed Assistant Surgeon. Granted leave of absence for four days from November 11, 1904, under paragraph 191 of the regulations.

Hanrath, F. R., Pharmacist. To report to Medical Officer in Command at Cleveland, Ohio, for temporary duty and assignment to quarters. November 22, 1904.

Hume, Lea, Acting Assistant Surgeon. Granted leave of absence for thirty days from November 7th.

Kimmet, W. A., Acting Assistant Surgeon. Granted leave of absence for fifteen days from November 16th.

Lumsden, L. L., Passed Assistant Surgeon. Granted leave of absence for one month and ten days from November 20th.

Miller, Charles, Pharmacist. Department letter of November 7, 1904, granting Pharmacist Miller leave of absence for fourteen days from November 10, 1904, amended to read fourteen days from November 15th.

Sibree, H. C., Acting Assistant Surgeon. Granted leave of absence for seven days from November 18th.

Southard, F. A., Pharmacist. Granted leave of absence for twenty-six days from November 20th.

Townsend, W., Acting Assistant Surgeon. Granted leave of absence for thirty days from December 15th.

White, J. H., Surgeon. Granted leave of absence for eight days from November 20th.

Births, Marriages, and Deaths.

Married.

Becker—Keefer.—In Sunbury, Pennsylvania, on Wednesday, November 23rd, Dr. Harvey Mayor Becker and Miss Maud Odelle Keefer.

Benson—Keenan.—In Baltimore, Maryland, on Monday, November 14th, Dr. Charles E. Benson and Miss Angelina T. Keenan.

Dashiell—Marine.—In Baltimore, Maryland, on Wednesday, November 23rd, Dr. Nicholas Leeke Dashiell and Miss Amelia Eleanor Marine.

Gore—Rouse.—In Baltimore, Maryland, on Wednesday, November 16th, Dr. Clarence Stillwell Gore and Miss Marie Louise Rouse.

Hamlen—Berckmans.—In New York, on Monday, November 21st, Dr. George Dempster Hamlen and Mrs. Estelle Louise Berckmans.

Kennedy—Byrne.—In Minneapolis Minnesota, on Wednesday, November 16th, Dr. William J. Kennedy and Miss Agnes Marion Byrne.

Pleadwell—Wallace.—In Washington, D. C., on Wednesday, November 23rd, Dr. Frank L. Pleadwell, United States Navy, and Miss Theodosia Wallace.

Quirk—MacAvoy.—In Philadelphia, Pennsylvania, on Tuesday, November 22nd, Dr. John Joseph Quirk and Miss Kathryn Regina MacAvoy.

Ranken—Day.—In Brooklyn, N. Y., on Wednesday, November 16th, Dr. John Francis Ranken and Miss Ellen Parker Day.

Sheets—Hagenstab.—In St. Louis, Missouri, on Wednesday, November 16th, Dr. Martin Edington Sheets and Miss Birdie Hagenstab.

Thompson—Bishop.—In New Haven, Connecticut, on Wednesday, November 16th, Mr. John Walcott Thompson and Miss May Lilian Bishop, daughter of Dr. and Mrs. Timothy H. Bishop.

Wylie—Mulford.—In Bayonne, New Jersey, on Wednesday, November 23rd, Dr. Robert Wylie and Miss Belle Mulford.

Died.

Alexander.—In Hermon, N. Y., on Saturday, November 12th, Dr. J. H. Alexander, in the eighty-first year of his age.

Bartholomew.—In Middletown, N. Y., on Friday, November 25th, Dr. Willis Bartholomew, in the forty-first year of his age.

Bond.—In Craig, Missouri, on Saturday, November 19th, Dr. J. A. Bond, in the forty-ninth year of his age.

Booth.—In Petersburg, Virginia, on Thursday, November 17th, Dr. J. E. Booth, in the thirty-second year of his age.

Cockey.—In Baltimore, Maryland, on Saturday, November 19th, Dr. Charles H. Cockey.

Conklin.—In Farmington, Illinois, on Tuesday, November 8th, Dr. T. C. Conklin.

Craddock.—In McLoud, Oklahoma, on Tuesday, November 15th, Dr. Charles H. Craddock.

Duckett.—In Bladensburg, Maryland, on Saturday, November 12th, Dr. Thomas Soter Duckett, in the ninetieth year of his age.

Koch.—In Indianapolis, Indiana, on Saturday, November 12th, Dr. Alcia Jane Howard Koch.

Lyman.—In Evanston, Indiana, on Monday, November 21st, Dr. Henry M. Lyman, in the seventieth year of his age.

Martin.—In Buffalo, N. Y., on Wednesday, November 23rd, Dr. Eugene Edward Martin, in the thirty-eighth year of his age.

McCord.—In Crofton, Kentucky, on Thursday, November 17th, Dr. W. E. McCord, in the sixty-eighth year of his age.

Minot.—In Boston, Massachusetts, on Wednesday, November 16th, Dr. John F. Minot.

Newsome.—In McLemoresville, Tennessee, on Thursday, November 17th, Dr. W. R. Newsome, in the seventy-fourth year of his age.

North.—In Brooklyn, N. Y., on Wednesday, November 23rd, Dr. Nelson L. North, in the seventy-fifth year of his age.

Reber.—In Bloomsburgh, Pennsylvania, on Friday, November 18th, Dr. William McClellan Reber, in the sixty-third year of his age.

Stevens.—In Baltimore, Maryland, on Saturday, November 19th, Dr. Edward T. Stevens, Sr., in the seventy-eighth year of his age.

Sutherland.—In Pittsburgh, Pennsylvania, on Saturday, November 12th, Dr. L. W. Sutherland, in the seventy-ninth year of his age.

Tripp.—In New York, on Tuesday, November 22nd, Dr. William J. Tripp, in the sixty-first year of his age.

Ullrich.—In Baltimore, Maryland, on Sunday, November 20th, Dr. Seth S. Ullrich, in the forty-seventh year of his age.

New York Medical Journal
AND
Philadelphia Medical Journal.

A Weekly Review of Medicine

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Original Communications.

A COMPARATIVE STUDY OF IDIOPATHIC EPILEPSY IN ANIMALS AND MAN.

By L. PIERCE CLARK, M. D.,
NEW YORK,
VISITING NEUROLOGIST TO THE RANDALL'S ISLAND HOSPITALS AND SCHOOLS; CONSULTING NEUROLOGIST TO THE MANHATTAN STATE HOSPITAL.

The references to epilepsy in animals in this short paper have been as a rule taken from medical sources only. The literature of veterinary medicine has not been consulted, in part because nervous disorders in general are vaguely treated, and also because functional nervous disorders, such as chorea, rabies, and epilepsy, are hardly ever described with that degree of completeness or accuracy, so as to aid much in a comparative study upon these disorders in the human subject. Most of the cases of epilepsy in animals in medical literature are reported by such well known epileptologists as Féré and Gélineau. Numerous allusions to epilepsy in this or that species of animal occur in the literature of epilepsy in man, in addition to cases separately published. A fairly complete or exhaustive monograph on comparative epilepsy in general, or on the disease in any given species or genus of animals, is yet to be written. Gélineau's short sketch on epilepsy in animals is suggestive as to the great interest which attaches to this subject, and the failure on the part of the profession to publish any pretentious work on comparative epilepsy is due doubtless to the superior degree of interest which has been manifested in experimental epilepsy. It does not admit of doubt, however, that in order to thoroughly understand the several phenomena of the latter, a careful study of acquired epilepsy in the species experimented upon needs to be made, more especially so, as greater interest is daily manifest in studies to determine the manner in which the fit generalizes itself in the cerebral cortex, and over what tracts the discharges travel to the muscular apparatus involved in the convulsion. It appears from Gélineau that there was a distinct tendency at one time to regard epilepsy as of a nature not entirely distinct from rabies, in that it might be derived from the poison of some animal. It is not at all improbable that even now many animals suffering from status epilepticus are destroyed as cases of status rabieticus, thus accounting in part for the great number of supposedly anomalous cases of rabies, dying without the characteristic lesions of the latter disease. The former association of the two diseases upon a basis of infection is seldom or never heard of at the present day, although equally fanciful hypotheses may be entertained. This is the more surprising, because at the present time the drift of opinion is in the direction of the toxic origin of epilepsy, the poison in the great majority of instances being believed to originate from within and not without. Naturally the distinction between idiopathic epilepsy and symptomatic epilepsy (epileptiform convulsions) was not understood in mediæval times and hence it was not difficult to believe that external poisons might be a common source of actual epilepsy. The modern revival of the idea in quackery is seen in terms such as epilepticide. Incidentally it should be mentioned that Bra found in 70 out of 100 cases the microorganism *microbe* he describes, and rabbits inoculated with his organism died in clonic convulsions. The number of the "neurococci," as he calls them, increased with an impending seizure and diminished again afterward, until none could be found during the intermission. In the early literature of epilepsy it is possible to find numerous inquiries in early childhood as to dog bites, cat bites and the like in epilepsy of early origin. It seems strange at the present day to think that scientific thoroughness in the past should have required inquiries of this sort, but the matter was considered in a quasi scientific manner even as late as 1880 by Gélineau himself. Inasmuch as many remedies given in excess are able to cause epileptic seizures, notably mercury, arsenic, lead, belladonna, camphor, hemlock, cocculus indicus, digitalis, aconite, etc., Gélineau suggests that possibly the bites and stings of animals may have an analogous effect, which, by continued propagation, could account for persistent epilepsy, a contention too fanciful for debate even.

It is interesting to note the occurrence of epilepsy and convulsions in animal experiments, by the aid of certain well known toxic agents. Joffrey[1] has recently tried the so called epileptogenous poisons upon dogs with especial regard to toxic equivalents; the substances experimented with were ethyl alcohol, furfurol, aldehyde, absinthe, morphine, urine. In the experiments upon 113 rabbits, one only had an attack of true epilepsy; four had generalized convulsions, but not accompanied by the attendant phenomena of epilepsy; eighty-three had localized convulsions; twenty-five had no convulsions. Similar results were obtained in experiments with dogs.

In the experiments with furfurol, one half the animals had epilepsy or general convulsions; a fourth had local convulsions, and the remainder nothing. With aldehyde, eight out of forty-five had epilepsy major; nine had generalized convulsions; seventeen, local convulsions, and the rest none. With absinthe, one out of ten had true epilepsy; two had general convulsions; four had local convulsions. With morphine, there were no details, but the drug is said to have more epileptogenous power than any other drug used in experimentation. Urine was shown to be able to cause genuine epilepsy in a small proportion of animals. It is thus seen that all animals appear to possess a varying susceptibility to epileptogenous drugs; however, in animals of the same age, weight, etc., the toxic coefficient (amount sufficient to kill) shows very little variability. It therefore follows that epilepsy is something more than a mere poisoning or exercise of the physiological action of drugs. No adequate explanation of the presence of any form of epilepsy, even that dependent upon organic lesion of the brain, can be made upon the presence of one factor; an excitant is as necessary as a predisposition, and vice versa.

Gélineau describes in detail two cases, one studied by de Laplaigne, the other by himself, in which it was urged that healthy human beings were made epileptic by drinking milk from epileptic cows; but the cases can hardly be considered in any other light than as coincidents. As soon as the suspicion had become aroused as to the nature of the attacks, the milk of healthy cows was substituted by de Laplaigne, and the convulsions ceased. His patient was an adult who lived on bread and milk for economic reasons. No mention is made of the exact character of the epilepsy, nor the permanency of a cure. Gélineau, however, did not see his case until the patient had become a confirmed epileptic of several years' standing. He could find no cause for the epilepsy in this case, except the use of milk from an epileptic cow. One can only add that Gélineau's search for the cause of the disease must have indeed been superficial, if no more apparent cause was found. The author does not seem to have been at all disturbed by the rather large percentage of idiopathic cases of unknown cause, where no beast of burden enters, even remotely, into the clinical picture.

It appears that the nearer animals have approached to man by domestication, the more they seem to be subject to the same diseases. This apparent fact may be explained in three ways: (1) the nearer to man the animal approaches in anatomical structure, such as the dog, cat, monkey, horse, etc., the nearer a comparison between normal and morbid function of the nervous system is possible; (2) being subjected approximately to the same condition of environment the same diseases result in animals and man; (3) finally, such animals being closely associated with man, normal and morbid acts are under close scrutiny. The presence of common parasites like hydatids and worms may cause convulsions equally in man and the lower animals. The initial phenomena of a convulsion vary with each animal. The dog whines and lies down in a corner, while oxen and cows exhibit spasms of the eyelids, and panting movements of the chest, before they fall. The horse stops short and lowers his ears, trembles all over, and shakes his head in convulsive jerks. The hoofs strike the ground convulsively and, if the fit does not end at that point with a subsequent period of automatic movements in attempts to overturn the vehicle to which the animal may be attached, or to run away, the horse falls heavily to the ground and strikes the latter with his head. The pig, sheep, and goat are frequently attacked with epilepsy. In some of these animals the convulsions are believed to depend upon the presence of tænia, but it must be admitted that the latter are often present without convulsions forming a part of the clinical picture. The reverse is also notably true. It is, therefore, doubtful, even in a remote degree, that tænia ever cause epilepsy oftener in animals than in man. The cat is notoriously subject to epilepsy, or to epileptic convulsions; it may be said to be a neuropathic animal. Rats, mice, shrews, and moles are all subject to epilepsy. These last live on a number of semipoisonous animals, such as lizards, snakes, etc., thus perhaps lending color to Gélineau's contention of extraneous poisons playing a major or minor rôle in the induction of epilepsy in animals, and in its supposed transmission to man. It is believed that the mole is more saturated with poisons of all sorts than any other animal. It is said that carnivorous birds and animals will not eat the mole, and that scavenger creatures will not touch its carcass. The bite of the mole is dangerous, as proved by young dogs which are often bitten by it. Epilepsy is not apparently more common in the mongoose, which is almost wholly carnivorous in diet; even when it is kept exclusively on a cobra diet, epilepsy does not appear inordinately common.

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[1] *Bulletin médical*, February 7, 1900.

A short abstract of some interesting cases of acquired epilepsy in animals, from medical literature, are given here:

> Féré[2] reports a case of epilepsy in an albino rabbit, an animal rarely attacked by epilepsy, which had 7 paroxysms of that disease and died as a result of a pulmonary affection, being already cachectic. Four types of seizure were noted: (1) general or major attacks, with or without a cry; rotation to the left side; tonic-clonic convulsions in dorsal decubitus; insensibility always present; micturition part of the time; pupils dilated; (2) attacks of stamping, the animal seated on its haunches, flexing and extending its paws, etc.; (3) chewing movements, the eyes starting, pupils dilated, etc.; (4) spasmodic elevation of the nostrils, repeated 7 or 8 times. The last two forms appeared to be variations of a common kind, and occurred while the animal was eating. The period of hebetude or stupor lasted but a few seconds, the animal then resuming its feeding.
>
> Levrat[3] cites the case of a dog, ten years old; previous health good, it suddenly developed epilepsy in August, 1840; there were ten attacks daily, leading to a change in the animal's disposition. He became stupid, would not obey, etc. Levrat, a well known veterinarian, was summoned, and advised that the dog be killed; it was therefore decided to poison him and he was given 4 grammes of hydrocyanic acid in 8 grammes of alcohol. The animal immediately fell in violent convulsions. Levrat then left, thinking that the dog would surely die; however, half an hour after receiving the poison, he was as well as ever. In a period of a number of weeks, the dog had no return of the epilepsy, and was in excellent general health. This observation was presented to the academy by Bouley. In discussion, Dupuy stated that he could not understand this case; very small doses of prussic acid kill a horse; he thought the drug must have become decomposed. Chevalier knew of cases in which old dogs had withstood large doses of hydrocyanic acid. Dubois said that this remedy had been used in human epileptics and had produced no benefit. Heller had used it in epilepsy with only transitory improvement; it is very disagreeable, and patients refused to take it.
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> Bassi[4] says that epilepsy is not of frequent occurrence in the horse, and may be either general or partial. The latter form is confounded with vertigo, from which it is distinct. Consciousness is retained in vertigo, when tonic-clonic convulsions are absent in the same affection. In spite of the rarity of epilepsy in the horse, the author has seen no less than 15 cases, including both general and partial; he is unable to add anything to the general fund of knowledge, but thinks his cases will be found of interest, and in the nine, most recently studied, he has noted a constant phenomenon. This phenomenon is cranial asymmetry. In the case of an epileptic stallion, which in 1876 fell from complete epilepsy every fifteen or twenty days, the right half of the cranium was found more developed than the left. Between 1876 and 1881, two cases were under observation, one complete and one incomplete. In both cases, there was asymmetry of the two parietal bones. In 1883, an old stallion with complete epilepsy exhibited the same asymmetry. Five others, seen between 1883 and the present time, also exhibited the same anomaly. When autopsies were held, the asymmetry was even more apparent than during life. The smaller lobe seemed to be compressed or atrophic. The microscope showed that the cells of the neuroglia were unduly in evidence on this side. Bassi states that asymmetry in the dog's skull was reported by Professor Siedamgrotsky in the *Sachs. Jahresb.*, 1872.
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> Bricon[5] cites the case of a young female cat, aged about one year, which was studied at the Bicêtre Hospital, in Bourneville's service. It had evident epilepsy with, at first, 5 daily attacks, which were typical (cry, clonic movements, tetanism, foam on lips). The attacks eventually became less common, and the animal grew, and apparently became pregnant. For the past six months the attacks had been very infrequent, but the cat ran about by day, and was not watched by night. Notwithstanding the increasing size of the animal, she had no confinement. Examined more closely, she was found to be dropsical; this state increased and the animal died of cyanosis. At the necropsy, the peritoneal cavity was found to be filled with fluid; no pregnancy; the pericardium and pleural sacs were also filled with liquid. The viscera were all sound, except the heart; this organ was enlarged, the ventricles hypertrophied, but the valves were normal. There were small, smooth, semilunar openings between the two ventricles; no attempt was made to trace

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[2] *Compt. rend. de la Soc. de biol.*, 1896, 422.

[3] Epilepsy in a dog and cured by hydrocyanic acid. *Bull. de l'Acad. de méd.*, 1841-2, VII, 112.

[4] Cranial Asymmetry in the Epileptic Horse. *Archivio di psichiatria*, etc., 1894, XV, 122.

[5] Epilepsy in a cat. *Progrès médical*, 1885, 2de série, t. 1-2, p. 148 (t. 1.)

any connection between this lesion and the epileptic attacks.

Lionville[6] reports a stable cat, aged eleven years, of good parentage, apparently always well herself, and very prolific. Two years before present time, as a result, perhaps, of trauma, she developed a large abscess at the right side of the neck, extending down over the chest. This abscess required treatment for six weeks and discharged pus. The spinal column was not implicated. About one year after the injury, certain crusts and excoriations remaining about the neck, she began to be seized with attacks of a nervous character, lasting about a minute each, which began with a cry, and consisted of a trembling over the entire body, clonic and tonic convulsions, and, when the attacks were of a severe type, a violent emission of urine. The cat then remained quiet for a few seconds, then rose up a little and licked her paws, looking about vaguely, and finally went about, as usual after her fits, to a particular place to lie down. These attacks, comparable in every way to those seen in the human species, became more and more frequent. The intervals at first were several weeks long, then became shorter, so that at times only a few days would elapse between attacks, of which there would be five or six daily. At times there would be nocturnal attacks. The author quotes Brown-Séquard's experiments on epileptogenous zones, developed after section of the cat's spinal cord.

Féré[7] reports the case of a cat, brought to him by a gardener. The animal was aged two and a half months. For the past three weeks whenever the animal scratched the left angle of its jaw with its hind foot, an epileptic attack had been produced. The attacks could also be called forth by scratching, or compression in the same locality, by the owner of the animal. When, in Féré's presence, the janitor pressed with his thumb over the special area, the four limbs were extended, the head was hyperextended and turned to the left, and the jaws locked firmly. Then the four limbs exhibited clonic convulsions, most marked in the left foreleg, the head undergoing rotary movements at the same time. After one and a half minutes or so the animal fell; it was unconscious; it had voided no urine, although this act had usually occurred. As a rule, stupor lasted but a few moments. The animal would then raise itself and walk off, to go to sleep as usual. The necropsy revealed nothing to account for these phenomena.

Professor Mayer, of Geneva, had a cat with an epileptogenous zone on its left haunch; when this was licked, or gnawed, the seizures occurred.

Féré[8] reports another case of a dog, a small harrier, eight years old, always healthy, until within a few months it had shown, as was believed, a tendency to lunacy. It would run forward precipitately, overturning chairs, etc., and would finally stop short and fall on one flank, and then fall at once into a deep sleep, lasting at least one or two hours. On awakening, it did not behave as if it had any memory of what had occurred. Later, it was observed that certain kinds of food, such as game, even in small quantity, appeared to provoke these attacks. Féré observed one of these fits as follows: the animal, which had been asleep, aroused herself, and, with haggard eyes, trotted off in the same direction and with the same speed, as usual. The attack then began by the animal falling suddenly. The tonic stage lasted thirty seconds, the clonic about three minutes, and the stertor over an hour. There was foam on the lips, and urine was voided, during the tonic stage. The animal could not be made to ingest bromides, and died as a result of one of these attacks. Numerous lumbricoid worms were found in the intestines, but nothing in the nervous centres.

Féré[9] notes the case of a bird which, on December 14th, had a convulsive attack in the right wing and foot which was succeeded by others, more and more intense, and these persisted into the next day, lasting all the forenoon. The attacks began by a rotation of the head; the right wing then began to flutter, and the right leg was affected soon after. The individual attacks lasted ten or fifteen seconds, the bird remaining giddy for a moment afterward, and then starting to walk. But, as it attempted this act, the right foot was seen to drag, and the bird traveled in a circle. When an obstacle was placed in its path it endeavored to fly over it, but its right wing was then seen to be quite helpless. The paralyzed leg appeared redder than normal. In other words, vasomotor paralysis was associated with postepileptic hemiplegia.

This paralysis of the right side lasted for four hours after the last convulsion. The bird died four days later. Necropsy revealed nothing to explain attacks.

Féré[10] cites the case of a cock, one year old, which had fought with a young turkey, which had wounded it in the head; it bled freely at the time, but there were no adhesions, scars, etc., found. Several months later convulsive attacks began; at the same time it had begun to assume a special attitude. Féré had the bird under observation for two or three months. Its neck was permanently twisted, so that the lower aspect of the head was directed upwards. During the convulsions the cock fell on its back and was unconscious. It uttered no cry, nor did it have any evacuations. The permanent twist in the neck was thought possibly to be due to a peduncular lesion, but the necropsy revealed nothing wrong, nor did it throw any light on any of the phenomena.

Féré[11] says that, as a rule, epileptic attacks in birds are not fatal. In the chicken in question the first convulsion appeared two and half days after hatching, the newly hatched animal dying on the following day.

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[6] Epileptic Cat, 11 years old, Epileptic About a Year, etc. *Comptes rendus des séances et mémoires de la Soc. de biol.* Fifth series, Vol. I, 1869-1870, p. 243.

[7] Spontaneous epileptogenous zone in a cat. *Compt. rend. de la Soc. de biol*, 1898, p. 698.

[8] Procursive Epilepsy in the Dog. *Compt. rend. de la Soc. de biol.*, 1896, p. 31.

[9] Hemiplegic Epilepsy in Birds. *Compt. rend. de la Soc. de biol.*, 1894, p. 837.

[10] Epileptiform Attacks in a Cock, starting from Wry Neck. *Compt. rend. de la Soc. de biol.*, 1896, p. 514.

[11] Note on a Chicken which died as a Result of an Epileptic Attack. *Compt. rend. de la Soc. de biol*, 1894, p. 616.

At first the convulsions began on the left side, and seemed to be confined to this locality. The beak was turned to the left, the wings were beaten, the feet were agitated simultaneously. In some attacks generalization followed—in others it did not. A profound stupor and complete immobility followed, lasting at first for fifteen or twenty minutes, but becoming progressively longer, up to an hour. At first the bird would eat in the intervals, but later it refused all nourishment. Subsequent attacks began like the earlier crises, but generalization became more rapid. The more violent attacks were inaugurated by a cry, and this was particularly acute in the attack which preceded death.

Necropsy.—The animal did not walk on its toes, but on the wrist joint, on account of the deformity of its claws. There were no further anomalies until the brain was exposed. A small tumor was then noted at the level of the rhomboidal sinus; it represented a cystic dilatation. It probably produced the serial attacks of epilepsy which destroyed the bird.

Féré[12] states that epilepsy exists in many species of animals (goat, horse, ox, pig, cat, rat, dog, etc.). Many kinds of birds are also affected by epilepsy, especially some of the parrot tribe. As far as the literature goes, epilepsy in the lower animals appears to be limited chiefly to the mammals. However, there are a few good accounts of epilepsy in birds. In 1873, Trasbot, in a treatise on the diseases of birds, described a case of epilepsy in a sparrow, while Friedberger and Trohner, in a similar work, translated into French in 1892, report a case of epilepsy in a chaffinch. To these two cases Féré is able to add a third, which occurred in a canary.

This bird was two and a half years old, and had been epileptic for six months, during which time it had ceased to sing. It was placed upon a solution of bromides (one and a half per cent.). At first its attacks continued as follows: The wings were first raised a little, the eyelids began to droop, the head rotated, while the neck was turned to the left; it then fell on its right side and agitated its wings and feet. The movements, which at first were rapid, gradually became slow, the whole cycle occupying thirty or forty seconds. The bird then rose and walked away, striking the ground with its beak as it went; it ate nothing at that time, and seemed to be totally unconscious. If pushed it did not seek to save itself by flight; it showed no fear when a cat or dog charged upon it. At the end of some two or three minutes it was able to fly. Between attacks the bird was very tame and allowed itself to be handled. After three weeks of treatment the attacks ceased, and the bird began to sing. It mated with a female, and a young bird was produced. At the end of a year, there had been no more attacks. Birds appear to take bromides readily and, doubtless, the lives of valuable creatures might be saved by the use of these salts.

REMARKS.

The first case of Féré's, of spontaneous epilepsy in a rabbit, is interesting from the standpoint of comparative pathology, and physiology as well. The variety of grand mal and petit mal epileptic attacks in the one case is quite comparable to that seen in many cases in the human subject. The cranial asymmetry noted in horses by Bassi is of interest in view of Roncoroni's work upon the same subject in man and its possible significance in epilepsy. The terminal neuroglial changes are too indefinitely described to determine whether this lesion is to be classed as the gliosis lesion of Chaslin, Féré, and Marinesco, as a lobar sclerosis of the brain, or as a congenital or acquired teratological defect, as seen in palsy lesions of infants, idiots, and imbeciles. The relationship between kidney disease and the heart defect, on the one hand, and the epileptiform attacks, on the other, is interesting in Bricon's case of epilepsy in a cat. A histocytological examination of the cerebral cortex would have been of greater interest. In Lionville's case of cat epilepsy, one is inclined to believe that the epilepsy was due to infection from the abscess. It may have been that the age materially increased the susceptibility in the case. Féré's case, showing a spontaneous epileptogenic zone in a cat, is of signal interest, as it is a close analogue to Brown-Séquard's experimentally induced epileptogenic zone cases. Féré's case of hemiplegic epilepsy in a bird, is comparable, in many respects, to my case about to be detailed. The attacks, noted December 14th, must have been in the nature of status epilepticus unilateralis, followed by exhaustion paralysis, as in the human type of the same affection. One is rather surprised that the necropsy shed no light on the ætiology in such a well marked case of Jacksonian epilepsy. The same author's case of epilepsy in a fighting cock, is comparable to many idiopathic epilepsies in the human subject where trauma would seem to be the cause of a gross lesion in the brain. Féré's cases, of a chicken, that died from Jacksonian epileptic attacks (probably status epilepticus), and in which a necropsy accounted for the disease, and the last one of epilepsy in birds, bear directly upon the clinico-pathological part of this report.

The following is a short clinical history of idiopathic epilepsy in a canary bird which presents some unique neurological features.

The case chanced under my observation, three years ago, for a period of seven months, from April 1st to the following November, the date of death in status epilepticus. The canary was a male, one year old, and was from a brood of four; the family and personal history were negative; no cause for the epilepsy was known. Typical idiopathic grand mal, of Jacksonian onset, and petit mal occurred irregularly every few days at the beginning of the observation period. A description of a mild grand mal attack, which was carefully observed on April 23d, is as follows: The bird gave an epileptic cry, and fell backward from the perch in severe, general, tonic spasm, which lasted about thirty seconds; it lay very still on its left side where it had fallen. A very short clonic spasm followed, during which the head extended decidedly to the left side, and the legs were fully extended. After the spasm the bird became violently automatic; it flew about the cage and dashed itself against the wires. After a few minutes of this sort of morbid activity, it lay quite still in the coma stage for six or seven seconds, then it began to peep, and stagger about the cage, still continuing its automatic, purposeless acts, such as feeding from the seed cup as though it were a water cup and vice versa, but it did not swallow any of the contents of either. After two minutes, the attack gradually wore off and the bird acted normally, although it appeared somewhat dazed and did not sing for the next few days. The following day, treatment was begun with a one per cent. solution of sodium bromide in the drinking water. Much improvement resulted during the next two weeks, the bird began to sing again and to behave in a normal manner. Inasmuch as the amount of bromide solution was not limited, bromism began to appear in the third week; the bird sat with its head under its wing with its feathers ruffled, and it appeared sleepy and stupid. The bromide solution was then reduced to one drink a day at noon, which seemed quite sufficient. While the attacks, during the next four months, occurred weekly, they were all of a very slight character, except those of July 24th, which were apparently induced by an accidental withdrawal of the bromides for a period of two weeks immediately preceding. These attacks, with the postconvulsive exhaustion paralysis, were as follows: The bird gave the epileptic cry and fell backward from the perch as before. The tonic spasm would last thirty seconds, the legs being drawn up so that the feet were under the wings; the bird lay on the left side, nearly on the back; the head was turned to the left; the whole left side was most strongly convulsed in the clonic phase, the legs were extended and the wings spread to their fullest extent, in fine tremor; then the spasm remitted, and finally intermitted. The left side ceased from spasm last. The eyelids were in rapid nictitation, and the mandibles were open and shut rapidly in clonic spasm. The bird dashed about the cage, as previously described, only more furiously, and, finally, lay as though dead on the bottom of the cage (coma stage). The entire duration of the attacks was four minutes. Four more identical seizures followed the first in the next twenty minutes. A rather prolonged stupor stage ensued after the last fit of the series. On the bird's attempting to walk, and climb the perch, the left leg could not be used; it was bluish cyanosed (vasomotor paralysis). This temporary paralysis lasted about half an hour. The paralytic phenomenon occurred frequently, after many attacks during September and October. It may be stated that when a bird extends the leg the toes are spread, but the converse was true in all the epileptic fits. The bromides were finally entirely withdrawn on October 1st, to note the outcome not possible in man. During October the attacks grew more severe and frequent, having a tendency to group themselves in series, heralding the status epilepticus. Thus, on October 15th, there were seven fits, the cry being omitted. On October 16th, there were thirteen attacks, the convulsions being more decided *on the right,* with a resultant temporary paralysis of the right leg and slight *drooping and fluttering of the right wing for a few minutes.* The paralysis in the right leg sometimes lasted for an hour or more. The bird soon became much exhausted by the frequent and severe attacks. He was no longer able to mount even the lowest perch, and sat on the bottom of the cage the greater part of the day, with the head under the wing, and ate only soft food. On October 22d, sodium bromide was begun again, to note the possible staying power of the drug after serial epilepsy. Attacks of dizziness occurred at times only. At rare intervals, a spasm in the right leg was present, followed by temporary paralysis. From October 25th until November 3d he had no attacks, gained steadily in strength, and was apparently normal once more. On November 3d, the bird was discovered in status epilepticus (see illustration); he was tilted a little backward, in the upright position, with the toes spread out for as broad a support as possible, and resting in part upon his tail; the head was in a regular rhythmical nodding; there was clonic spasm, every three seconds, accompanied by general fibrillary twitching of the entire body, and rapid snap of the mandibles at each clonic movement of the head. The rather constant movement of the body interfered with photography. Rapid exhaustion ensued; during the last few hours the right leg and wing were so weak that he lay on the right side in the status. The heart beat rapidly and violently at first, and finally weakened, as death approached. There was apparently considerable increase in body heat, although thermometric measurement was not made. The necropsy, ten minutes after death, showed an apparently normal brain in every respect; the calvarium was also normal in appearance. The specimen was placed in absolute alcohol for cytological study of the cortex.

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[12] Note on Epilepsy and Bromism in Birds. *Compt. rend. de la Soc. de biol.*, 1893, 9 S-V, p. 601.

Dr. L. P. Clark's case of epilepsy in a canary.

Dr. T. P. Prout's report on the microscopical study of the bird's cortex is as follows: For some unknown reason the tissues failed to thoroughly harden; sections, 12 and 14 micromillimetres in thickness, were, however, obtained. The microscopical picture, presented in general, is one of disorganization. There is complete chromatolysis of the cells throughout the brain mass, the individual cells are ragged, and the lines of demarcation, between cell body and nucleus, are difficult to determine. In some of the larger cells, a trace of chromatic substance still persists. Most of the smaller cells are simple granular masses, lacking distinct anatomical elements. Vacuolated masses of protoplasm, which appear to be the remains of nerve cells, are very frequent. There are no vascular changes. Slide preparations from the brain of a sparrow were made under the same technics for the purpose of comparison.

The case shows: (1) Apparent idiopathic epilepsy in a bird. Nearly all previously reported cases of animal epilepsy, and especially in the bird, where autopsy was made, proved to be Jacksonian, traumatic epilepsies; (2) postepileptic exhaustion paralysis, motor and vasomotor; (3) status epilepticus and death analogous, in many clinical respects, to that seen in man; (4) pathological findings in the cortex, similar to those in man (Clark and Prout).

62 West Fifty-eighth Street.

SUPERANNUATED TROLLEY CARS FOR CONSUMPTIVES.

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The discussion of the problem connoted in the term consumption has been widespread. Many articles on the care and treatment of sufferers from this disease, and on the methods for its prevention, have deservedly found place in medical literature. Dispensaries have been opened, camps and sanatoria have sprung up all over the world and many States in this country have appropriated large sums of money for the care of their consumptive poor. The campaign organized for the destruction of the tubercle bacillus is on in earnest; and many interested laymen are taking part in it. That there should be public interest in this matter is not surprising, since it has become known that every third or fourth adult dies of consumption. As every case of tuberculosis is contracted from another, it is the duty of every municipality to isolate those suffering from its ravages; to see that camps or homes for the consumptive should be built in the vicinity of every large city; and to take all possible measures for the prevention of the spread of the disease. A matter which may well come within the scope of municipal authority is the selection of a site, either inland or upon the coast, in which may be found climatic requisites regarding soil, atmospheric purity, etc., and upon which may be built either a sanatorium or some similar institution, as a camp, for consumptives. Good results have been obtained in low lying districts. So that, as regards a camp at least, the question of elevation is not important. It is in many cases necessary to consider the alternative of a camp, because of the expensiveness of large and durable buildings.

Pine Ridge Camp, in the State of Rhode Island, was started in June, 1903. An administration building, dining room, kitchen, several cabins, trolley cars, and twenty tents have been erected. The institution accommodates forty patients, and the cost of the entire plant has been about twenty-five hundred dollars, which was collected by contributions. Patients are asked to pay something toward their maintenance; consequently sums varying from one to five dollars are received, about sixty per cent. of the patients paying something for board. The cost per capita for running the entire institution is about $4.50. As many of the patients do not pay board, the deficiency is made up by contributions from the citizens of Providence.

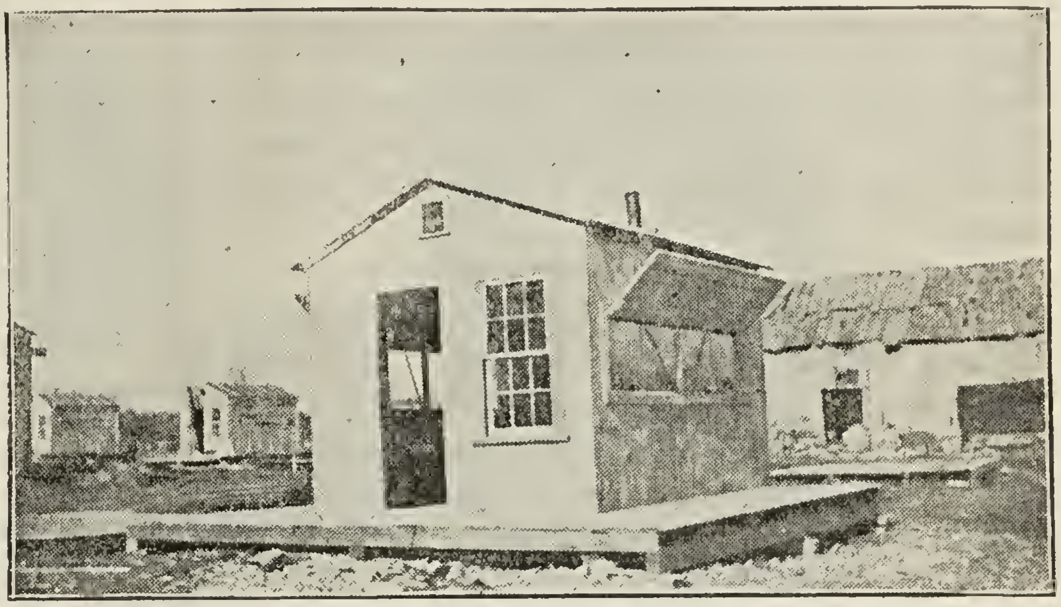
Fig. 2.—Cabin, costing six times the price of a car.

The experiment of using trolley cars that have outlived their usefulness on the city traction lines has been tried. The bodies of the cars, which were in excellent condition, were taken from their trucks and set up on a foundation eighteen inches from the ground, each being furnished with a cot, bed, stove, table, and chairs. They are thus made very cosy and comfortable. The trolley car is the ideal sleeping pavilion for the consumptive, capable of perfect ventilation and affording an abundance of sunshine. It is far ahead of the average cabin or shack, and the cost is much less. In the first

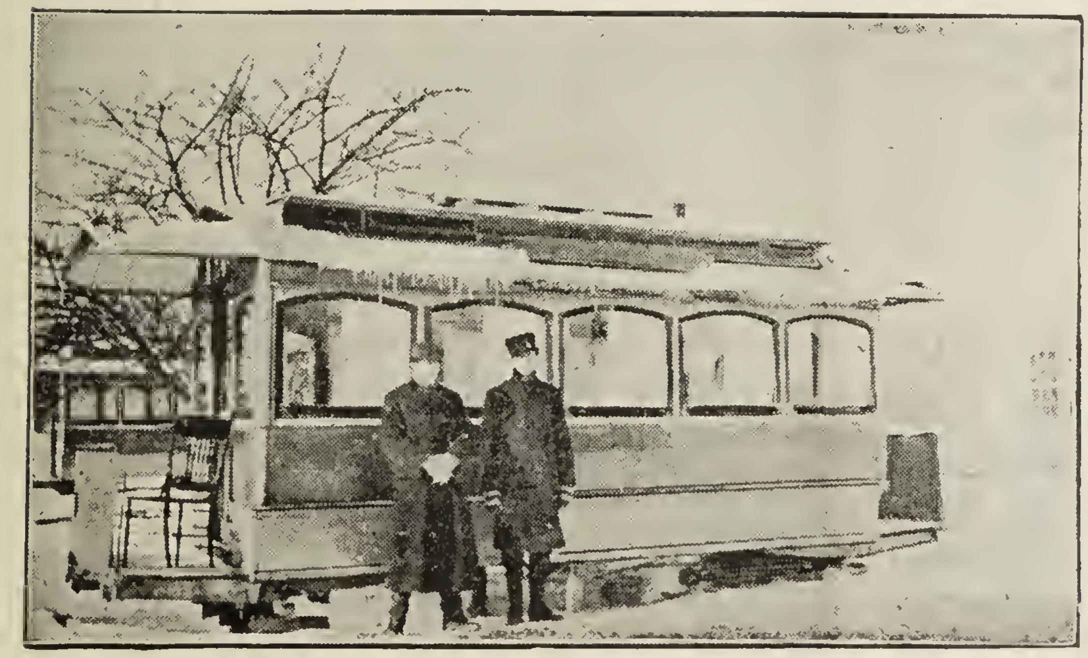
Fig. 1.—Trolley car as a pavilion for consumptives.

place the cars are very heavy, finished in hard wood, with window and door frames made to stand the severest weather. Cabins or shacks accommodating two patients, and built with double walls, with good roofs, etc., cost at least one hundred and fifty dollars each. From letters I have received from the traction companies of different cities throughout the United States, the average rate they receive for a discarded car is twenty-five dollars. I believe that the traction companies in many different cities would be glad to give their unused cars free to so worthy a charity as a consumptives' home, instead of selling them for night lunch wagons. By doing this they would assist materially in the fight against the disease. The Rhode Island Company, in the city of Providence, have donated cars to Pine Ridge Camp, with the promise of adding more when needed.

Many cities throughout the country are constantly discarding their old trolley cars and adding new ones. A camp, consisting of cars and cabins, could easily be erected on the outskirts of these places at very little expense; a farm house, containing a dining room and kitchen, could be utilized as an administration building; and about this house the cars and cabins could be placed. The expense of running a place of this kind, providing a certain percentage of the patients paid something toward their maintenance, would be small indeed. In this way every city could build its camp for consumptives at a cost comparatively trivial. A charity organization, assisted by a progressive physician, would have no trouble in raising the necessary funds. Contributions of cars could be secured from the car companies, cabins from individuals, and supplies of house furnishings from the merchants; money could also be raised by churches, societies, fairs, and theatres; and tracts could be printed and distributed, instructing the public on the dangers of infection and the care necessary for its prevention.

The citizens of Providence responded nobly to the appeals for funds when its camp was started; many another city might well do likewise for its unfortunates. It is certain that many lives might be saved, and that great good could thus be accomplished.

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Vaginal Cæsarean Section as a Substitute for Induction of Labor in Cases of Threatened Eclampsia or of Bright's Disease.—Bacon, in the *American Journal of Obstetrics*, for October, 1904, observes that indications for obstetrical interference in cases of eclamptogenic intoxication are furnished by both maternal and fœtal considerations. Those which are dependent upon the mother include not only danger of convulsions, but danger from the production of serious organic lesions in the liver, kidneys, brain, and heart. The chief symptoms are albuminuria, kidney casts, œdema, headache, nausea and vomiting, dyspnœa, deficiency in urea and in secretion of urine, and amaurosis. Important points in the history and phenomena of pregnancy are kidney disease, hydramnion, and twin pregnancy, and the effects of antieclamptic treatment. The most important element in prognosis is albuminuria. The number and variety of casts have an additional bearing upon the prognosis. Œdema may be due to cardiac, hepatic, renal, and blood conditions. Dyspnœa may be due to fluid in the thoracic cavity, or it may be a symptom of intoxication referable to the cardiovascular system. Headache, nausea, and vomiting may also indicate a toxic condition. A small quantity of urea, if without albuminuria and kidney disease, may not have much clinical significance. Albuminuric retinitis has no greater prognostic value, with reference to convulsions, than albuminuria without retinitis. An increase of retinal disturbance is, however, of importance with reference to vision, and is therefore an urgent indication for obstetrical interference. Hydramnion and twin pregnancy are factors in the causation of eclampsia and are of importance in prognosis. Œdema and albuminuria are of more significance with twin pregnancy or hydramnion than under ordinary conditions. If Bright's disease is present the symptoms of impending eclampsia acquire increased significance. The effects of treatment which is intended to eliminate the poison and combat its dangers must also be carefully observed. If the threatening symptoms are not lessened by appropriate treatment the question of obstetrical interference will become urgent. With respect to the fœtus, if it is born three or four weeks before the end of gestation it must have a better chance of life than if its kidneys, liver, and brain are exposed to the eclamptogenic poison for this additional period. It can also be removed more safely at this time than if delivered forcibly in a hasty operation during convulsions. If the kidneys are diseased life may be in danger from this source in addition to the dangers of pregnancy. If the uterus is to be emptied we must choose between induction of labor and Cæsarean section. The former is usually a slow process and the patient is exposed to the dangers of the eclamptic poison. If the indications as to mother and child are urgent rapid delivery by Cæsarean section may prove to be the preferable method. Whether abdominal or vaginal section should be preferred depends upon the presence or absence of obstruction to the delivery of the child through the pelvis. If the pelvis is ample Durhssen's method of vaginal section is to be preferred. Two cases are then narrated in which vaginal section was performed. In the first the mother recovered and the child lived a few hours. In the second the mother, who was suffering with pulmonary phthisis, died twenty-two days after the operation. The child survived.

THE ELECTIVE LINE OF RENAL INCISION.—THE NATURAL DIVISION OF THE KIDNEYS.—HYRTL'S EXSANGUINATED RENAL ZONE (ZONA EXSANGUINATA HYRTLII).

By BYRON ROBINSON, B. S., M. D.,
CHICAGO.

For some four years I have employed corrosive anatomy and the x ray to expose the condition of the circulation of the renal parenchyma, and the proximal extremity of the ureter (calices and pelvis). Perhaps 50 specimens of the kidney of man and animals were used. The object of the investigations was to locate the line of exploratory incision in the renal parenchyma, the calices, and pelvis which produces minimum hæmorrhage and maximum preservation of structures. The relation of vessels to the renal parenchyma, ureteral calices, and pelvis are sufficiently constant to be localized. The best method to prepare a demonstrative specimen of the circulation of the kidney and proximal ureter is to inject the ureter with yellow wax (or paraffin). The ramus dorsalis renalis should be injected with celloidin colored with red sulphide of mercury. The trunk of the arteria renalis, including its ramus renalis ventralis only, should be injected with blue colored celloidin, after which the specimen should be corroded in HNO^3 or HCl (60 per cent.) for, say, 10 days, and later digested with pepsin in a broad oven (100° F.) for several days. Such a specimen will present (1), the smaller dorsal renal vascular blade (red); (2), the larger ventral renal vascular blade (blue); (3), the calices and pelvis, supplied by the arteriæ nutrientes pelvis et calicum (red and blue); (4), the pelvis and calices, supplied by the ateria pelviureterica (red or blue). The specimen will also present brilliantly at the borders of the red and blue renal vascular blades, the elective line of renal incision or Hyrtl's exsanguinated renal zone.

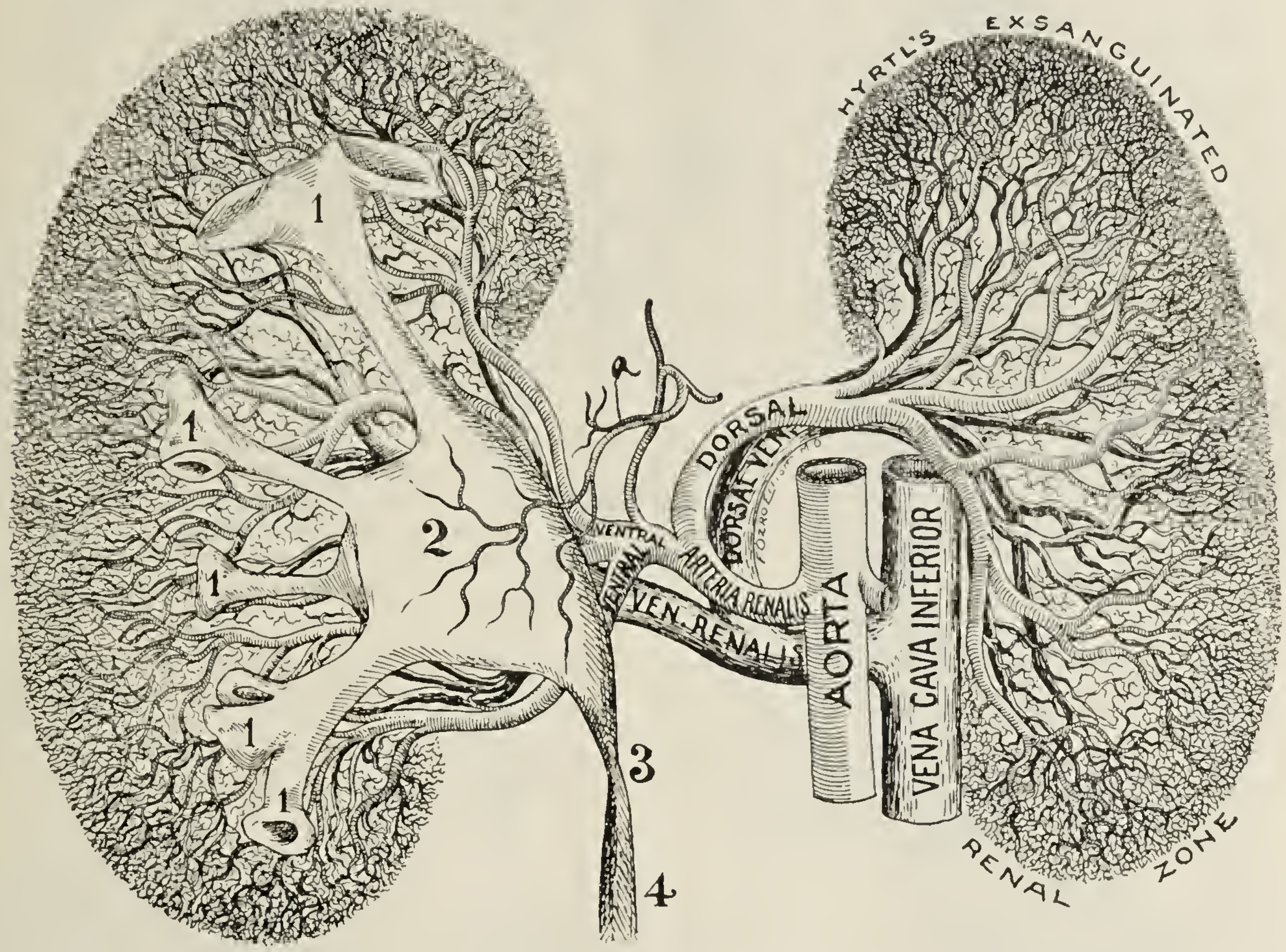

FIG. 1. LEFT KIDNEY, DORSAL VIEW.—Hyrtl's exsanguinated renal zone. Man, forty-six years old. Illustrates (life size) the double circulation of kidney, and the separation of the dorsal and ventral vascular blades. I injected the ureter proper, ureteral pelvis and calices with melted paraffin, while the arteria renalis was injected with celloidin. The renal parenchyma and other tissues were corroded with HNO_3 for about twenty-five days. The ventral and dorsal primary renal blades were forced apart, as their peripheries do not anastomose. The ureteral pelvis (2) and ureteral calices (1-1) lie in the ventral vascular renal blade like a picture in a book. The dorsal renal vascular blade is the smaller. 3. Proximal ureteral isthmus. 4. Lumbar spindle. *a*. Arteria pelvis ureterica. The arteria nutriens pelvis is not shown.

NATURAL DIVISION OF THE KIDNEY.

If the ureter is injected with wax, the arteria renalis with celloidin, and the tissue corroded with acid, the wax structure remaining will present two vascular blades, having the shape of a closed oyster or clam shell, with the pelvis and calices inclosed. The ramus renalis dorsalis forms the smaller dorsal vascular blade, and the ramus renalis ventralis the larger ventral vascular blade. These two renal vascular blades may be laid open like a book with the calices and pelvis appearing like a picture on one of its pages. The peripheries of the dorsal and ventral renal arterial branches do not anastomose.

The fine, rich, vascular, renal peripheries come in contact, but no vessels of the dorsal renal segment anastomose with those of the ventral segment. The demarcation line, the natural vascular division of the renal segments lying between the periphery of the dorsal and ventral vascular blade, is a narrow curved zone or line, not one with a zigzag course. This zone I shall endow with the eponym, in honor of its discoverer (1869), Hyrtl's exsanguinated renal zone. It is practically the vascular kidney equator located between the smaller dorsal, and larger ventral, renal parenchymatous segments. This zone marks the natural division of the kidney as regards its vascularization. It is the elective line of exploratory renal incision with minimum hæmorrhage. To attack surgically the ureteral calices and ureteral pelvis with the scalpel, the renal cortical incision should be made at the junction of the periphery of the dorsal and ventral renal arterial blades, i. e., in the exsanguinated renal zone of Hyrtl, one half inch dorsal to the lateral longitudinal renal border. A knowledge of Hyrtl's exsanguinated renal zone may, under certain renal conditions, as trauma, hæmorrhage, etc., enable the surgeon to preserve the dorsal or ventral parenchymatous segment by ligation of the ramus renalis dorsalis or ramus renalis ventralis.

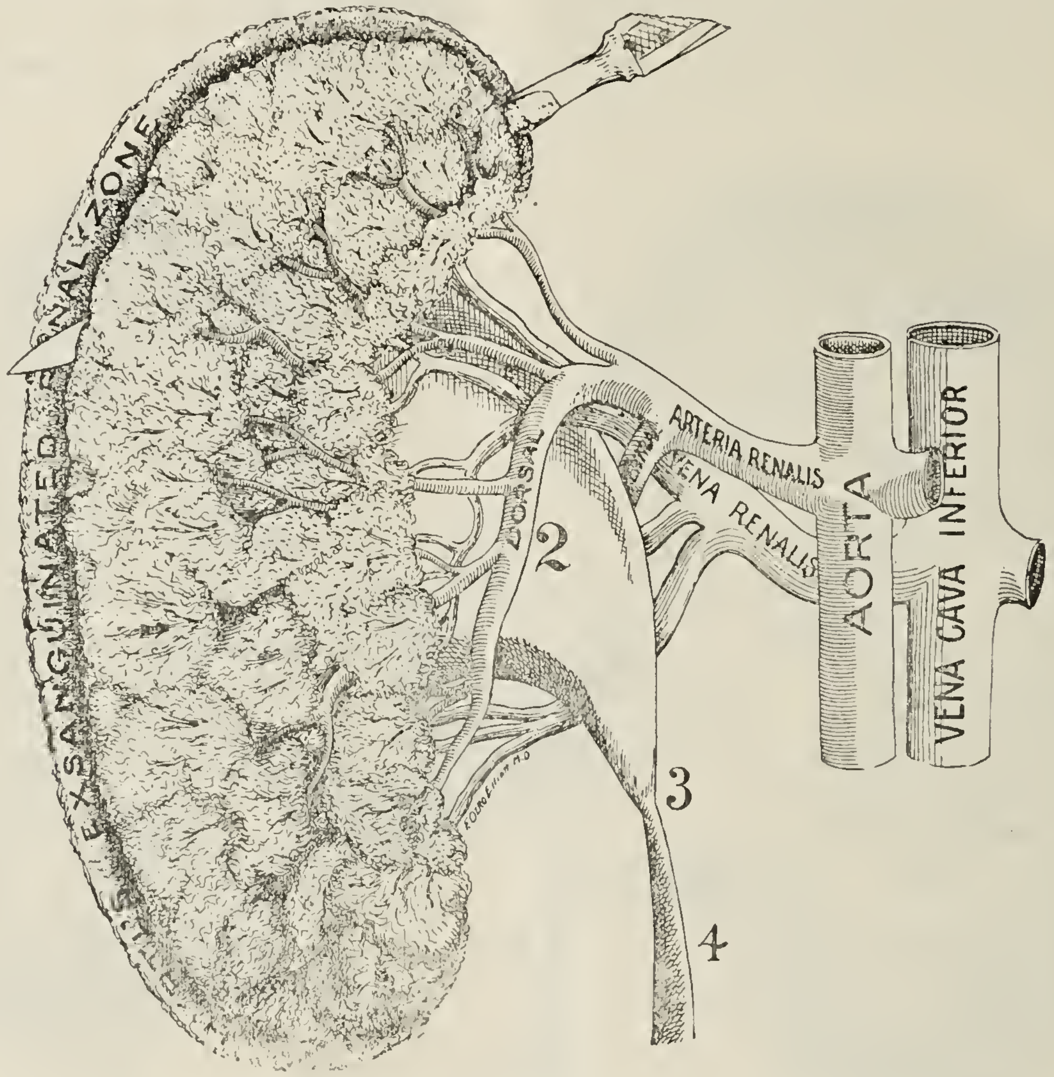

FIG. 2, LEFT KIDNEY, DORSAL VIEW.—Illustrates the double circulation of the kidney, life size, with a scalpel, S, incising Hyrtl's exsanguinated renal zone. It is the left kidney of a man sixty-six years old. The ureter was injected with melted paraffin, while the vasa renalia were injected with celloidin. The specimen was corroded in diluted HNO_3 for about three weeks, whence being washed it had the appearance of a sponge; the glomeruli make the sponge-like appearance. Hyrtl's exsanguinated renal zone was definitely demonstrated by separating the non-anastomosed periphery of the dorsal and renal vascular blades. 2, is the ureteral pelvis, and 3, the proximal ureteral isthmus; 4, lumbar spindle. The renal incision should be executed as indicated, the scalpel in cut one half inch dorsal to the lateral longitudinal renal border for minimal hæmorrhage. The capsular arteries in Figs. 1 and 2 are partially repaired from several corrosive specimens. Observe that the dorsal surface of the ureteral pelvis is quite free from vessels, fortunate in ureteral surgery. The ventral surface of the ureteral pelvis is richly vascular. Hyrtl's exsanguinated renal zone is quite regular in this corroded specimen. However, by injecting blue colored celloidin in the dorsal renal artery and red colored celloiidn in the ventral renal artery, Hyrtl's exsanguinated renal zone is frequently found irregular, zigzag. I have termed the bloodless renal area "Hyrtl's exsanguinated renal zone" in honor of Dr. Joseph Hyrtl, professor of anatomy in Vienna, who discovered it in 1869.

LOCATION OF HYRTL'S EXSANGUINATED RENAL ZONE.

Since the ventral primary renal arterial branch is larger than that of the dorsal, it nourishes more renal parenchyma; hence Hyrtl's exsanguinated renal zone is not exactly in the equator of the kidney, but is located in the segment of the kidney possessing the smaller arterial branch, which is the dorsal segment. This deviation of the demarcation line (Hyrtl's exsanguinated renal zone), between the periphery of the renal vascular blades, from the renal equator is about half of an inch. Hence the exsanguinated renal zone is not an exact renal equator, but cuts the renal equator as an ecliptic, at an acute angle. It is fortunate for renal surgery

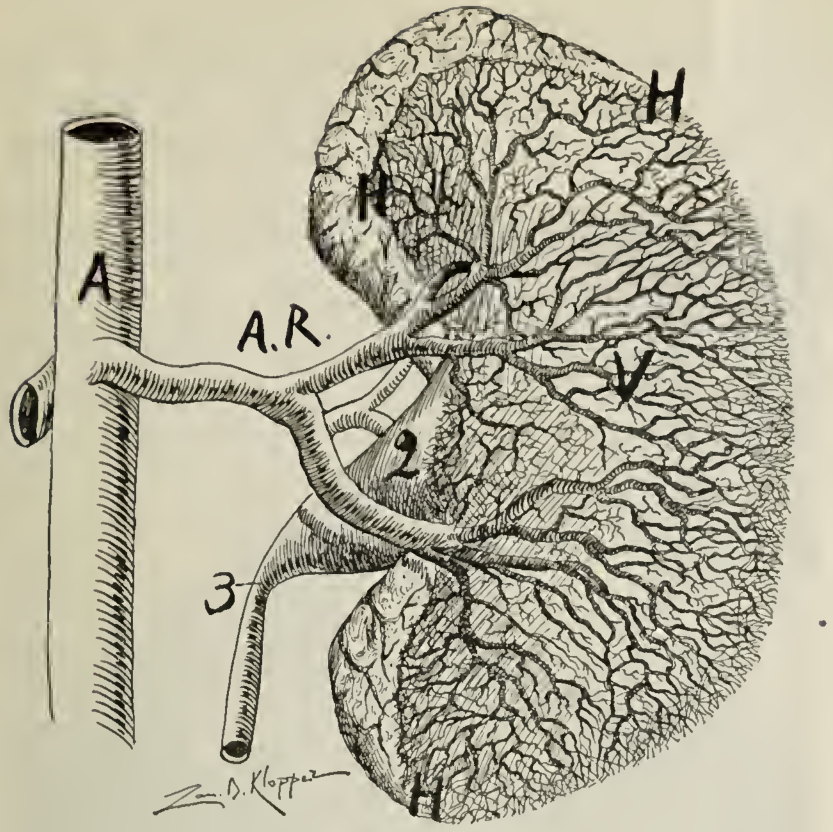

FIG. 3, LEFT KIDNEY, VENTRAL VIEW (V).—From man about forty-five years of age. The ureter was injected with yellow wax. The ramus dorsalis renalis was injected with celloidin colored with red sulphide of mercury. The trunk of the arteria renalis, including the ramus ventralis renalis was injected with uncolored celloidin. The tissues were corroded in HNO_3 for two weeks. A. R., Arteria renalis sinistra. 2, ureteral pelvis. 3, proximal ureteral isthmus. H, H, H, indicates Hyrtl's exsanguinated renal zone. It may be noted on the ventral renal surface that the renal dorsal vascular blade overlaps or invades the ventral vascular blade at the proximal and distal renal poles.

that the dorsal ureteral pelvis is inclosed by fewer arteries than that of the ventral. Corrosive anatomy demonstrates that the branches of the arteria renalis do not anastomose, even in the capillary system, nor at their distal peripheral border. In the parenchyma of the lungs, liver, spleen, mammæ, and all glands, is found this same anatomical arrangement of non-anastomosis, the uterus alone being an exception to this rule. The end arteries of the tractus genitalis anastomose solidly with their fellows in the opposite bilateral segments, forming what I have designated the central longitudinal oligæmic uterine zone (zona uterina centralis longitudinalis oligæmica). This oligæmic uterine zone has a minimum number of vessels and a minimum blood supply, but cannot, like the corresponding zone in the kidney, be truly designated as an exsanguinated or non-vascular zone. To the immortal Dr. Joseph Hyrtl, the celebrated Viennese anatomist, is due the credit of this discovery. I have found in surgical practice that, if the kidney is incised one half inch to the dorsal side of the longitudinal lateral renal border, the hæmorrhage is less than in any other possible incision. The renal incision should be executed in the middle of the kidney, not at the poles.

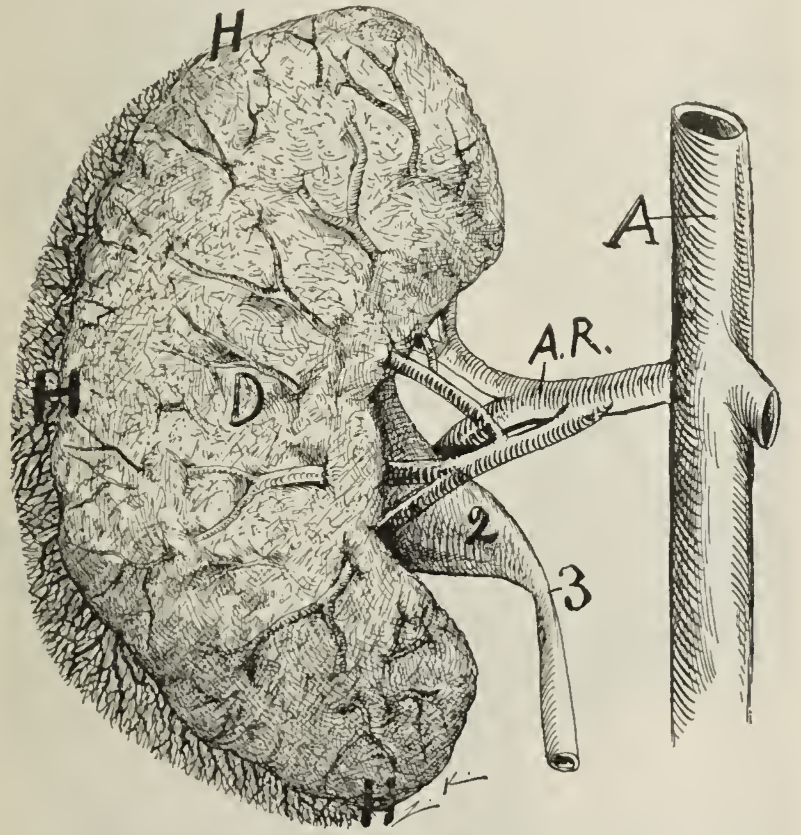

FIG. 4, LEFT KIDNEY, DORSAL SURFACE (D), of Fig. 3.—H, H, H indicates Hyrtl's exsanguinated renal zone, or the elective line of incision, one half inch dorsal to the lateral longitudinal renal border. Observe that the elective line passes to or invades the ventral renal vascular blade at the proximal and distal poles.

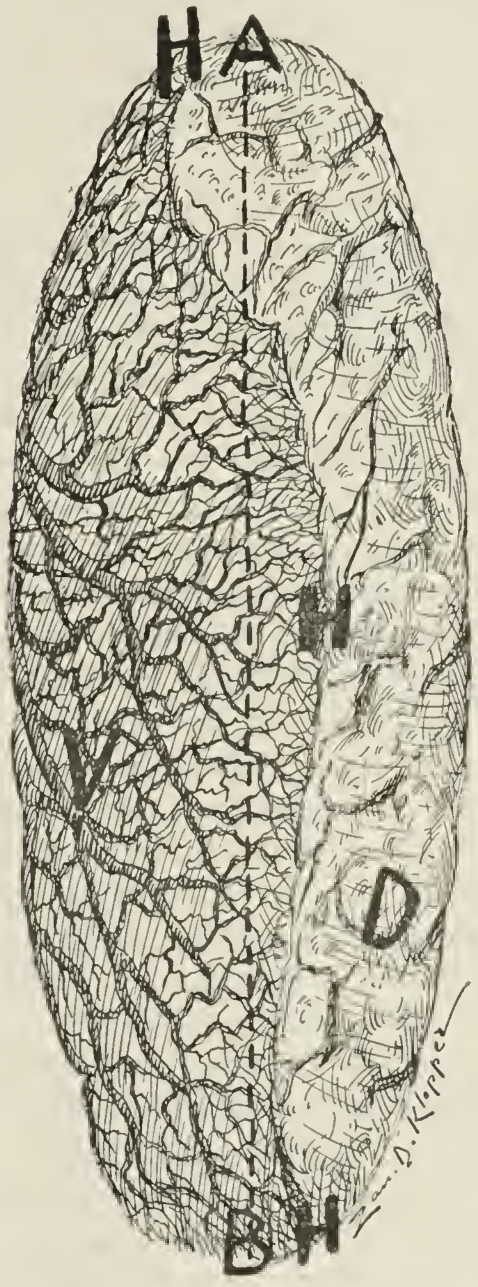

FIG. 5, LEFT KIDNEY, LATERAL LONGITUDINAL BORDER.—It is from the same corrosion specimen as Figs. 3 and 4. A, B, equatorial line of lateral longitudinal renal border. D, dorsal surface; V, ventral surface; H, H, H indicates Hyrtl's exsanguinated renal zone, or the elective line of renal incision, located one half inch dorsal to the lateral longitudinal renal border.

MY METHOD OF DEALING WITH CIRCUMRECTAL INFECTIONS; CASE REPORTS AND ILLUSTRATIONS.*

By J. L. JELKS, M. D.,

MEMPHIS, TENN.

In October, 1900, I made a plea for a more formidable and thorough method of dealing with circumrectal infections. This paper was presented to the Mississippi Valley Medical Association at Asheville, and no doubt some of you are familiar with the ideas advanced, though I shall quote freely from that paper.

"The neglectful or improper treatment of circumrectal abscesses, whether of the so called ischiorectal variety, or those situated in a different anatomical relation to the rectum, have, within the scope of my clinical experience, resulted in a great deal of unnecessary suffering. No circumrectal abscess need result in a fistula, except, perhaps, a few of those which are the result of cancer, tuberculosis, or syphilis. In fact, then, not to the abscess *per se* can this be the result, but to the degeneration of the tissues involved. The pus infection here becomes a concomitant and complicating process in the case, the gravity of which depends upon the extent and character of the infection, the vitality of the tissues, and the physical resistance of the subject. Even in many of those which are the result of tuberculosis and syphilis, we can restore the parts to health by early and timely treatment. I have treated a number of abscesses in this region during the past few years and, with one exception, the result has been early and complete recovery; therefore the statistics of various authors have led me to believe that the technique which I have practised is responsible, at least in a measure, for those results. The chief fault to be found in the simple incision and drainage of these abscesses is that their walls are not gotten rid of; hence Nature is unable to throw off this barrier to general infection, as when the abscesses are located in some other part of the body. As I have observed in many cases, these walls become calloused and all efforts to establish granulations are futile. As it is necessary to get rid of this structure, I have for this purpose found no instrument more serviceable than the sharp irrigating uterine curette.

"General anæsthesia is essential, except in cases of small superficial abscesses, in which latter, local anæsthesia may be relied upon. I have never used spinal cocainization for this purpose.

"As soon as I am able to elicit fluctuation, and I dislike poulticing to accomplish this end, I open freely, down to the bottom of the abscess, parallel with the rectum and usually transverse to the folds. I make my incision very wide, as indicated in illustration, Fig. 3; the abscess representing the apex of the cone. I then irrigate with a formalin solution, through an irrigating curette, until the fluid comes away clear, thus making sure that I will not infect healthy tissues, I fearlessly curette away all the abscess walls, thereby con-

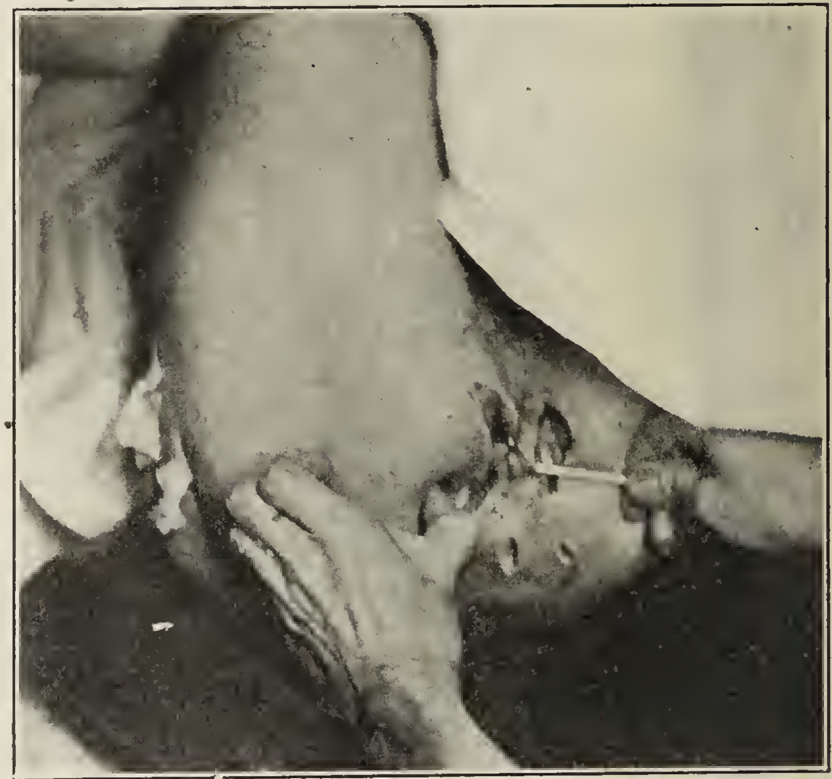

FIG. 1.—Photo one week after operation, showing large cavities over right hip and in circumrectal spaces.

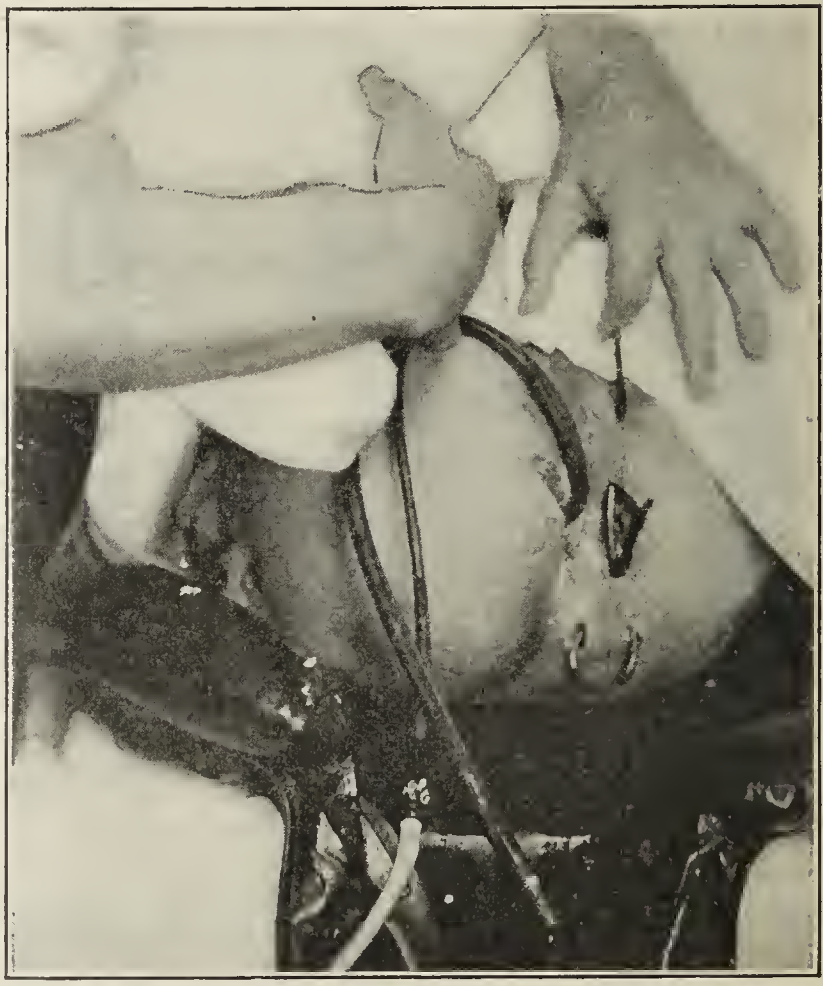

FIG. 2.—Photo one week after operation, showing cavity in left inguinal region and the communicating sinuses. Also method of irrigation.

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* Read by title before the American Proctological Society, June 8, 1904.

verting the cavity into a surgical wound, pure and simple. The rectum is thoroughly dilated and washed clean with formalin solution, any ulcers are cauterized, and hæmorrhoids removed. The cavity is then packed with iodoform gauze. On the second day after operation, a weak solution of formalin is used, and every day thereafter, in irrigating these cavities. The cavity is packed after the second day with gauze saturated in balsam of Peru, castor oil, and icthyol. Various authors have advised the use of such agents as bichloride of mercury, carbolic acid, and dioxygen in irrigating these cavities, but in my hands they have all proved defective and objectionable. Since using formalin solution in irrigating, I have, in the treatment of them, seldom noticed suppuration. Carbolic acid added to this solution prevents in a great measure the painful effect of the formalin."

Should large cavities remain unfilled after repeated curetting, these cavities may be closed with twenty day catgut, as in a case I beg leave to report; which case also illustrates the folly of the old method of simply incising these abscesses, while with persistent, painstaking endeavors, patients that seemed destined to any but a good termination may finally be restored to health.

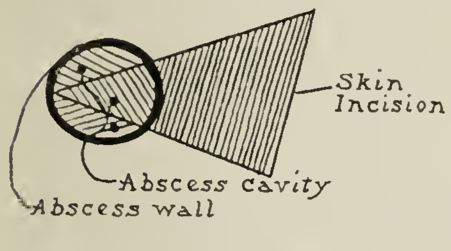

FIG. 3.—Operation (diagrammatical)

In July, 1903, Mr. B. was brought to me from a neighboring city to be operated on for circumrectal infection. He gave a history of having been operated on in Hot Springs, Ark., a few weeks previously for a circumrectal abscess. The operation consisted of a "puncture from within the bowel to liberate the pus." Upon arriving at the hospital I found large accumulations of pus on both sides and posterior to the rectum, with communicating sinuses in the inguinal region on the left side, and over the hip on the right side; the latter ending in a pocket over the hip joint, that contained perhaps a pint of pus, Fig. 1. On the right side of the rectum, was a cavity that I could almost put my fist into, while, on the left side, was a smaller cavity which, when opened, would admit four fingers of the opened hand. His temperature ranged from 100° to 105.5° F., and his pulse from 130 to 150. He was having repeated rigors and sweats, and was in a desperate condition.

Fig. 2. He was put on the table and every cavity opened wide and every sinus followed to its depth, and, while formalin irrigation was continued, every particle of tissue which seemed either necrotic or the result of necrosis, was removed with the curette, thereby converting these cavities into extensive surgical wounds. Saline transfusion and stimulants brought about reaction satisfactorily, and the wounds were packed on the second day, and every day thereafter, until granulations were well established; in fact, then, almost every day, while fæcal soiling often necessitated more frequent dressing of the incisions and cavities in the immediate neighborhood of the rectum.

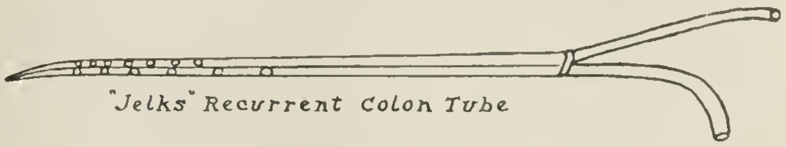

FIG. 4.—Jelks's recurrent tube.

Microscopic examination verified my clinical diagnosis of tuberculous pelvic infection. For five months, these cavities were treated and, when the granulations were exhausted, the curette refreshed the walls and gave a new start to the granulation process, when, finally, all the cavities were healed, except the one on the right side, which was now the size of a goose egg, and communicated by incision with the rectum. The incision divided both sphincters and the distal three and a half inches of the rectal wall. The roof of this cavity was the levator muscle, and the walls were of a firm, fibrous structure. At this juncture I sent the patient to West Texas, where he remained for three months.

He returned much improved in general health, but, of course, with the one cavity remaining, and with both sphincters severed, which caused fæcal incontinence.

The next operation consisted of closing this cavity with sutures, and, with it, the internal sphincter muscle. At the same time also the external sphincter was closed. The technique of the operation is described as follows:

The rectum and sigmoid flexure were thoroughly irrigated with formalin solution, and a small tampon of gauze was inserted into the rectum, Fig. 4. Then saline irrigation was substituted, while I dissected out all of the wall of this cavity and freshened the incised edges of the gut. This left, laterally, fat only, so I stitched anteroposteriorly with twenty day catgut from the apex to the base of the cavity, entirely closing it and the rent in the rectum and internal sphincter. Finally, the external sphincter and skin were sutured.

The results of this operation were that this immense cavity, which would admit a goose egg, was permanently closed, and with it the internal sphincter. The external muscle and the scar tissue constituting the tunic did not fare so well; for, on the seventh day, I emptied the rectum with an oil enema, and the external sutures became infected; so, in order to conserve the deeper work, I removed the external sutures and irrigated with formalin.

After the wound had healed I again united the ends of the external sphincter by the following method:

The tissue was dissected back from the anal margin, the muscle dissected out of a bed of scar tissue, and each end transfixed with twenty day catgut, after which these double sutures were tied together and the tissues were sutured over the muscle as best I could do. The result of this operation on the external muscle was more satisfactory, although, as in the preceding operation, there was some breaking down of the scarred skin.

The man is entirely well and carries his maximum weight. He was dismissed with instructions to return if, after a month or two, the cold water douching did not restore sufficiently the tonicity of the muscle, which by stimulation was made to contract firmly, although at other times inclined to be less sensitive than it should be, being in a state of atonic relaxation. This atony will be treated by electricity, if required. And here I wish to pause, to surmise that the external sphincter has a distinct ganglion, and that the division of the nerves about the rectum may be, and sometimes is, accountable for at least temporary atony and impaired function. So far as I know, this special ganglion above referred to has not been isolated; therefore I am not in a position to verify my supposition.

RANDOLPH BUILDING.

SOME OBSERVATIONS UPON THE NON-OPERATIVE TREATMENT OF SQUINT: THE WORTH AMBLYOSCOPE.

By WILLIAM CAMPBELL POSEY, M. D.,
AND
H. MAXWELL LANGDON, M. D.,
PHILADELPHIA.

(Concluded from page 1070.)

From a consideration of the facts brought out by a study of these cases, as well as from observations which were made from other cases which could not, for the reasons given above, be utilized for statistical purposes, the writers desire to call attention to the following:

1. The amblyoscope, to be of service in establishing binocular vision and removing the squint, must be employed in early childhood, preferably before five years of age. The writers agree with Mr. Worth in his statement that it may be used in children as young even as three years of age. Upon account of the extreme youth of these subjects, information regarding the amplitude of convergence cannot, of course, be obtained, the lessening in the angle of the squint and the improvement in vision in the squinting eye, as obtained by the ivory ball test, alone giving evidence of the benefit which is being derived from the treatment.

2. It is possible (as shown by Cases X and XI) to have good amplitude of fusion, while the squint still persists: such being the case in eyes where, notwithstanding the development of a perfect fusion sense, the eye still maintains a position of convergence, either by reason of some structural peculiarity, such as a faulty insertion of a muscle, or a palsy of an antagonist, or perhaps a contraction of the internus itself following a squint of long standing.

3. Vertical deviation in the images occurs in quite a large proportion of cases and of the nine recorded, took the form of a hyperphoria of the squinting eye in every case but one. This observation seems to have escaped Mr. Worth's attention, as he nowhere refers to it.

4. It should be remembered that the amblyoscope is an instrument to develop the fusion faculty and not to develop the visual acuity, any improvement in vision being secondary to the development of the fusion faculty and the increased use of the eye in its participation in binocular vision.

Although it would be futile to attempt in the few words which follow to combat the theory which Mr. Worth has advanced and to review at length the contents of his book, the writers cannot permit some of his statements to pass unchallenged. For example, he says: "Rhythmic exercises with prisms, cylinders, etc., are much employed in America in cases of heterophoria. I have tried them repeatedly and have never seen the least benefit from them." He says, however, in another place that in cases of insufficiency of convergence he has found the following exercise will often much improve the power of dynamic convergence, by teaching the nervous apparatus to respond more readily to the will. The plan he adopts is as follows: "The patient begins reading a book at the ordinary distance. Then, while still reading, he gradually brings the book nearer his eyes until the print begins to be blurred. He then slowly removes the book to the ordinary reading distance. This is repeated. At about every tenth line he looks into the distance for a moment, in order to completely relax his convergence. Two or three pages should be read in this way, twice a day, for two or three weeks."

The writers have not had an opportunity of testing this plan of treatment, but it would appear to them to be much less valuable than exercises which actually strengthen the power of the ocular muscles—for despite Mr. Worth's remarks upon the subject, prism exercises when properly performed, will relieve the symptoms of many cases of muscular asthenopia, and when persisted in do exert a marked effect upon the extraocular movements, particularly of adduction. As examples of this, the senior writer would refer to two cases which have been under his observation for several years past.

Miss M. A. J., aged thirty years; was first seen in November, 1899, on account of a divergence of the left eye, which was not constant, but which occurred whenever her attention was removed from her eyes, especially when she was fatigued. Exophoria for the distance equalled 10° and at the near point 17°. There was no hyperphoria. Uncorrected vision equalled $^{5}/_{5}$ in each eye; the refraction error consisted of ½ D. of hypermetropia and a similar degree of hypermetropic astigmatism in each eye. The divergence in the left eye was noted as being 10°, under the conditions just referred to. The patient was placed upon prism exercises and her adduction, which at first equalled but 5°, was brought in a few weeks to 100°. The prism exercises were continued over a period of several months, at the end of which time the tendency to divergence in the left eye had ceased and the visual axes were parallel. Exophoria was reduced to 2° at 5 metres and 5° at the near point. This patient has been under observation at regular intervals during the past four years, and there has been no tendency towards further deviation. The prism exercises have been persisted in from time to time, and exophoria now equals 2° at the far point and 3° for near.

Miss C. V. R., aged forty-one years; was first seen in January, 1898, coming for consultation in regard to an inability to use her eyes without pronounced symptoms. She had previously undergone a tenotomy upon both external recti, two upon the inferior rectus muscle of the left eye, and had had her right internal rectus muscle advanced. Exophoria at the distance equalled 22° and there was a right hypophoria of 4°. There was no fusion at the near point. The right eye diverged about 20°. Uncorrected vision equalled $^{5}/_{9}$ in the right eye and $^{5}/_{7}$½ in the left eye. In the right eye vision was brought to normal with plus C. O. 75 D. axis 90°, in the left with plus S. O. 75 D. combined with plus C. O. 50 D. axis 110°. Three degrees of the vertical muscle error were corrected by means of vertical prisms, and prism exercises, with the bases of the prisms out, were prescribed. After ten months of treatment, in which the adduction was brought from 0 to 100°, the exophoria at the distance gave way to an esophoria of 2° and at the near point to an esophoria of 1°. She was now able to use her eyes with comfort and the visual axes, under ordinary conditions, were perfectly straight. This patient has been under continued observation and when last seen, several months ago, the visual axes were straight and the eyes could be used without discomfort.

Exception must also be taken to another statement which Worth makes, to the effect that in cases of neuropathic divergent squint, i. e., cases in which the squint dates from infancy, where the refraction of the eyes is as a rule normal, and where the fusion faculty is absent, the treatment is not satisfactory, it being practically impossible to secure binocular vision, the only recourse being operation with the object of remedying the deformity.

In the three cases the notes of which follow, the deviation was so great that operation had to be resorted to, before fusion of the images of both eyes could be obtained, but after the visual axes had been made practically parallel, binocular vision was accomplished by the employment of stereoscopic and prismatic exercises. The writers, however, would record that the development of binocular vision, or the fusion faculty, in this class of cases, by the means just cited is a far more difficult procedure than the development of the fusion faculty in infants by the amblyoscope, and requires much patience, tact, and the exhibition of considerable will power upon the part of the patient, whereas with the amblyoscope the fusion of the images seems to be accomplished without conscious effort.

J. M. G., aged eighteen years; was first seen November 11, 1897; there was a history of divergence of the left eye since childhood. Upon examination it was noted that vision was normal in the right eye and equalled $^{5}/_{7}$½ in the left. Under atropine,

O. D. plus S. 1 D., with plus C. 0.25 D. axis 120° $= {}^{5}/_{5}$,
O. S. plus 2.75 D., with plus C. 0.50 D. axis 180° $= {}^{5}/_{5}$.

The right was the preferred fixing eye, the left deviating 30°. When fixing with the left eye the right eye diverged to a similar extent. Both externi had been divided by an oculist of this city three years previously, and since that time the patient had been able to see double at will, though he always had the power to suppress the image of the left eye. Both internal recti muscles were advanced, and as the left eye was found to be drawn upwards, a free tenotomy was done upon the superior rectus muscle of that eye. This muscle was found to have an insertion more external than is usual, and after its section the eye was found to drop not only downwards, but also to converge much more than after the advancement. A week after the operation, the reaction had subsided sufficiently to permit of a careful testing of the eyes, when it was found after the diplopia had been made manifest after some difficulty, by the use of a red glass, that the double images were homonymous. There was slight convergence of the visual axes. At the end of another week, another study of the double images was made, but was still attended with great difficulty, as the patient was unable to locate properly the position of the lights in relation to each other. In order to make him conscious of vision in each eye, he was given a red glass, through which to regard a light at 20 feet distance, first with one eye and then with the other, and prisms were prescribed with their bases in, with which to practise looking at the candle at frequent intervals during the day. A Kroll's stereoscope was also employed.

At the end of a week binocular vision was obtained with the stereoscope, but it was ascertained that the image of the left eye was higher than that of the right. Training of convergence was persisted in, both at home and at the office, until at the end of a fortnight the patient was able to converge the visual axes of both eyes somewhat. At the end of a month his correcting lenses were given him and he was permitted to read. The prisms were gradually strengthened until he was able to overcome 50° prism base out in each eye with ease. Adduction became perfect, and after three months of treatment all signs of reaction from the operation having passed away, it was almost impossible to ascertain that there had been any muscular insufficiency. With the Maddox rod esophoria equalled 4° at 6 metres, right hyperphoria 2°, and at the reading distance there was an exophoria of 3° with the same amount of hyperphoria.

W. H. A., Jr., aged eleven years, came for treatment on April 29, 1901; the right eye had diverged since infancy; it was noted that the strabismus equalled 30°, and that it transferred itself to the other eye when he was made to fix with O. D.

O. D. plus S. 1 D., with plus C. 0.50 D. axis 90° = $^{5}/_{5}$,
O. S. plus S. 1 D., with plus C. 0.50 D. axis 90° = $^{5}/_{5}$.

At five metres exophoria equalled 4°; right hyperphoria, 4°; no diplopia could be manifested at the reading distance. An effort was made to develop convergence by prism exercises, and he was given prisms, base out, of ascending strength. Daily exercises with the Kroll stereoscope were also enjoined. At the end of two months, adduction was perfect and the patient could hold his eye straight if he was attentive, but the right eye diverged the moment he ceased to be conscious of his eyes. Esophoria equalled 22° at the far point and 6° at the reading distance; there was no hyperphoria. Upon account of the deviation still persisting, a free tenotomy was performed upon the right external rectus muscle. Prism exercises of 20°, bases out, in each eye were continued, after the reaction from the operation had subsided, and at the end of a month the visual axes were straight and convergence normal.

M. G., age twenty-three years; left eye had deviated since early childhood, and upon examination was found to diverge 40°.

O. D. plus S. 0.50 D., with plus C. 0.25 D. axis 180° = $^{5}/_{5}$,
O. S. plus S. 0.25 D., with plus C. 0.50 D. axis 170° = $^{5}/_{5}$.

It was impossible to ascertain muscle error by ordinary testing, on account of failure to see double images. The rectus internus of the left eye was advanced under cocaine and a tenotomy performed upon the left external rectus. One week after the operation there was an esophoria of 20°, without hyperphoria. Kroll's stereoscopic pictures were employed and exercise with prisms and red glass. The esophoria steadily diminished, so that at the end of six months it equalled but 4° at the far point; there was an exophoria of 2° at the near point. There was a right hyperphoria of 1°. The visual axes were parallel.

These cases disprove Mr. Worth's statement also that, while it is true that binocular vision of a sort may in exceptional cases be acquired as late as eight or nine years of age, it is so feeble that it is powerless to maintain the normal relative deviation of the eyes in the presence of uncorrected hypermetropia; so that glasses must be worn through life to prevent a return of the deviation.

Worth's figures regarding the age at which the deviation first appeared are most valuable and interesting. Of 1,017 instances of unilateral convergent squint, he found that in nearly seventy-five per cent. of the cases the deviation appeared before the end of the fourth year, and in less than seven per cent. its advent was delayed until after the end of the sixth year. Of 178 alternating cases, the deviation was seen before the end of the second year in fifty-three per cent.

In closing, the writers cannot refrain from referring briefly to Mr. Worth's theory of the ætiology of squint. Mr. Worth gives us no hint of what he considers the fusion sense to be, whether it resides in a particular centre or group of centres; that he separates it, however, from the motor nuclei would seem to be evident from the statement quoted at the commencement of this paper, where, in speaking of cases in which the fusion faculty is but imperfectly developed or absent, Mr. Worth says that under these circumstances there is nothing but the motor coordinations to preserve the normal relative deviation of the eyes.

While he leaves the nature of the fusion faculty obscure, there can be no mistaking his assertion that the primary cause of squint is central, a defect in the fusion faculty, and that the condition of the eyes themselves is secondary.

It does not appear to the writers that the proof he offers of certain experiments with the amblyoscope by any means sustains his theory or confounds the theory of Donders of disturbed relationship between accommodation and convergence.

Apart from this, however, the writers believe that Mr. Worth has performed a real service to humanity by insisting that if the treatment of squint is to be efficacious, it must be inaugurated early, and carried on actively. They believe the amblyoscope to be an instrument of great value in training binocular vision, and sincerely trust that it will form part of the equipment of every ophthalmologist. Contrary to the impression one may at first obtain of it, the instrument is easy to use, and does not demand a great deal of time in its employment.

In common with Worth, the writers would insist upon the importance of instilling atropine into the non-squinting eye only. It is the custom of many to instil drops into both eyes: while this procedure, by paralyzing the ciliary muscles, relieves the faulty association which exists between accommodation and convergence in hypermetropic eyes, and frequently straightens the visual axes, it does nothing more, the vision in the squinting eye not being benefited thereby.

The writers are fully in agreement with Mr. Worth as to the advisability of fitting the subjects of squint with glasses, but doubt the expediency of doing this at such a tender age as he mentions, i. e., seven weeks, for they fear that the pressure which might possibly be exerted by the spectacles on the bones of the face, and in cases of faulty adjustment upon the eyeballs themselves, might cause changes which would be most deleterious and interfere with the proper development of these structures.

The writers have in several instances prescribed glasses at three years of age and have noted nothing but beneficial results therefrom. As this is the age at which Mr. Worth agrees it is proper to begin training the fusion faculty, it would appear fitting to make it also the proper time to give squinting children their correction.

ULTIMATE RESULTS OF MECHANICAL TREATMENT OF POTT'S DISEASE IN DISPENSARY PRACTICE.*

By HENRY LING TAYLOR, M. D.,

NEW YORK.

It is rather remarkable, considering the vast numbers of cases of Pott's disease that have been treated during a series of years in our public clinics, that no definite reports of the ultimate results in unselected cases appear to exist. It is certainly desirable that surgeons should have an exact idea of what is being accomplished in an affection upon which so much time, thought and effort are being expended.

At the start it must be confessed that the term "ultimate" in the title is not used in a strictly accurate sense, since most of these cases, as will be seen from the report, are still under treatment at the end of the term that has been somewhat arbitrarily chosen.

A similar investigation of results in private practice, reported to this association two years ago, was based upon cases that had been observed and recorded, with patterns of the spinal deformity, for ten years or more. Forty cases were reported answering these requirements, all but one of which had been treated by the Taylor brace. The results, with the patterns, were published in the transactions for 1902. The same requirements of observations, with notes and patterns for ten years or more, were taken as a basis for investigation at the clinic of the Hospital for the Ruptured and Crippled, New York, where practically all the new cases of Pott's disease are recorded in detail. Owing to the fact that the notes after the first visit are few, only eleven cases were found answering these requirements, out of nearly 1,200 cases recorded between 1888 and 1894. The periods covered by the notes and patterns in the eleven cases varied from ten to fourteen years. Every case was treated by mechanical support, and usually by fixed plaster of paris jackets for from four to eight years, after which, if the patient was considered free from active disease, a laced plaster of paris corset was usually substituted. In the upper dorsal and cervical regions a jury mast was added; in Cases 1 and 4 this addition to the jacket is noted. One case (3) was treated by the Taylor brace, and one (9) by the Knight brace throughout; in several the Knight brace was used in the later stages. The jackets were applied by the house staff, and varied somewhat with the changing personnel. They were changed every ten to twelve weeks, unless the patient absented himself, contrary to orders. Patterns were taken with the lead tape and transferred directly to the pages of the histories by pencil in the usual way, the patient being in the prone position.

The eleven patients of this group varied from two to eight years of age; six were three years of age or less. In no case had the symptoms attracted attention for more than one year; in seven, the duration was given as six months or less. In other words, these were young and beginning cases. In most instances the general condition when first observed was good or fair, and the deformity slight or moderate. Three had complicating bone disease, Case 2 in the radius and maxilla, Case 3 in the hip, and Case 6 in the knee. Two (8 and 10) had spinal abscesses, one of which receded without opening. In none was paraplegia noted.

In many instances the notes are defective as to the exact condition of the patient after the ten year period, but all but one or two were still under treatment and wearing support of some kind, either a plaster jacket, corset, or brace, at the time of the last note. Of the cases which had left off support, one (8) relapsed after a fall; in two, support was reapplied after a year or two, owing to pains, and but one (11) was known to be cured, having been without support during eight years.

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* Read before the American Orthopædic Association, at Atlantic City, May, 1904.

In every case but one (7) the final result showed a considerable increase in deformity; in case 7, after an initial increase there was a final decrease and practical obliteration of all deformity.

In one or two instances a preliminary gain was followed by a marked increase. The results as to deformity may be summarized as follows: Good 1, fair 5, poor 5. The result in all cases but one was a marked kyphosis, and in about half the cases a large and disfiguring kyphosis.

The histories and tracings have been arranged as in the preceding study, in a series according to the location of the disease from above downward; the areas involved ranging from the fifth dorsal to the fourth lumbar.

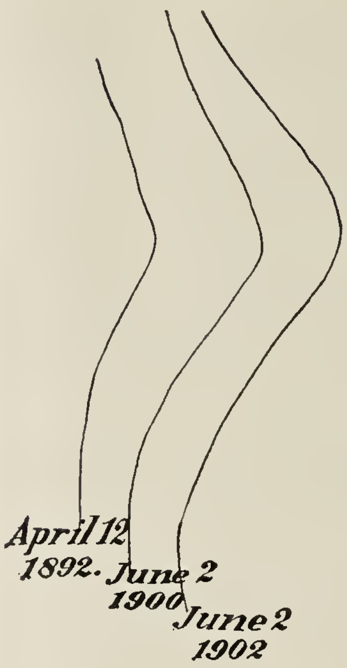
This group of cases is far too small to be more than suggestive, nor is it perhaps quite fair as an indication of average results, for, while the worst cases, those proving fatal within a few years, are excluded, so also are the best cases, cured within a few years, of which I have observed a considerable number, some with excellent results as to deformity. At the same time it bears out the writer's general impression that while the ordinary jacket treatment in dispensaries affords great relief and is productive of much benefit, it is not usually able quickly to arrest the disease or to prevent very serious and disfiguring deformity even in young patients seen in the first few months of the disease, and in otherwise good condition; and also that the results obtained are far inferior to those in private practice. But one of the eleven cases at the end of from ten to fourteen years' treatment could fairly be said to be cured, though all had been relieved, and the disease was quiescent in most.

The record and tracing of a case, in a patient nineteen years old, which had never received any treatment, is added for comparison. The disease was of eleven years' standing, and was apparently cured; the general health was fairly good, apparently at least up to the average of the treated cases. The deformity was enormous, but not much greater than in several of the treated cases. She had never had an abscess or paralysis.

Case I.—Fifth to seventh dorsal; three months' duration; considerable increase in deformity; still wearing brace.

Girl, seven years of age, came with marked angular deformity in April, 1892. There was also a slight inclination to the left. A plaster jacket with head spring was applied. The following July a right psoas contraction was noted. The head spring was worn three years, the jacket six years, when a Knight spinal support was substituted. At the last note, June 21, 1902, she was still wearing the brace.

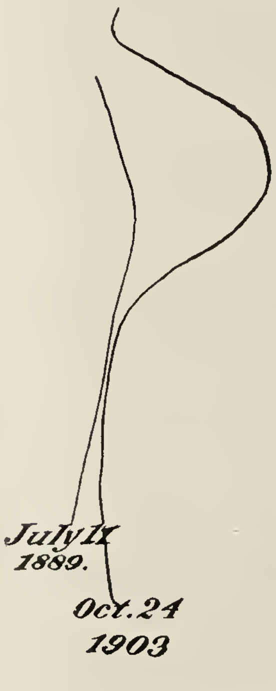
I



Case II.—Seventh and eighth dorsal; three months' duration; large increase in deformity; disease quiescent.

Girl, three years of age, came with moderate angular deformity and in poor condition, in July, 1889. There were two sinuses at the distal end of the radius. She wore the plaster jacket for four years, and a plaster corset, four or five years; since then an ordinary corset with extra stays. At the age of six years, she had an abscess in the maxillary region. At the time of the last note, October 24, 1903, the sinuses were all healed.

II



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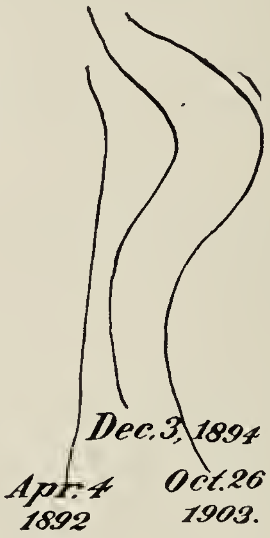

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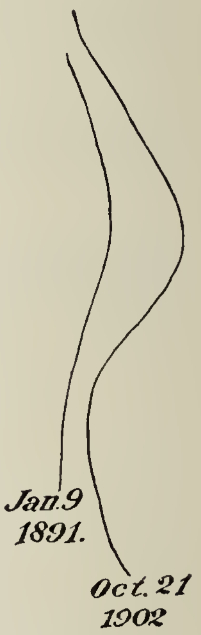


Case III.—Seventh to ninth dorsal; two months' duration; right hip disease; large increase in deformity; still under treatment.

Boy of five years of age, came in good condition, except for conjunctivitis, and with slight deformity, in April, 1892, and a Taylor brace was applied. In December, 1894, an abscess appeared on the inner side of left thigh, and he was found to have right hip disease. In October, 1903, he walked somewhat and his tracing showed a large rounded bosse.

Case IV.—Eighth and ninth dorsal; four months' duration; considerable increase in deformity.

Boy, three years old, came with inclination to right, a desire to lie down, and moderate deformity, in January, 1891. His general condition was good.

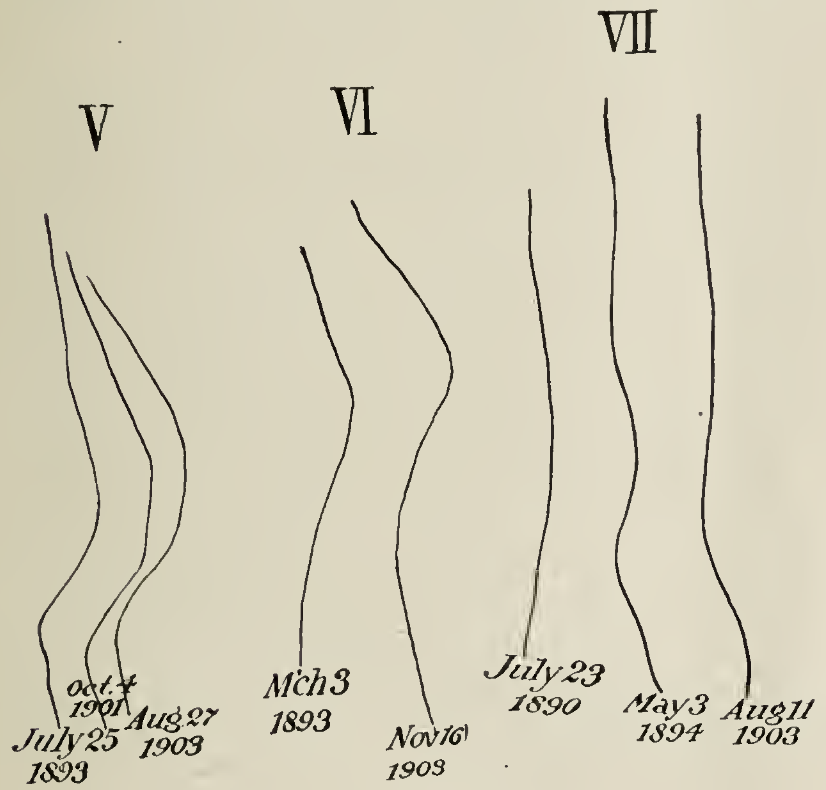
A plaster jacket and headspring were applied, and he wore them six years, changing them to a plaster corset and afterwards to a brace which he wore about four years. For a year before the last note, October 21, 1902, he wore no support. At that time he came back complaining of pain in the side.

Case V.—Eighth to eleventh dorsal; one year; considerable increase in deformity; still wearing brace.

Boy, eight years old, came in July, 1893, with considerable deformity, and in fair condition. He wore plaster jackets eight years, and afterwards a Knight spinal brace, which he was still wearing at the time of the last note, August 29, 1903; the disease was quiescent.

Case VI.—Tenth dorsal; one year; moderate increase in deformity; disease quiescent.

Boy three years of age, came with marked deformity and a lateral inclination, but otherwise in good condition, in March, 1893. A year later he developed a tuberculosis of the left knee. He wore plaster jackets four years, and then plaster corsets, which he was still wearing on November 16, 1903, but there were no acute symptoms. His knee was still in a plaster splint.



Case VII.—Tenth to twelfth dorsal; one year; increase of deformity followed by marked recession; still wearing support.

Boy, three years old, with distinct kyphosis, right psoas contraction, and unable to walk, came in July, 1890. He wore plaster jackets with relief three or four years, afterward corsets, which he is still wearing. He was at time of last note, January 8, 1901, in fair condition, but complained of dyspnœa, and was measured for a Knight spinal support. He has an hypertrophied and dilated heart. The deformity which at first increased, has nearly disappeared.

Case VIII.—Twelfth dorsal; three months; cure in four years with moderate increase in deformity. Recurrence (?) after a fall.

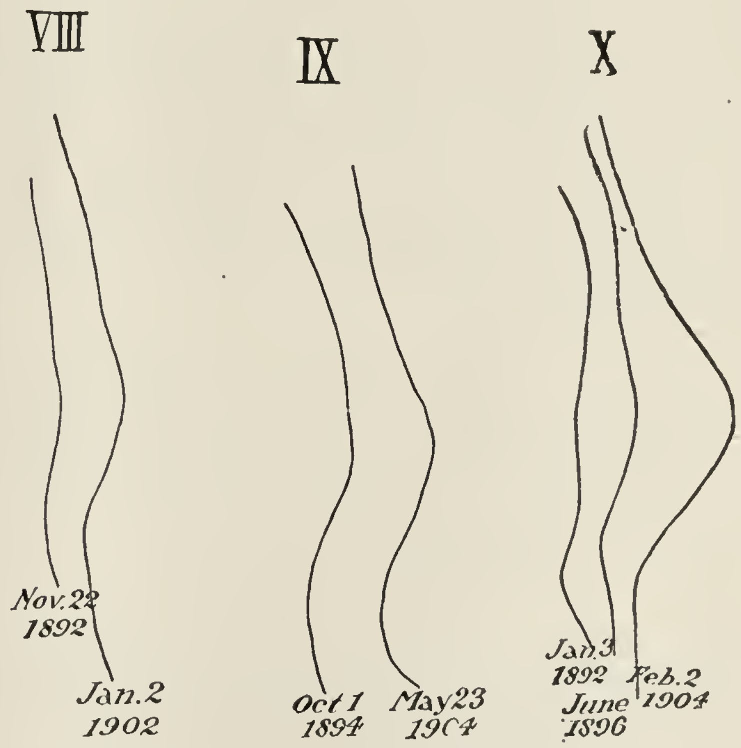
Girl, two and a half years old, came in good condition, with slight deformity, left psoas contraction, and a deep seated psoas abscess, in November, 1892. She wore plaster jackets and corsets four years. She had no trouble for five years, but in August, 1901, fell down stairs and since then she has pain in the right side and bends to the right. At time of examination and last note, January 2, 1902, a plaster corset was ordered. The abscess never opened.

Case IX.—Twelfth dorsal; one year; moderate increase in deformity; still wearing plaster corsets, and is in poor condition.

Boy, four and a half years of age, came October 1, 1894, with marked prominence at twelfth dorsal, but otherwise in good condition; there was some lateral bending. Wore plaster jackets eight years; last two years has worn plaster corsets. Is active but in poor general condition; does not hold himself well. Jacket ordered at mother's request.

Case X.—Twelfth dorsal to second lumbar; six months; large increase in deformity; still under treatment.

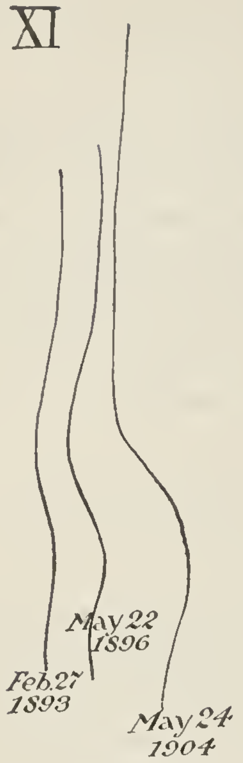
Girl two years of age, came in January, 1893, with marked deformity. She wore plaster jackets about eight years. The last note, taken February 2, 1902, states that she was lost track of about three years, that she then had an abscess in the left iliac region, and a plaster jacket was ordered.



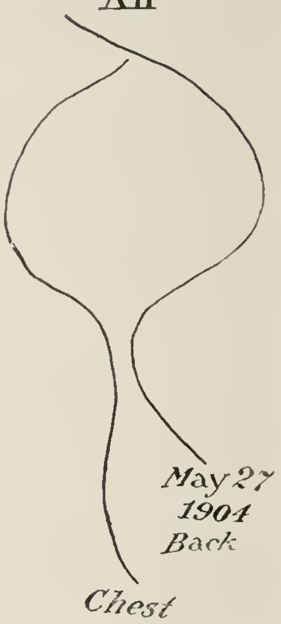
Case XI.—Fourth lumbar; six months; cure with Knight brace in three years. Later increase of deformity.

Boy, eight years old, came February, 1893, with moderate prominence at fourth lumbar; no pain. Six months later, right psoas contraction. Wore Knight brace three years, and nothing since. May 24, 1904, general condition excellent; no appliance in eight years. Kyphosis has increased. No spinal symptoms.

XI



XII



CASE XII.—Seventh to twelfth dorsal; never treated; enormous kyphosis and thoracic distortion.

Girl, nineteen years old, seen May, 1904. Disease began at eight years of age; never had any treatment for spine. The kyphosis, thoracic distortion, and telescoping are enormous, and patient is much dwarfed in trunk. She never had paralysis or abscess. Her general condition is nevertheless fair, and she has no signs of active disease, though she complains of pains in the sides apparently due to crowding of ribs. Her standing height is 51½ inches, deducting shoes; her sitting height, 23 inches, and measurement from anterior spine to malleolus, 31 inches. The sternum is strongly arched forward, making an anterior kyphosis.

This untreated case is noted for comparison.

The mediocre results shown in this group of cases should stimulate us possibly to a revision of the principles of treatment, certainly to more adequate technics in dispensary practice.

125 WEST FIFTY-EIGHTH STREET.

Numerically Insufficient Nursing Force in Small Hospitals.—On November 5th a delirious patient jumped from the third story window of St. Joseph's Hospital and was fatally injured. On November 19th, a patient in Columbus Hospital, New York city, was stabbed fatally by another patient who had feigned insanity to be admitted to the institution. From time to time similar occurrences are noted in the smaller hospitals in various parts of the country, and they are made possible by an insufficient staff of nurses. In the New York incident the Sisters, who manage the hospital, were absent from the wards at evening prayer. The managers of these institutions should take these two unfortunate incidents to heart and see that the arrangements for religious devotion or other activity incidental to hospital life on the part of the ward force does not leave the way clear for some patient to do bodily harm to another patient or to himself.

PUBLIC SCHOOL CHILDREN AND PREVENTIVE MEDICINE.*

DR. J. S. LANKFORD,
SAN ANTONIO, TEXAS.

No part of education can be more important than that which pertains to the health of the individual and the race, nor can the contents of any book surpass or even equal the importance of the practical lessons that the great teacher may impart which tend to lengthen life, lessen its ills and discomforts, and thus enhance the welfare and happiness of man.

I wish to discuss this subject from two standpoints: first, promotion of the health of the pupil, and second, what the trained pupil may do to promote the public health; preventive medicine in the sense of caring for the health and proper development of school children, and preventive medicine in the sense of employing the marvelous power of the combined effort of school children in protecting the health of the community.

We are too prone to forget the body in our schools, in our mad race after mental supremacy, and unless we insist upon a better balance in the training of the body and the mind, and give better attention to the protection of the health of our children in the period of development, we shall become a tottering race, brilliant but uncertain in mind, feeble in body, inclined to vicious habits, and tending strongly to insanity and degeneracy.

The public school is the greatest institution of this great country. It imparts a liberal education at a minimum cost to the property holder, and furnishes free education to the child of the poorest man, and thus makes possible and popular universal education, the very basis of the stability of all civilized government. It brings together all classes and nationalities, harmonizes conflicting social elements, produces good fellowship and warm sympathy, and unifies our people in one common purpose of progress and elevation, and thus broadens us and makes us a better and happier people.

But there are many problems yet to be solved before the public school has attained perfection, and one of the most important is that of relieving mental strain, and giving more attention to the proper development of the physical side of life, so that our children may grow up into strong men and women.

If our children would be happy, if they would be successful, if they are ambitious to accomplish great things, if they would make the most and the best out of life, they must first of all things have well developed and healthy bodies, so that the mind may have opportunity to do the best work.

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* Read at the Eighth District Medical Society.

To this end I shall mention some of the things which should engage the attention of school boards and health officers: First. I would place physical training. In our day of civilization, the rapid growth of the brain and the lack of sufficient exercise make it necessary to have properly managed gymnasium exercises in our schools. With proper facilities wonderful work is possible in physical training, not only in developing the average girl or boy, but especially in rounding out defective parts, converting weakness into strength and asymmetry into beauty. Known weak points may be entirely eliminated by proper development of parts needing special attention. Secondly, ample play grounds should be provided and outdoor sport encouraged. Thirdly, the course of study should not be too heavy, and should be adjusted to the condition and taste of pupils. Fourthly, the course of study should include not only manual training, but a very diversified course to meet the requirements of pupils and keep them happy in their study, and this course should be suitably limited. Fifthly, outdoor class study of botany, geology, sanitation, etc., is very desirable. Sixthly, night study should be absolutely prohibited below the sixth grade, and limited in the higher grades. Seventhly, the greatest care should be observed in constructing buildings so that heat, light, and ventilation may be perfect. Eighthly, girls, particularly, should study foods and food adulterations, and have good instruction in cooking. Half the ills and most of the quarrels and fights of the human family originate in the kitchen. Ninthly, girls should be instructed concerning the evils of tight lacing, of the suspension of heavy skirts from the waist, and of those woman killing French high heeled shoes and other deformities of dress. Tenthly, the eyes and ears require special attention. Many children are suffering with curable diseases, and many more are greatly limited in opportunity by defects in sight or hearing which can at least be improved if not relieved entirely. Eleventhly, every pupil in the public schools should be thoroughly instructed in the laws of sanitation, the causes of disease, and the methods of prevention. Twelfthly, this all means that every public school should be under medical supervision, so that the health of the pupil may have the best possible care and so that he may be trained in sanitary science, that he may do the best for himself and the community. The school board of San Antonio is under great obligation to the medical fraternity for valuable services. The problems of the pupil himself are full of interest, but we must turn to the second part of the subject, What the trained pupil may do for the promotion of public health.

The first duty of the nation, the State, the city is to protect the health of the citizen, and the highest duty of the individual is to lend every possible aid to the promotion of the public good by protecting the public health. The intellectual as well as the historical life of a nation must depend upon the education of the masses, and if the masses have the benefits of education upon prophylaxis, the nation must have the best chances for continuance, because the health of the citizens will be best conserved, and so, if we are patriotic, we must look into our school systems, see what is going on, and lend our assistance.

Perhaps I can best illustrate the possibilities of the training of public school children in sanitary subjects by relating our experience in San Antonio, which has attracted such wide attention. Last November we had a few cases of yellow fever which caused a little suffering, several deaths, and an inexcusable interruption of commerce that cost hundreds of thousands of dollars. In the commotion during the efforts of the city to relieve itself of the embarrassment, it was observed that there were some men who seemed too old to learn, or were not open to conviction, and it looked as though we were trying education at the wrong end of human life. It occurred to the chairman of the sanitary committee of the school board that the best time to begin any kind of education was in the early years, when the mind was easily impressed and full of faith, and it was suggested to the board that it would be well to educate our school children in prophylaxis and make sanitarians of them all. The proposition was considered by our broad minded school board and heartily approved. It was suggested that we take up, first, a campaign of education of the school children on Insects as Disease Carriers. The best recent medical literature on the subject was procured and furnished to the teachers, and a circular letter was sent out to them, outlining the proposed course and offering a cash prize for the best model lesson on the subject. The teachers were stimulated somewhat in the competition over the model lesson, but aside from that they became deeply interested in the subject and began to teach their classes in their own way, independently of the model lesson. A bottle of eggs and wigglers was kept in every school room, where the pupils could watch them develop from egg to wiggler, from wiggler to pupa, and from pupa to mosquito, and large magnifying glasses were furnished in order that the children might study to greater advantage. In order that the teachers might have the highest authority before them, and make no mistake, Howard's book on the mosquito was provided for them.

Plenty of artists were found among the school children, and illustrations of the mosquito in all stages of development were kept on the blackboards. Regular lessons were given occasionally, and compositions were written on the subject, examinations were held and frequent references to the subject were made, and groups of boys and girls were sent out with science teachers on searching expeditions to find wiggler homes. A good deal of rivalry sprang up among our ten thousand public school children, on the question of finding and reporting to the health office the greatest number of breeding places found and breeding places destroyed. A record was kept on the blackboards for information and to stir up enthusiasm among the children. Then a course of stereopticon lectures was arranged, grouping the pupils in audiences of about 1,000 from the high school down. It was an inspiring sight to watch these audiences of a thousand children, thoughtful, still as death, and staring with wide open eyes at the wonders revealed by the microscope. It seemed to me that in bringing this great question of preventive medicine before public school children we had hit upon a power for good that could scarcely be estimated. It was the same thing throughout the whole course of the lectures; every child listening and watching with profound interest. In order still further to impress the lesson, we have had charts drawn by an artist, which will be framed and hung in the art galleries of the schools, and lessons will be given from them occasionally. Our science teacher in the high school has been assigned to half day outdoor study, with different classes of boys, and at present is devoting the time to further study of the mosquito, reports being made to the health office under authority of the board of health.

Mosquitoes have been very perceptibly diminished in San Antonio this season, and we believe the pest can be exterminated entirely. The board of education proposes to follow up this work with a study of tuberculosis, typhoid fever, contagious diseases, and sanitation in general. San Antonio is the best informed city in the world on the mosquito, and our board is determined to push this work systematically along various lines till every pupil of our public schools has become an intelligent sanitarian as far as nature has given him the power.

Of course we have met with opposition, but it was comparatively unimportant, and found chiefly among three classes of people, the densely ignorant, the ultra conservative, and a few old citizens who refused to learn anything new. The movement, however, was very popular. Ignorance will be dissipated by education, which must necessarily permeate the whole community, extreme conservatism will yield to common sense, and the unyielding aged citizens will give place to another generation. It naturally follows that persistent effort will bring the whole community to one mind, to the great and lasting benefit of the city, and, if other cities and communities become interested and institute the same methods, and carry them out faithfully, the knowledge of practical sanitary science will become well nigh universal, to the marvelous advantage of the human race. Attendance upon the public school is so nearly universal that when our public school children have had the advantage of such training in sanitation and the laws of health, even political appointments cannot go far wrong, because the great majority will be prepared for intelligent sanitary work of all kinds.

Our work in San Antonio has attracted wide attention and many other cities have taken it up.

Readers, I appeal to you to go home and study your public schools. Your teachers are overworked and underpaid, your pupils are heavily burdened and need your thoughtful care in making proper provision for their physical development and practical training, and you will find, especially in this matter of training school children in preventive medicine, a power for the good of the people that you have never dreamed of and cannot estimate. In the light of present knowledge, gained from personal experience, I do not hesitate to say that that governmental policy, whether national, State, municipal, or in elective or appointive boards, which neglects to use this among other means for the protection of the public health, is highly reprehensible, and deserves condemnation. If the States, cities, boards of health, and school boards will take up this one question of teaching public school children preventive medicine, the results, in a few years, will reduce the mortality rate of our country, relieve the sufferings of our people, and facilitate commerce almost beyond belief. We cannot do less than use all our influence for a movement that promises so much, and still do our duty to our fellow man.

The Gingivostomatitis of Pregnant Women.—Pinard, according to *Revue française de médecine et de chirurgie,* for September 19, 1904, recommends:

℞ Chloral
Tincture of cochlearia } of each.........equal parts.
M. For a mouthwash.

NEW YORK MEDICAL JOURNAL
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NEW YORK, SATURDAY, DECEMBER 10, 1904.

INTERNATIONAL MILITARY MEDICAL STATISTICS.

In the form of a supplement to his report for the year 1904, the surgeon general of the army has recently issued a pamphlet giving the medical statistics of the American land forces for the year 1903, according to forms agreed upon at the Budapest meeting of the International Commission for the Unification of the Medical Statistics of Armies, held in 1894, as modified at the Madrid meeting of 1903. Table I shows in absolute numbers, by departments, the mean strength, the number of admissions to quarters and to hospital, the results of the sickness in general terms, and the total days of sickness. The whole number of admissions was 98,159, and that of the deaths was only 629 (including suicides and deaths by accident). Of the sick, 94,732 were returned to duty, and 3,627 were "otherwise disposed of." As the number of admissions was far in excess of the whole numerical strength of the army, we must infer that many of the sick were admitted to quarters or to hospital more than once. Table II gives the same statistics on a per mille basis, and in Tables III, IV, and V we find both absolute and per mille numbers classified as to the arms of the service (infantry, cavalry, etc.), as to the months of the year, and as to the large individual garrisons.

In Tables VI, VII, and VIII the nature of the illness is given according to the "international nosological table." The international nomenclature seems to us to leave something to be desired. In it we find "alkoholismus" instead of alcoholismus, "gonorrhea" instead of gonorrhœa, and "parotitis" instead of parotiditis. Those are minor points, but a more serious blemish, it appears to us, is the classification of trachoma apart from "morbi oculi;" moreover, if the term typhoid fever had to be superseded, we should have preferred the British "enteric fever" to the "typhus abdominalis" which we find in this list. The expression "exclusive venerie et syphilis" will be readily understood, we presume, but we must regard it as ill constructed. Finally, we do not find in the list any heading under which either a suicide or a death by accident could properly be included, but we are told that the statistics cover them both. As a matter of fact, they are given in a separate table, Table IX. These criticisms, it will be seen, bear solely upon the nomenclature employed in the nosological table agreed upon, to which our own surgeon general was, we suppose, constrained to make his statistics conform. Table X presents, both in absolute numbers and per mille, the total discharges of enlisted men for physical disability, classified so as to show whether it existed prior to enlistment and whether, when subsequently acquired, it was or was not incident to military service. Taken in conjunction with those of other armies, these statistics will undoubtedly in the course of a very few years be available for the drawing of valuable deductions on a large scale.

THE INDISCRIMINATE USE OF DANGEROUS DRUGS.

There have of late been several complaints of the freedom with which in France the general public can possess itself of dangerous medicaments. At a recent meeting of the Society of Therapeutics M. G. Bardet gave an impressive exposition of the results that sometimes follow the reckless sale of thyreoid preparations. He told of the case of a woman, sixty years old, whose appetite was such that she thought she could not submit to curtailment of her diet for the sake of relief from obesity. She allowed herself to be tempted by a manufacturer's circular setting forth the wonderful effects of thyreoid tablets in reducing flesh. She took them for several months, and, though she lost bulk satisfactorily, she began to suffer from heart trouble which soon assumed a certain degree of gravity. For about two months after the first attack of tachycardia she kept on taking the tablets. When she had given them up, but was still suffering with the cardiac paroxysms, she called in her physician; she omitted, however, informing him of what she had been doing, and he was naturally at a loss to account for her condition. By chance M. Bardet fell in with this woman and, having learned of her dosing herself with the tablets, apprised her of the danger she was incurring.

M. Bardet made brief mention of two other cases of the sort that had come under his observation. M. Albert Robin remarked that he had met with two similar instances, and M. Dignat also said that he had encountered two. In one of M. Dignat's cases, that of a young woman, not only cardiac trouble, but in addition severe uterine hæmorrhage, had resulted. In all the cases referred to discontinuance of the use of the thyreoid preparation had gradually been followed by subsidence of the grave symptoms; there can therefore be no doubt of the relation of cause and effect between the thyreoid dosing and the untoward occurrences.

It is not to be questioned that grave dangers to the public result from the practical absence of restraint over those who offer for indiscriminate sale medicinal preparations which, while they may not be so deadly as strychnine and arsenic, yet contain ingredients that are well known to be deleterious. Unfortunately France is not the only country in which the sale of injurious drugs is insufficiently restricted; in America the laxity is such that the dealing out of headache powders and other dangerous preparations to all purchasers is under practically no restriction. It is one of the many evils incident to self-dosing that ought to be done away with absolutely.

NEWSPAPER COOPERATION IN MEDICINE.

It is a commendable feature, well worth noting, that the great newspapers of the country are taking up the fight against tuberculous disease in earnest. One of the New York Sunday papers has recently published several admirably illustrated articles on the various sanatoria for the treatment of pulmonary troubles, and in the text has done much to commend the institutions to wealthy and charitably disposed persons. These articles have also helped to instruct the people in methods of preventing infection and caring for the unfortunates who dwell in the tenements of the city.

It is a fact of which the medical profession is well aware that the better class of newspapers are the great educators of the common people. They furnish them with their high school and college courses and do more than any other agency to form the opinions of the great multitude. This being the case, it behooves all reputable physicians to join in an effort to give the papers such medical reading matter as will interest and instruct their readers. In no other way could preventive medicine be taught so thoroughly and successfully as through the medium of newspaper publicity. Unthinking people, and, indeed, many of independent mind, believe absolutely everything they read in their paper. Therefore, preventive medicine could easily be instilled into the minds of this body.

Many of the papers of New York have one or more physicians on their staffs. Perhaps they are not attached to the papers as medical men, but ordinarily in some editorial or reportorial capacity. If some authoritative medical society were to provide for preparing instructive medical matter in such a way as to appeal to the cold blooded news sense of the Sunday or city editor of a paper, the cooperation of these physician editors on the dailies could be gained, and as a result a vast propaganda of truth could be started, which in the end would sweep away the barriers of ignorance and give the common people a practical scientific knowledge of the great essentials of preventive medicine, such as they can never learn in any other manner. And, with it all, this object could be reached in so ethical a manner that the ultrafastidious could not complain. This is a matter which the onward progress of medicine demands, and no doubt it will ultimately be carried out.

THE INADEQUACY OF EXISTING PROTECTION AGAINST SUBSTITUTION.

Perhaps to no other person is there so forcibly and frequently presented a realization of the potent and decisive effect of apparently trivial things as to the physician. In many cases of serious illness there is a critical period when a mere inadvertence or an error of judgment will mark the difference between success and failure. At such times, however competent and self-reliant the physician may be, he realizes with concern the element of human fallibility and uncertainty against which he contends. An act of indiscretion or disobedience on the part of the patient or a member of his family, a lapse of memory or an ill advised act on the part of the nurse, an act induced by petty greed on the part of the pharmacist, whereby, in compounding the prescription, he substitutes an article of inferior strength or merit or of different grade or character —any one of these acts may take from the physician the possibility of saving the patient's life.

From the first two of these sources of danger the physician may in a large measure protect his patient by giving the instructions and advice to the patient and the members of his family in the one case which the law makes it his duty to give, and by properly selecting and instructing the nurse in the other case; but as against the third source of danger—which I am sorry to say is by no means so infrequently a factor as to be safely regarded as negligible—he is quite powerless, except that he may so write his prescriptions that they can be compounded by a particular pharmacist only, one whom he knows to be reliable. This expedient is, however, impracticable in a great many cases; furthermore, if it is systematically followed perhaps it will subject the physician to accusations of profit sharing. No matter how unfounded this accusation may be, it is one which no professional man can afford to invite.

The only other protection which the physician and his patients have against this deplorable practice, which fortunately is limited to certain unprincipled pharmacists, is the protection vouchsafed by the State. In examining this safeguard, however, we are again disappointed. The only statute in the State of New York designed to prevent this evil is found in section 401 of the Penal Code. This section is entitled:

> "*Apothecary omitting to label drugs, or labeling them wrongly.*" It provides that: "An apothecary, or druggist, or a person employed as a clerk or salesman by an apothecary or druggist, or otherwise carrying on business as a dealer in drugs or medicines, who, in putting up any drugs or medicines, or making up any prescriptions, or filling any order for drugs or medicines, wrongfully, negligently, or ignorantly omits to label the same, or puts any untrue label, stamp, or other designation of contents upon any box, bottle, or other package containing a drug or medicine, or substitutes a different article for any article prescribed or ordered, or puts up a greater or less quantity of any article than that prescribed or ordered, or otherwise deviates from the terms of the prescription or order which he undertakes to follow, in consequence of which human life or health is endangered, is guilty of a misdemeanor."

It is apparent at first glance that the successful prosecution of an offender under this act involves proving by the prosecutor not only the act of substitution, but as well that the substitution is of such a character that "in consequence" thereof "human life or health is endangered." This opens up a fruitful field of legal controversy wherein it becomes necessary to interpret the meaning of the words quoted from the statute and to show by medical expert testimony that the substitution is such as to endanger human life or health. It is a rule of law that criminal statutes are to be strictly construed, although this rule is modified by statutory enactment in New York; yet it may well be argued that, according to their fair import, the words "in consequence of which human life or health is endangered" must be accepted as meaning that the substitution proved to have been made in the particular case was such as to endanger the life or health of the patient for whom the prescription was compounded in his condition of health as it then existed, and not that the substitution would endanger the life or health of certain patients under certain hypothetical conditions. This construction will involve proving the exact condition of the patient at the time of the act of substitution, and then proving by medical expert testimony that the substitution shown to have been made by the pharmacist did then endanger the life or health of that patient.

Such proof would create a *prima facie* case against the accused. In his defense he would be permitted to introduce any evidence tending to prove his innocence of the act charged or to show the incorrectness of the statements or opinions as testified to by the witnesses for the prosecution. To show this latter, he would be entitled to call any physicians whose opinions might be that the particular substitution did not endanger the life or health of the individual patient for whom the prescription was compounded in the condition of health existing at the time. Moreover, if the testimony of experts was that, in their opinion, the condition of the patient at the time of the act of substitution was such that he could not have recovered even though the prescription had been correctly compounded, would not this take the case outside of the contemplation of the statute?

Under such a law, and with testimony which it seems reasonable to believe the accused might adduce in a great majority of cases, it may fairly be expected that the juror, who under his oath is bound to regard the accused as innocent until he is proved beyond a reasonable doubt to be guilty, or the court in the absence of a jury, would feel constrained to render a verdict or a judgment of not guilty, notwithstanding it was clearly proved that the accused had substituted inferior or different drugs.

An examination of the statutes of several other States which might be expected to have afforded some protection to the people against this evil shows that they are utterly without legislation on this subject. It would seem that what is needed as a protection to the people and to the medical profession is an act making it a misdemeanor to incorrectly compound a prescription under any circumstances; and perhaps with a more severe penalty imposed where it is shown that evil results ensue upon the taking of the incorrectly compounded prescription. The legislatures of many of the States will convene in a little more than a month. If the need of the protection here suggested were presented to the members of these legislative bodies by their respective physicians, there can be but little doubt of the early passage of acts more effective than the one here examined.

Arthur N. Taylor.

VEGETARIANISM AND DISEASE OF THE VERMIFORM APPENDIX.

Perhaps the vegetarians will find support for their doctrines in the reputed freedom of the nomadic Arabs from appendicular disease, as was lately attested before the French Congress of Surgery by M. Brunswic-Le-Bihan, of Tunis (*Presse médicale*, November 2nd). Those Arabs, he says, are vegetarians, but the Arabs who live in towns and eat meat are by no means exempt from the disease, though in them it seems unusually prone to assume the character of a retrocæcal abscess.

CYPRESS OIL AS A REMEDY FOR WHOOPING COUGH.

It is proverbial that the great number of drugs that have from time to time been recommended for the cure of whooping cough shows the stubborn nature of the disease. One of the most recent is oil of cypress, which has been employed by Soltmann (*Therapie der Gegenwart*, 1904, 3; *Berliner klinische Wochenschrift*, October 3rd). According to his report, it reduces the number of paroxysms and diminishes their intensity, but he has not observed that it shortens the course of the disease. His method of using it is by sprinkling it on the bed clothes, so that the patient inhales its vapor.

BORIC ACID AS A POISON.

Now that the question of the harmfulness of preservatives is engaging considerable attention, it is interesting to note that at a recent meeting of the Paris Society of Therapeutics (*Presse médicale*, November 2nd) M. Chevalier stated that he had found in medical literature reports of twenty-two cases of poisoning with boric acid. From these he had come to the conclusions that poisoning was not so often due to a single large dose as to repeated doses, and that the external use of the drug was more likely to exert a toxic action than its internal administration.

Obituary.

WILLIAM FARREN CUSHMAN, M. D.,

OF NEW YORK.

Dr. Cushman's death, which took place on Thursday of last week, at his country home in Ridgefield, Conn., was sudden and is understood to have resulted from apoplexy. For several years his health had not been good, and, having retired from practice, he had led a placid life, for the most part in Ridgefield and in Lakewood, N. J., in each of which places he had a home of his own.

Dr. Cushman was a native of New York, a graduate of the School of Arts of Columbia College, and a graduate of the College of Physicians and Surgeons, of the class of 1863. He served a full term of two years on the surgical house staff of the New York Hospital, and for a considerable period he was a surgeon in the employ of the Pacific Mail Steamship Company. For a number of years he was the treasurer of the Board of Trustees of the New York Academy of Medicine. He was known as a capable practitioner and as a man of many lovable qualities.

News Items.

Society Meetings for the Coming Week:

MONDAY, *December 12th.*—New York Academy of Medicine (Section in General Surgery); New York Academy of Sciences (Section in Chemistry and Technology); New York Medicohistorical Society (private); New York Ophthalmological Society (private); Medical Association of the Greater City of New York; Society of Medical Jurisprudence, New York; Gynæcological Society of Boston; Burlington, Vt., Medical and Surgical Club; Norwalk, Conn., Medical Society (private).

TUESDAY, *December 13th.*—New York Academy of Medicine (Section in Genitourinary Surgery); New York Medical Union (private); New York Obstetrical Society (private); Buffalo Academy of Medicine (Section in Medicine); Kings County, N. Y., Medical Association; Rome, N. Y., Medical Society; Medical Society of the County of Rensselaer, N. Y.; Newark, N. J., Medical Association (private); Trenton, N. J., Medical Association; Clinical Society of the Elizabeth, N. J., General Hospital and Dispensary; Northwestern Medical Society of Philadelphia; Practitioners' Club, Richmond, Ky.; Richmond, Va., Academy of Medicine and Surgery.

WEDNESDAY, *December 14th.*—New York Pathological Society; New York Surgical Society; American Microscopical Society of the City of New York; Society of the Alumni of the City (Charity) Hospital; Society for Medical Progress, New York; Lenox Medical and Surgical Society (private); Medical Society of the Borough of the Bronx, New York; Pittsfield, Mass., Medical Association (private); Philadelphia County Medical Society.

THURSDAY, *December 15th.*—New York Academy of Medicine; Brooklyn Surgical Society; New Bedford, Mass., Society for Medical Improvement (private); Medical Society of City Hospital Alumni, St. Louis; Atlanta Society of Medicine.

NEW YORK.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending December 3, 1904:

	November 26.		December 3.	
	Cases.	Deaths.	Cases.	Deaths.
Measles	98	9	83	6
Diphtheria and croup	376	40	378	30
Scarlet fever	184	9	200	10
Smallpox	3	..	..	..
Chickenpox	136	..	155	..
Tuberculosis	324	166	326	165
Typhoid fever	89	12	85	17
Cerebrospinal meningitis	..	14	..	13
	1,210	250	1,227	241

New Brooklyn Hospitals Projected.—The Bethesda Deaconesses' Hospital of the East German Conference of the Methodist Episcopal Church was incorporated with the secretary of State on December 5th, for the purpose of maintaining hospitals in Brooklyn.

Complimentary Dinner by Dr. Wile.—Dr. William Conrad Wile, editor of *The New England Medical Monthly*, Danbury, Conn., gave a complimentary dinner on November 28th, at 7.30 p. m., at the Lotos Club, for A. L. C. Atkinson, secretary of the Territory of Hawaii.

New Women's Hospital for Brooklyn.—A movement is on foot among the women physicians of Brooklyn for the establishment of a hospital where women can be treated exclusively. It was decided at a meeting at the home of Dr. Jennie V. H. Baker, No. 512 Bedford Avenue, that the proposed institution should be a part of the Memorial Hospital.

Academy of Medicine.—The nomination of officers of the New York Academy of Medicine was held on December 1st at No. 17 West Forty-third Street. Among the members selected to run, and without opposition, were Dr. C. L. Dana, for president; Dr. T. M. Prudden, for vice-president; Dr. A. Jacobi, for trustee; and Dr. D. Bovaird, Dr. H. Gibney, Dr. E. L. Keyes, Jr., Dr. J. Ewing, and Dr. C. L. Gibson, for delegates to the State Medical Society. The election will be held December 15th.

Automobile Club of America.—At a meeting of this club on November 21st, Dr. D. H. Morris was elected president. The new president was born in New Orleans in 1872 and graduated at Harvard in 1896. Previously he took a degree of M. D. and was president of the New York Medical College and Hospital for Women. He married Alice Vanderbilt Shepard, daughter of Elliott F. Shepard, in 1894. He is a partner in the well known horse racing firm of A. H. and D. H. Morris.

The Lying-In Hospital.—The annual report of the Society of the Lying-In Hospital, just issued, states that the need of the society's new and thoroughly equipped hospital building and the good it has performed among the destitute poor in this city, has never been more evident than during the past year; but its resources, unfortunately limited, owing to lack of means, have been taxed to the very utmost, many deserving applicants for care and treatment being turned away because accommodation in two unused ward floors, containing 124 beds, could not be utilized, and cannot be until sufficient income is forthcoming to increase the service.

A Fellowship for Columbia University.—At the meeting of the trustees of Columbia University on December 5th announcement was made of the gift of $50,000 for the founding of a fellowship for research in physical science to be known as the Ernest Kempton Adams Research Fellowship. This is the gift of Edward D. Adams, of this city, in memory of his son Ernest Kempton Adams. The holder of the fellowship may be appointed either from one of the faculties, the teaching staff, the alumni or the student body. The collection of scientific apparatus gathered by Mr. Adams is also given to the University to be distributed among the electrical, physical, and psychological laboratories.

Jamaica Hospital, Brooklyn, Overcrowded.—The management of Jamaica Hospital for some time past has realized that an enlargement of the building has become an urgent necessity in order to carry on the work. The number of patients has increased so rapidly that the accommodations have become insufficient. The purchase of a house in the rear of the hospital, which was put in service in August last as a sleeping place for the nurses, has afforded considerable relief, but the need of more room is none the less urgent. The house has been comfortably furnished and the nurses who occupy it are much better situated than before. Notwithstanding this addition to the hospital plant there is still a lack of accommodations for the nurses, and two have been quartered in hired rooms outside. The proposed enlargement of the hospital building will give a room for the physicians, two or three small wards, with two or three beds, to accommodate such patients as object to the general ward, and yet do not feel able to afford a private room, and an isolation room, where patients with contagious diseases can be alone

Complaints at the Navy Yard, Brooklyn.—It is said that there is no small agitation among the officers of the Navy Yard at present over the unsanitary conditions surrounding them, and that the time is ripe for an appeal to the Navy Department on the part of the local authorities for many long needed improvements. The chief causes of discomfort are the filth collected in the upper end of the Wallabout Channel and the inadequate sewerage of Flushing Avenue, facing the residences of the yard officers. Much of the sickness which has occurred at periods in the Navy Yard may find its cause in the foulness of the waters of the Wallabout Channel. As far back as the time when the old receiving ship *Vermont* lay at Cob Dock, where the *Hancock* is now moored, sickness was exceedingly common. On board the *Vermont* there were epidemics of measles, diphtheria, and other maladies, all occurring with a regularity that suggested unsanitary conditions. Since then there have been frequent epidemics in the yard, but no steps have been taken to improve matters. It has been noticed that smallpox in Brooklyn has, in nearly every case, found its origin in the vicinity of the Wallabout.

Opening of the New French Hospital.—The handsome new French Hospital at 450 West Thirty-fourth Street, which has been two years in course of construction, was formally opened on November 12th by the French Ambassador to the United States, M. Jusserand, who, with Mme. Jusserand and the legation staff, came over from Washington for the purpose. The French Benevolent Society in all its work, of which this new hospital is a part, is entirely non-sectarian. On the hospital it still owes $175,000, the total cost of the building being $400,000; but this sum, it is believed, will be raised within a short time. This is the third French hospital the society has created and managed. The first one was at 131 West Fourteenth Street, and was opened in 1881. The second one, the one the new institution is to succeed, was opened at 320 West Thirty-fourth Street in 1888. The new building stands on the crest of the hill in West Thirty-fourth Street, the highest ground in that part of the city. It is built on solid rock, is seven stories high, and overlooks the Hudson. The building has a street frontage of 104 feet. Two floors are occupied by private rooms and small wards. Some of the private rooms have private bathrooms and can be arranged *en suite*. Two other floors are occupied by large medical and surgical wards. Still another floor is devoted to the operating rooms and to the pathological laboratory, and above those are the doctors' quarters. The top floor extends over part of the building only and is absolutely isolated. It contains the tuberculosis wards and the solaria; the hydrotherapy room is in the basement, where is also the machinery plant. The air for the wards and private rooms is drawn through filtering screens over tempering steam coils into a distributing shaft, from which it is forced into every room, while the vitiated air is gathered into one large suction shaft, at the top of which a fan expels it. The hospital will accommodate 150 patients.

St. John's Guild Floating Hospital.—In the report of St. John's Guild, at the annual meeting on November 9th, it was shown that the *Slocum* disaster strangely checked the benefits of the excellent charitable organization during the warm days of last summer. Such was the fear of water transportation established in the breasts of the people of the tenements after that tremendous loss of life that there was a marked falling off in the number of mothers carried on the guild's floating hospital. Still the guild was unable to meet all the demands made upon it, and the president calls upon its friends to send for copies of the annual report that they may acquaint themselves with the situation which confronts the trustees, and subscribe generously to a fund for furthering the good work so well started. The president's report states that the total indebtedness at the present time approximates $25,000, caused by deficiencies in the income for the past three or four years. Whereas the strictest economy has been practised, the demands upon the guild have been great, and no sick child applying for relief has been denied the help of the society. Through lack of funds, the guild was enabled to operate only one of its floating hospitals, namely, the *Helen C. Juilliard*, known as Floating Hospital No. 2. During the season it made forty-four trips; on only six days did the trips have to be abandoned on account of bad weather. The floating hospital carried 4,916 babies, 15,443 children, and 7,467 mothers, a total for the season of 27,826. These were gathered from the different sections of the city, as follows: East Side of Manhattan, 9,898; West Side of Manhattan, 11,792; Brooklyn 6,136. Two trips a week were made from each of these sections. The Seaside Hospital at New Dorp, Staten Island, throughout the season was taxed beyond its capacity, and cared for a larger number of sick children than ever before. During the season there were admitted to the hospital 668 infants, 900 children, and 688 mothers, a total of 2,256 persons. The number of hospital days was 20,732.

PHILADELPHIA.

Change of Address.—Dr. Charles W. Coburn, to 1308 South Twenty-fourth Street.

The American Academy of Ophthalmology and Otolaryngology will hold its next meeting in Buffalo, August 23, 24, and 25, 1905. President, H. W. Loeb, M. D., St. Louis, Mo.; secretary, George F. Suker, M. D., Akron, Ohio.

Northern Medical Association.—At the meeting of the Northern Medical Association, held December 9th, Dr. Ernest La Place read a paper entitled The Diagnosis of Surgical Diseases of the Abdomen.

Bequest to Presbyterian Hospital.—By the will of Caroline A. Palethorp a free bed for Protestants of both sexes has been endowed in the Presbyterian Hospital. The bed is to be known as the Palethorp Memorial Bed.

Deaths.—Dr. William L. Newell, of Millville, N. J., died at his home, November 27th, after a prolonged illness. He had been a practising physician for nearly fifty years.

Dr. Alexis I. Du Pont died at his home in Wilmington, Del., on November 26th, aged 62 years. Dr. Du Pont was a graduate of the academic and medical departments of the University of Pennsylvania.

Mütter Lecture at the College of Physicians.—The Mütter lecture on Surgical Pathology for 1904 was delivered on Friday evening, December 2nd, in the Hall of the College of Physicians. Dr. George H. Monks, assistant visiting surgeon to the Boston City Hospital and Lecturer on Surgery in the Harvard Medical School, was the lecturer. His subject was Studies in the Surgical Anatomy of the Small Intestine and Its Mesentery.

Nurses' Alumnæ Association of the Samaritan Hospital.—The graduates of the Samaritan Hospital's Training School for Nurses have formed an Alumnæ Association and elected the following officers: President, Miss Bessie Miller; first vice-president, Miss Sara Summers; second vice-president, Miss Annie Ash; secretary, Mrs. E. B. Mongel; treasurer, Miss Anna Lapp. Miss Margaret J. Maloney, director of the training school, has been elected an honorary member of the association.

Personal.—Dr. John Marshall, professor of chemistry, and Dr. Edwin S. Crawley, professor of mathematics, in the University of Pennsylvania, left Philadelphia on November 13th, *en route* for Denver and St. Paul. They will attend the meetings of the Colorado General Alumni Society of the University of Pennsylvania, which meets in Denver, December 3rd, and the Minnesota General Alumni Society of the University of Pennsylvania, which meets in St. Paul, December 5th.

Annual Meeting of Association for the Advancement of Science.—The annual meeting of the American Association for the Advancement of Science and of the societies affiliated with that organization, will be held at the University of Pennsylvania during the holidays. The Honorable Carrol D. Wright, commissioner of labor, president of the association, will deliver the annual address on the evening of December 28th, in the gymnasium. The association has at present about 4,000 members.

Philadelphia County Medical Society.—At the meeting of the Philadelphia County Medical Society, to be held December 14th, the following will be the programme: Dr. B. M. Anspach, The Diagnosis and Treatment of Acute Pelvic Peritonitis Associated with Gonorrhœal Salpingitis; Dr. Robert H. Chase, The Significance of Abulic Symptoms in Cases of Mental Disease; Dr. T. H. Evans, The Advisability of a National Department of Public Health and a Medical Cabinet Officer.

Meetings of Scientific Societies for Week Ending December 17th.—Monday, December 12th, Section on General Medicine, College of Physicians; Wills Hospital Ophthalmic Society. Tuesday, December 13th, Kensington Branch, Philadelphia County Medical Society; Philadelphia Pædiatric Society; Botanical Section, Academy of Natural Sciences. Wednesday, December 14th, Philadelphia County Medical Society. Thursday, December 15th, Section on Gynæcology, College of Physicians. Friday, December 16th, American Philosophical Society.

Jefferson Medical College Hospital.—The new hospital, which is in course of construction for the Jefferson Medical College at Tenth and Sansom Streets, is a six story, steel frame, fire proof building. In the basement the plans call for a power plant, x ray department, mortuary, and disinfecting apparatus. The administrative offices will be situated on the first floor. The second floor will be occupied by the men's medical and surgical wards and operating rooms. The women's medical and surgical wards will be on the third floor. The children's wards will be located on the fourth floor. The fifth and sixth floors will be devoted to private rooms, drug rooms, diet kitchen, and store rooms. There will be a roof garden. The building will cost about $1,500,000.

The Fourth Annual Conference of Sanitary Officers under the direction of the New York State Department of Health will be held in the Assembly Chamber of the Capitol at Albany, December 15 and 16, 1904. For the purpose of securing a uniform system of sanitation, and increasing the efficiency of local boards of health, this department is anxious to secure the attendance at the conference, of as many health officers and registrars as possible. Under section 21 of the Public Health Law, local boards of health are authorized to allow the reasonable expenses of health officers in "going to, attending, and returning from the annual sanitary conference of health officers." All interested in public health matters are cordially invited to attend. Daniel Lewis, M. D., commissioner of health.

Philadelphia Nurses for Panama.—Four of the trained nurses who have recently returned from Japan, where they were serving in the base hospital at Hiroshima, under the direction of Dr. Anita Newcomb McGee, have volunteered to go to Panama to nurse in the hospitals of the canal commission. Miss Ella B. King, Miss Adelaide Mackerette, Miss Minnie Cook, and Miss Genevieve Russell, the nurses in question, have had experience in Cuba and the Philippines in addition to the service rendered the Japanese government. The services of these nurses were accepted by the canal commission with the understanding that they would receive the regular salaries paid for nursing and remain until their services were no longer needed.

University Hospital Nurses Graduate.—The commencement exercises of the Training School for Nurses of the Hospital of the University of Pennsylvania were held in the Thomas A. Scott Amphitheatre of the Agnew Pavilion of the Hospital on Monday afternoon, November 28th. The amphitheatre was tastefully decorated with palms and cut flowers; an orchestra furnished music; and the hospital was open for inspection. The address was made by Dr. George E. de Schweinitz. Diplomas were presented by Mr. John Sailer, of the Board of Trustees, to the following nurses:

Miss Mary Virginia Stephenson, Miss Anna L. Andlauer, Miss Mae Josephine Collins, Miss Margaret M. Dougherty, Miss Mary D. Roche, Miss Emma M. McCauley, Miss Emma E. Weaver, Miss L. Berta Vaden, Miss Lottie M. Nagle, Miss Ada M. Shaw, Miss Louise M. Geary, Miss Mary Louise Snyder, Miss Anna J. Hughes.

Dr. Thomas G. Ashton presented the special medal for meritorious work to Miss Mary D. Roche.

The Health of the City.—The following contagious diseases were reported during the week ending November 26th:

	Cases.	Deaths.
Malarial fever	2	0
Typhoid fever	90	7
Scarlet fever	80	2
Smallpox	2	1
Chickenpox	119	0
Diphtheria	124	10
Cerebrospinal meningitis	2	0
Measles	6	0
Whooping cough	4	1
Tuberculosis of the lungs	43	53
Pneumonia	134	43
Erysipelas	11	3
Puerperal fever	4	3

The total death rate for the week was 417 in an estimated population of 1,408,154, corresponding to an annual death rate of 15.40 per 1,000. The following deaths were reported from other infectious diseases: Tuberculosis other than tuberculosis of the lungs, 5; tetanus, 2; diarrhœa and enteritis, under two years, 7. The total infant mortality was 70; 55 under one year and 15 from one to two years. There were 30 stillbirths; 19 males and 11 females. No unusual meteorological phenomena were recorded by the weather bureau.

Philadelphia Academy of Surgery.—The Samuel D. Gross prize of twelve hundred dollars will be awarded January 1, 1905. The conditions annexed by the testator are that the prize "shall be awarded every five years to the writer of the best original essay, not exceeding one hundred and fifty printed pages, octavo, in length, illustrative of some subject in surgical pathology or surgical practice, founded upon original investigations, the candidates for the prize to be American citizens." It is expressly stipulated that the competitor who receives the prize, shall publish his essay in book form, and that he shall deposit one copy of the work in the Samuel D. Gross Library of the Philadelphia Academy of Surgery, and that on the title page, it shall be stated that to the essay was awarded the Samuel D. Gross Prize of the Philadelphia Academy of Surgery. The essays, which must be written by a single author in the English language, should be sent to the trustees of the Samuel D. Gross Prize of the Philadelphia Academy of Surgery, care of the College of Physicians, 219 South Thirteenth Street, Philadelphia, on or before January 1, 1905. Each essay must be distinguished by a motto, and accompanied by a sealed envelope bearing the same motto, and containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay. The committee will return the unsuccessful essays if reclaimed by their respective writers, or their agents, within one year. The committee reserves the right to make no award if the essays submitted are not considered worthy of the prize. John B. Roberts, M. D., William L. Rodman, M. D., William J. Taylor, M. D., trustees.

The American Association for the Advancement of Science.—The twenty-seven societies which are more or less closely affiliated with the American Association for the Advancement of Science will hold their annual meetings in the buildings of the University of Pennsylvania, December 27th, 28th, and 29th.

The American Chemical Society will hold its sessions in the Harrison Laboratory of Chemistry, Thirty-fourth and Spruce Streets; the American Physical Society, in the Morgan Laboratory of Physics, Thirty-fourth and Locust Streets; the American Society of Naturalists, in the New Medical Laboratories, Hamilton Walk; the Geological Society of America in the Laboratory of Geology, College Hall; the Astronomical and Astrophysical Society of America in College Hall; the Botanical Society of America in Biological Hall, Hamilton Walk; the Society for Plant Morphology and Physiology in Biological Hall; the Society for Horticultural Science in Biological Hall; the Wild Flower Preservation Society of America in Biological Hall; the Mycological Society of America in Biological Hall; the Botanical Club of the American Association for the Advancement of Science in Biological Hall; the Sullivant Moss Chapter in the Academy of Natural Sciences, Nineteenth and Race Streets; the Fern Chapter in Biological Hall; the Association of American Anatomists in the Wistar Institute, Thirty-sixth Street and Woodland Avenue; the American Society of Zoologists in the New Medical Laboratories; the American Society of Palæontologists in the New Medical Laboratories; the American Physiological Society in the New Medical Laboratories; the Society of American Bacteriologists in the Laboratory of Hygiene, Thirty-fourth and Locust Streets; the American Folk Lore Society in the Museum of Science and Art, Thirty-second and Spruce Streets; the Entomological Club of the American Association for the Advancement of Science in New Medical Laboratories; the Association of Economic Entomologists in the New Medical Laboratories; the Society for the Promotion of Agricultural Science in Biological Hall; the American Anthropological Society in the Museum of Science and Art; the American Mathematical Society in College Hall; the Society of the Sigma Chi in Houston Hall, Thirty-fifth and Spruce Streets; the Society of College Teachers of Education in College Hall; the American Psychological Association in College Hall.

The Sections of the American Association for the Advancement of Science will meet as follows: The general meeting will be held in the chapel in College Hall; the section in mathematics and astronomy in College Hall; the section in physics in the Morgan Laboratory of Physics; the section in chemistry in the Harrison Laboratory of Chemistry; the section in mechanical science and engineering in the Mechanical Engineering Building; the section in geology and geography in the Laboratory of Geology, College Hall; the Society of Zoology in the New Medical Laboratories; the section in botany in Biological Hall; the section in anthropology in the Museum of Science and Art; the section in social and economical science in Logan Hall; the section in physiology and experimental medicine in the Laboratories of Physiology and Pathology in the New Medical Laboratory Building.

GENERAL

Christ Hospital, Jersey City.—A new ambulance has been added to the equipment of Christ Hospital, Jersey City.

Jail Physician of Binghamton, N. Y.—Dr. J. S. Kelly has been appointed to this position at a nominal salary.

Matteawan State Hospital.—Dr. Robert B. Lamb has been appointed medical superintendent of this institution for the care of insane criminals.

Ambulances for Orange.—The new Record Ambulance Station in Orange, N. J., was opened November 26th. It cost $6,000, and has accommodations for three ambulances, four horses, and the station employees.

Obituary Note.—Dr. William E. Carroll, a prominent practitioner of Newark, died of pneumonia, December 2nd, aged 57 years. He was a graduate of the College of Physicians and Surgeons, and had for over twenty years been a visiting surgeon to St. Michael's Hospital, Newark.

Dr. Edwin Ricketts, of Cincinnati.—We learn that Dr. Ricketts was recently operated upon at the Good Samaritan Annex by Dr. Charles A. L. Reed for umbilical hernia. We are glad to learn further that Dr. Ricketts has made a rapid recovery and is now able to go on with his professional work. We feel that our gratification will be shared by Dr. Ricketts's multitude of friends in the profession.

Dr. Leroy S. Chadwick.—Mrs. L. S. Chadwick, whose financial difficulties are being aired in the daily press, is the wife of Dr. Leroy S. Chadwick, of Cleveland, who graduated from the medical department of the University of Wooster, now known as the Cleveland College of Physicians and Surgeons, in 1877. He was for many years a well known practitioner, but of late years has spent much time abroad.

The Jersey City Board of Health has appointed Clinton, Russell, and Wells, of New York, to design the plans for the new city hospital. The recommendations of the board's building committee call for an expenditure of $400,000. There will be ward accommodations in the new institution for 200 patients, and there will be separate buildings for a nurses' home to house 40 nurses, an ambulance house, a tuberculosis pavilion, a dispensary, a morgue, and a power house.

Macon, Ga., Physician Recovers Damages from a Railway.—The jury in the suit for damages brought in the Macon court by Dr. J. M. Mason against the Macon Railway and Light Company, brought in a verdict for $2,500 on November 5th. Dr. Mason sued for $10,000. He stated that he was struck by a brake handle on a street car, and that his injuries were permanent and so serious as to entitle him to recover $10,000 from the company. The company gave notice at once that a new trial would be asked for.

New Hospital for Pine Bluff, Ark.—The plans for the new hospital to be built in Pine Bluff by the Ladies' Hospital and Benevolent Association have been examined by Dr. C. A. Satch, head physician of the Cotton Belt Hospital at Texarkana, and with the suggestion of a few minor changes have been approved and formally adopted. As soon as the city grades the lot on which the building is to be erected, work on the structure will begin. It was decided at the last meeting of the association to erect a three story building.

Hackley Hospital, Muskegon, Mich.—The Hackley Hospital, founded by Charles H. Hackley, and given by him to the city of Muskegon, was dedicated and opened to the public on Thursday, November 17th. The dedicatory exercises took place in the afternoon in the Grand Theatre, James B. Angell, president of the University of Michigan, delivering the principal address. The hospital was presented by Charles H. Hackley to his home city, which has already received from him many gifts and which, with the hospital, represent a money value of more than one and a half millions of dollars.

Board of Health Organized in Jefferson County, Ark.—County Judge E. J. Kerwin has made another move for the improvement of the condition of Jefferson county, Ark., by the appointment of a board of health for the county. This was made possible by a law passed by the last legislature, of which Judge Kerwin was a member, giving the county judge the power to create this board. Judge Kerwin has appointed Dr. H. E. Williams and Dr. O. W. Clark, of Pine Bluff, and Dr. D. N. White, of Sherrell, as members of this board. The county board will cooperate with the city board in looking after the general health of the county and city.

World's Fair Medal for Hospital Designs.—It is announced that a gold medal has been awarded to Meyer J. Sturm, architect, and Dr. A. J. Ochsner, both of Chicago, for hospital plans exhibited at St. Louis. The notification has been received from the president of the superior jury. The plans were entered under charities and corrections, class 139, and consist of complete plans of four hospitals—a city hospital, a country hospital, a hospital for towns, and a hospital for the treatment of contagious diseases. The latter plan presents a radical departure from any existing hospital structures now in use. Dr. A. J. Ochsner is head surgeon of St. Mary's, of Nazareth Hospital and the Augustana Swedish Hospital.

Société Internationale de Chirurgie.—The first congress of this society will be held in Brussels in September, 1905, Professor T. Kocher, of Berne, presiding. Only members of the society are expected, and discussions will be limited to papers on the official programme, which is as follows: Value in Surgery of Examination of the Blood; Treatment of Prostatic Hypertrophy; Surgical Intervention in Non-Malignant Affections of the Stomach; Treatment of Articular

Tuberculosis; Treatment of Peritonitis; Diagnosis of Surgical Diseases of the Kidney. All communications should be addressed to Dr. Charles Willems, 6 Place St.-Michel, Ghent.

Hudson River State Hospital.—Dr. Isham G. Harris has been appointed first assistant physician, to Dr. Pilgrim, superintendent of the Hudson River State Hospital. Dr. Harris received his notification the latter part of the week, that he had successfully passed his civil service examinations for the position, and henceforth would fill the position left vacant recently by the resignation of Dr. Bamford, who has entered into private practice. There were seventeen candidates for the position and out of the seventeen, Dr. Harris passed second. The civil service allows that the candidate may be chosen from the three standing highest. Dr. Harris received the appointment. Dr. Harris has been attached to the Hudson River State Hospital for the past thirteen years.

Home for the Detroit Visiting Nurses' Association.—Ground has been broken at the northwest corner of Brush Street and Forest Avenue, Detroit, Mich., for a three story brick and stone building, which is to be the headquarters of the Visiting Nurses' Association and the home of the nurses themselves. The money for the purchase of the lot and for the erection of the building was given by Mrs. Tracy McGregor, and it is estimated that the total cost will be in the neighborhood of $20,000. The house is to be an ordinary dwelling, and it will be furnished with nine or ten bedrooms. The only unusual feature will be a disinfecting room for the accommodation of the nurses after they have visited patients. Though the matter has been little talked about, it has been a matter of consideration for nearly twelve months. Ground was broken about two weeks ago and the building will be erected as quickly as is possible. The possession of a new home will open up opportunities for a largely increased work. The association, at present, has four nurses in its employ, but this number is to be increased as fast as the means of support grow. The work of the association is carried on by voluntary contributions.

New Jersey State Board of Medical Examiners.—At a meeting of this board, held at Newark. November 2nd, the following candidates for a State medical license who passed the examination at Trenton, October 18th to 19th, were duly licensed. Twenty-five per cent. of the candidates were rejected:

Herbert J. B. Belcher, of Paterson; Harry Frederick Bushey, of Camden; Thomas Arthur Clay, of Paterson; Shobel Vail Clevenger, of Atlantic City; James Patrick Coll, of Philadelphia; William Higgs Cunningham, of Hammonton; Walter James Curley, of West Upton, Mass.; Peter Price Denton, of Paterson; William Francis Donovan, of Brielle; Owsley Bennett Duncan, of Paterson; Edward Francis Fitzpatrick, of Jersey City; Wilbur Allen Foster, of Wilkes-Barre, Pa.; William Francis Gutherson, of Paterson; Ida Louise Haverstick, of Philadelphia; Louanna Heath, of Somerville; Peter Joseph Johnson, of New York city; Alexander Spencer Kaufman, of Philadelphia; Francis John Kerns, of Newark; Maurice J. Klein, of Newark; Chauncey Benjamin Lambert, of Riverside; Israel Levine, of Paterson; Julius Levy, of Orange; William Gibbs Nash, of West Somerville, Mass.; Charles Llewellyn Owens, of Sunnybrook, Md.; James Gordon Rea, of Paterson; Erwin Reissman, of New York city; Edwin Nicholas Riggins, of East Orange; John J. Rufe, of Revere, Pa.; William Whitney Waterman, of New York city; Arthur Hamilton Ward, of Paterson; Henry Rudolph Widmer, of Newark; Bernard Henry Woolff, of New York city; Thomas Youngman, of Atlantic City.

Statement of Mortality in Chicago, Ill., for the Week Ending December 3, 1904, compared with the preceding week and with the corresponding week of 1903. Death rates computed on United States Census Bureau's estimated midyear populations of 1,932,315 for 1904 and of 1,873,880 for 1903:

	Dec. 3, 1904.	Nov. 26, 1904.	Dec. 5, 1903.
Total deaths—all causes	450	425	478
Annual death rate per 1.000	12.44	11.49	13.30
By sexes—			
Males	251	236	275
Females	199	189	203
By ages—			
Under 1 year	64	60	87
Between 1 and 5 years	34	37	41
Over 60 years	98	110	110
Important causes of death—			
Acute intestinal diseases	21	23	21
Apoplexy	11	20	16
Bright's disease	35	27	30
Bronchitis	13	13	17
Consumption	54	46	46
Cancer	30	24	26
Convulsions	9	7	18
Diphtheria	13	9	13
Heart diseases	49	50	43
Influenza	1	2	1
Measles	3	2	0
Nervous diseases	17	17	29
Pneumonia	64	59	77
Scarlet fever	3	2	1
Suicide	8	5	10
Smallpox	2	0	0
Typhoid fever	3	8	10
Violence (other than suicide)	33	19	23
Whooping cough	3	2	1
All other causes	77	90	96

Pneumonia is much less prevalent and less fatal this year than usual. During the first eleven months of 1903 there were 4,133 deaths from the disease. During the similar period this year only 3,690 pneumonia deaths occurred. In November, 1903, there were 333 deaths and last month only 260 from pneumonia. The present Chicago proportion of pneumonia deaths to deaths from all causes is 13.6 per cent.; from consumption it is 11.3 per cent. The corresponding figures for New York were 11.5 per cent. for consumption and 17 per cent. for pneumonia.

Mortality of Michigan During October, 1904.—The total number of deaths returned to the office of the secretary of State for the month of October was 2,565, corresponding to a rate of 12.0 per 1,000 population. This rate was lower than that for September (12.7), and also lower than that for the corresponding month of the previous year (12.5). By ages, there were 483 deaths of infants under one year of age; 152 deaths of children aged one to four years, and 789 deaths of elderly persons aged sixty-five years and over. Important causes of death were as follows: Tuberculosis of lungs, 195; other forms of tuberculosis, 34; typhoid fever, 67; diphtheria and croup, 27; scarlet fever, 3; measles, 4; whooping cough, 9; pneumonia, 109; diarrhœa and enteritis, under two years, 168; cancer, 146; accidents and other violence, 195. Deaths from pulmonary tuberculosis and pneumonia increased for October as compared with the preceding month; but there was a large diminution in the number reported from diarrhœal diseases. Typhoid fever showed a very slight increase over September. There were two deaths reported from smallpox during the month, one in Bay City and one in Calhoun township, Calhoun county.

Seventeenth Annual Meeting of the Southern Surgical and Gynæcological Association, to be held at the Hotel Hillman, Birmingham, Ala., December 13, 14, and 15, 1904. Preliminary programme:

Presidential Address, by Dr. Floyd W. McRae, of Atlanta, Ga.; Address of Presentation of Davis Monument, by Dr. C. M. Rosser, of Dallas, Tex.; Address of Acceptance on Behalf of State of Alabama, by Governor R. M. Cunningham, M. D.; Address of Acceptance on Behalf of the City of Birmingham, by the Honorable W. M. Drennan; titles of papers: Gall Stones in the Ampulla Vater, by Dr. A. H. Ferguson, of Chicago, Ill.; A Method of Uniting Intestines of Very Small or Unequal Calibre, by Dr. J. Shelton Horsley, of Richmond, Va.; Enterostomy, by Dr. J. W. Long, of Greensboro, N. C.; The Treatment of Fæcal Fistula, by Dr. Stuart McGuire, of Richmond, Va.; Intestinal Obstruction, by Dr. D. F. Talley, of Birmingham, Ala.; The Abuse of Purgatives Before and After Abdominal Section, by Dr. I. S. Strong, of Washington City, District of Columbia; Observations Upon the Aseptic Technics of Abdominal and Pelvic Surgery, by Dr. Henry T. Byford, of Chicago, Ill.; The Employment of Celluloid Plates for Covering Defects in the Skull, by Dr. W. Perrin Nicholson, of Atlanta, Ga.; On the Sterilization of Cutting Instruments, by Dr. H. A. Royster, of Raleigh, N. C.; When Shall We Resect in Tuberculous Disease of Joints? by Dr. C. E. Caldwell, of Cincinnati, Ohio; The Clinical Consideration of Tumors, by Dr. W. F. Westmoreland, of Atlanta, Ga.; Personal Experience in the Surgical Treatment of Cancer of the Cæcum, by Dr. G. Wiley Broome, of St. Louis, Mo.; Cases in Which Early Diagnosis of Cancer of the Body of the Uterus Was Made, by Dr. Rufus B. Hall, of Cincinnati, Ohio; Final Results in X Ray Treatment of Malignant Tumors, by Dr. William B. Coley, of New York city; Fibroid Degeneration of the Uterus After Ablation of the Appendages, by Dr. J. Wesley Bovee, of Washington City, District of Columbia; A Contribution to the Origin of Adenomyoma of the Uterus, by Dr. J. Whitridge Williams, of Baltimore, Md.: Alexander's Operation, by Dr. Charles P. Noble, of Philadelphia, Pa.; Effect of Suspensio Uteri on Subsequent Pregnancy and Labor, by Dr. Joseph Taber Johnson, of Washington City, District of Columbia; Surgical Treatment of Goîtres, by Dr. G. W. Crile, of Cleveland, Ohio; The Management of Acute Perforative Peritonitis, by Dr. J. Garland Sherrill, of Louisville, Ky.; Some Further Advances in Renal Surgery, by Dr. John B. Murphy, of Chicago, Ill.; Report of a Case of Rupture of the Diaphragm, by D. George S. Brown, of Birmingham, Ala.; Typhoid Fever and Appendicitis, by Dr. J. C. Oliver, of Cincinnati, Ohio; Vaginal Cæsarean Section, Report of a Case, by Dr. C. Jeff Miller, of New Orleans, La.; An Unusual Case of Cæsarean Section: Double Vagina, Double Uterus; Pregnancy in One Uterus, Fibroid Preventing Delivery in the Other, by Dr. George Ben Johnston, of Richmond, Va.; Obliteration of Stomach by Caustic, by Dr. S. J. Mixter, of Boston, Mass.; (1) Vesical Diverticula; Report of Four Cases Requiring Operation. (2) The Ultimate Results Obtained by Conservative Perineal Prostatectomy in Seventy-five Cases, by Dr. Hugh H. Young, of Baltimore, Md.; A Typical Case of Tuberculous Peritonitis, by Dr. W. P. Manton, of Detroit, Mich.; Pelvic Floor Repairs During the Menopause, by Dr. Joseph Price, of Philadelphia, Pa.; Pelvic Inflammation: A Discussion of Some Moot Questions Relating Thereto, by Dr. L. H. Dunning, of Indianapolis, Ind.; Hæmatoma of the Ovary, by Dr. Magnus A. Tate, of Cincinnati, Ohio; Tracheotomy for Gunshot Wound of the Trachea, by Dr. J. McFadden Gaston, of Atlanta, Ga.; Stypticin in Uterine Bleeding, by Dr. H. J. Boldt, of New York city; (1) Encephalomeningocele. (2) An Easy Method of Instituting Peritoneal Gauze Drainage Through the Cul de Sac, by Dr. W. D. Haggard, of Nashville, Tenn.; title not announced, by Dr. C. H. Mayo, of Rochester, Minn.; title not announced, by Dr. M. H. Richardson, of Boston, Mass.

Pith of Current Literature.

PRESSE MEDICALE.

October 26, 1904.

Opotherapy in Typhoid Fever, By CHANTEMESSE.

Opotherapy in Typhoid Fever.—Chantemesse states that, to be valuable, statistics on this subject should be drawn from a large number of cases, should show a comparison between cases treated with serum and those treated without, and furnish proof verifiable at once by any investigator. In 523 cases treated with antityphoid serum, Chantemesse had a mortality of 22, or 4 per cent. The usual mortality is 18 per cent. Contrary to usage with diphtheria antitoxine, the more aggravated the symptoms of typhoid fever, the feebler should be the dose of the antityphoid serum.

October 29, 1904.

Primary Mesenteric Thrombophlebitis,
By MIGNON and DOPTER.

Primary Mesenteric Thrombophlebitis.—Mignon and Dopter state that but few cases of this condition have been reported; apparent intestinal occlusion is its principal symptom. The writers report a case at length in a patient who entered their service with severe abdominal pain, apparently due to occlusion. They operated without discovering any lesion. The patient died comatose and the necropsy disclosed ecchymosis of a long section of the small intestine, great thickening of the mesentery, and phlebitis of the portal vein and the mesenteric veins. Microscopical examination disclosed a true intestinal venous infarct, primary thrombosis of the great mesenteric vein, secondary thrombosis of the portal vein, and passive thrombosis of the splenic vein.

ZENTRALBLATT FUER GYNAEKOLOGIE.

October 15, 1904.

1. Lipoma of the Abdomen, By F. MICHEL.
2. Modern Efforts in the Prophylaxis of Puerperal Fever, By W. SIGWART.
3. Prevention of Blenorrhœa Neonatorum, By ERNST.

2. Prophylaxis of Puerperal Fever.—Sigwart criticises Zweifel's suggestion to clear the vagina of blood clots immediately after labor, and Kroemer's idea of extirpating the septic uterus, and of prophylactically treating the vagina of pregnant women with antiseptic douches. [The paper is not adapted to short abstract, but should be read by all interested.]

3. Prevention of Ophthalmia.—Ernst believes that as good results can be obtained in the prevention of ophthalmia neonatorum, by the use of a one per cent. solution of nitrate of silver instead of a two per cent. solution, as recommended by Credé. The weaker solution does not irritate the conjunctiva and is equally efficacious.

October 22, 1904.

1. Subcutaneous Hebotomy, By A. DOEDERLEIN.
2. Freezing Points of Maternal and Fœtal Blood and the Amniotic Fluid, By F. d'ERCHIA.
3. The Retention of the Word Midwife, By DAHLMANN.

1. Subcutaneous Hebotomy.—Doederlein reports four cases with good results for mother and child. He recommends the constriction of the pelvis during the operation by means of an aseptic rubber band, to avoid too great a spreading of the thighs during the extraction of the head. He also suggests the preliminary sawing through of the bone when it is plainly evident that the head cannot be extracted without the division of the pelvis.

2. **Maternal and Fœtal Blood.**—d'Erchia differs from other authors in asserting that the freezing point of maternal and fœtal blood is lower than the normal. The differences may be ascribed to variations in the apparatus and to the use of arterial or venous blood by different authors. The osmatic balance between maternal and fœtal blood at the end of the period of expulsion can be present or absent; if absent, it is due to a hypertonicity of the fœtal blood.

RIFORMA MEDICA.

November 2, 1904.

1. The Influence of Experimental Anæmia on Infection, By GIUSEPPE DRAGOTTI.
2. Papillomatous Cutaneous Tuberculosis of the Anal Region, By P. RAMOGNINI, and A. SACERDOTE.
3. Carcinoma of the Large Biliary Vessels, By G. SCAGLIOSI.
4. The Influence of Absolute Milk Diet on the Circulation, By CARLO COLOMBO.

1. **Influence of Anæmia on Infection.**—Dragotti bled animals freely, and afterward injected large amounts of physiological salt solution into their veins. He then infected them with various germs, and noted the effects, comparing these with the results of the same infections in animals that had not been rendered anæmic. He concludes from the results of this research, that anæmia predisposes greatly to infection. Animals which had been rendered anæmic, and which were infected with even the smallest possible fatal doses of virulent cultures, died sooner than other animals similarly infected that had been allowed to retain their normal amount of blood. This shows that in the anæmic animals there was a lack of resistance owing to the subtraction of nutritive and bactericidal substances. The injection of artificial serum, moreover, impeded the absorption of cellular fluids by the blood, and thus interfered with another means of defense. The induction of artificial anæmia by bleeding, and the injection of artificial serum, therefore, induce a state of hydræmia which directly favors infection.

2. **Papillomatous Tuberculosis of the Skin at the Anus.**—Ramognini and Sacerdote report a rare form of cutaneous tuberculosis in which there appeared lesions almost identical with condylomata. The existence of tuberculous lesions in the same person elsewhere in the body attracted the attention of the authors, and the tuberculous nature of the anal lesions was demonstrated on microscopical examination. The patient was a farmer, aged 50 years, who had noted a year before a small pimple at his anus, which gave rise to a great deal of itching but did not cause any pain. On examination he showed a mass of cauliflower structure at the anus, extending from the coccyx to midway over the anoscrotal rhaphe. This growth was one or two centimetres high, oval in outline and ten centimetres in length. It had a livid red color and was moist, covered with a thick and fat secretion. The opening of the anus could not be seen, even when the thighs were outspread. The base of the tumor was hard, but not so hard as that of an epithelioma. The tumor was removed, and the wound healed within twenty days. The diagnosis of papilloma had been made, but on microscopical examination the growth showed, not only tuberculous structure, but also tubercle bacilli.

3. **Cancer of the Biliary Ducts.**—Scagliosi reports two cases of carcinoma of the biliary ducts, and concludes as follows from a detailed study of these cases: The form of carcinoma usually found in the biliary canals is that which is composed of cylindrical cells. The results of the biliary stasis which these tumors induce are, first, ectasias, swelling, and rupture of the biliary capillaries, and the formation of thrombi therein, and subsequently cirrhosis of the liver. There is an abundant formation of elastic fibrous tissue in the interlobular sæpta but this does not extend to the acini, but simply follows the connective tissue tracts which pass within the lobules. The development of elastic fibres grows apace with the growth of the cancer, and this tumor is surrounded by supporting rings of this tissue. The sections of these livers in some respects resemble those of the lower animals, or of newly born mammals.

4. **Influence of Milk Diet on the Circulation.**—Colombo investigated the effect of an exclusive milk diet on the circulation of a healthy person and draws some interesting conclusions as to the effects of this diet on the blood pressure. The only work thus far published on this question is that of Maximovitsch and Rieder, who found that the ingestion of large amounts of certain fluids raises the blood pressure. This they found especially to be true of beer, and next to this of wine, coffee, tea, milk, cocoa, and water. Colombo, however, does not concede the correctness of their conclusions and believes that the instruments which they used were inaccurate. He used Mosso's accurate sphygmomanometer, which graphically records the blood pressure. In a former paper (1899) he showed that the frequency of the pulse and the height of the blood pressure are inversely proportionate to each other. During digestion after meals, the blood pressure is lowered, owing to the dilatation of the abdominal vessels, and at the same time the pulse rate increases, the respiration becomes more frequent, and the temperature rises slightly. The ingestion of large amounts of milk elevates the blood pressure at first, owing to the mechanical presence of increased fluid, and not owing to the simple vasomotor effect of digestion. At the same time the pulse rate is increased, owing to the necessity of the heart to drive more fluid through the arteries, but the temperature is not elevated perceptibly, owing to the lessened heat production in the blood as the result of increased fluid. After the milk has been absorbed, however, there is a slight rise of temperature and a fall of blood pressure. This depression of the blood tension is due to the fact that milk induces diuresis, and is eliminated more rapidly than is necessary to maintain the balance of the organism.

ROUSSKY VRATCH.

October 23, 1904.

1. Tetanic Contraction of the Heart in Warm Blooded Animals as the Result of Electric Irritation, By V. J. DANILEVSKY.
2. Radical Operative Treatment of Appendicitis in the Interval, By R. R. WREDEN.
3. A Case of Gumma of the Conjunctiva, By N. A. FILIPPOFF.
4. On Repeated Tubal Pregnancy, By A. I. ORLOFF.
5. Comparative Studies with the Treatment of Trachoma by Means of Solutions of Bichloride in Glycerin and by Means of One Per Cent. Solutions of Silver Nitrate and of Ichthargan, By V. TH. GORTALOFF.

1. **Tetanic Contractions of the Heart Muscle.**—One of the peculiarities of the heart muscle, as distinguished from other muscles of the body, is said to be its inability to become tetanically contracted, even under the influence of the most severe electrical stimuli. Danilevsky shows in the present research that this is not true, and that the heart muscle of rabbits, isolated under proper conditions, can be made so to contract. The chief difficulty to be overcome is the resistance of the heart to stimuli at the moment of diastole. While tetanic contractions have been obtained in a number of instances in cold blooded animals, no one has hitherto succeeded in obtaining tetanus in the hearts of warm blooded animals. This the author succeeded in doing. He isolated the hearts of rabbits, observing the technics described by Langendorff, and kept these hearts alive by passing through them an appropriate artificial serum solution (Locke's). The apex of the suspended heart was dipped for several centimetres into water, in which were placed the two electrodes. The interrupted current was then used, and it was found that even stimuli of moderate intensity succeeded in causing contractions until a tetanic state was induced. The auricles did not participate in this, but the ventricles alone were seen to assume the tetanic state.

2. **Technics of Operations in the Interval for Appendicitis.**—Wreden believes that the two requisites for success in operating for appendicitis in the interval are, first, the free access to the cæcum through an appropriate incision, and, second, the avoidance of such complications as would lead to an eventration as the result of the stretching of cicatricial tissue. The incisions thus far proposed have the disadvantage, he thinks, of securing only one of the two requisites mentioned—either a free access or security from hernia. He therefore recommends the following method of operation: The incision begins at the end of the eleventh rib, passes vertically downward until it reaches a point two fingers' breadths above the anterior superior spine, when it bends and passes parallel to the ligament of Poupart, until it reaches the margin of the rectus abdominis. The tissues are dissected away from the underlying aponeurosis along this incision. The next cut passes through the aponeurosis of the external oblique, vertically from one end of the cutaneous wound to the other, at a distance of one centimetre from the margin of the rectus. The divided aponeurosis is held apart with forceps, and the anterior layer of the sheath of the rectus is laid open over the same distance as the aponeurosis, along the edge of the rectus. The uncovered rectus is drawn aside, and the posterior layer of the sheath is incised at one and a half centimetres from the margin of the rectus by means of a vertical cut which passes directly into the peritoneal cavity. The incised peritonæum and the edges of the divided sheath of the rectus are taken up together with forceps, and the cæcum will be seen in the opening, so that the appendix can be easily found. The further steps in the operation consist in loosening the adhesions, bringing the appendix and cæcum into the wound, amputating the ligated appendix, and inverting it into the cavity of the cæcum by means of a purse string suture. The wound is then sutured as follows: The peritonæum is first closed, together with the posterior layer of the rectus sheath; the rectus is then replaced in position over this row of sutures, and the second tier of sutures, including the anterior layer of the rectus sheath and the aponeurosis of the transverse and internal oblique, is closed. The third tier then includes the aponeurosis of the external oblique, and with its median border the median margin of the sheath of the rectus is taken up in the sutures. Finally, the skin is sutured. The object of this method of suturing the incisions is that each tier should be in a different plane, so that if one gives way, the others will oppose the formation of a hernia. The author performed operations for appendicitis according to this method in seven cases, with good results.

3. **Gumma of the Conjunctiva.**—Syphilis very rarely affects the conjunctiva. Among 1,385 cases of syphilis of the eye, Alexander only noted one of gumma of the mucosa referred to. Boyard collected in his thesis all the cases of gumma of the conjunctiva reported in literature, and concludes that these lesions occur in the conjunctiva only in cases of acquired syphilis, and usually appear on the ocular conjunctiva, very rarely on the palpebral. The case reported in the present article by Filippoff occurred in a woman aged twenty-six years, who had a painful and steadily growing tumor on the conjunctiva of the upper lid of the left eye. At first he noted a small nodule on the eyelid, and after three months this became an ulcer, which slowly healed, leaving a scar. This, however, was not the end, for the growth reappeared and discharged purulent material which flowed into the conjunctival sac. The eyelid on examination showed a hard tumor which was close to its margin. On everting the lid an ulcer was disclosed, with a dirty surface, and a hard base, flat, with slightly raised edges that were well defined. The ulcer was very painful on pressure. The author notes, in commenting on this case, that this lesion was very similar to a primary sore and was at first taken for a chancre, but the history of previous syphilitic lesions and the traces of a tubercular syphilide on the skin of the patient, were conclusive evidences that the conjunctival affection was a gumma. In the neighborhood of the gumma the conjunctiva showed three distinct spots in which a gummatous process was about to begin.

4. **Repeated Tubal Pregnancy.**—Orloff found that reports of recurrent tubal pregnancies are rare in literature. He relates the history of one case, in which there were two pregnancies, both extrauterine. The microscopical findings in the removed Falloppian tube in this case showed that the cause of the tubal pregnancy in both instances had been a narrowing of the lumen of the tube, as the result of adhesions remaining from a salpingitis.

5. **Medical Treatment of Trachoma.**—Gortaloff tried a variety of medical measures in the treatment of trachoma, including the use of mercuric chloride, silver nitrate, and ichthargan. While, in general, he found ichthargan useful, its use is, in his opinion, only an accessory to other methods of treatment in trachoma. In neglected cases the treatment had to be interrupted, in order to return repeatedly to copper sulphate, tannin, and other older remedies between courses of treatment of ichthargan.

BOSTON MEDICAL AND SURGICAL JOURNAL.

December 1, 1904.

1. On Certain Unavoidable Calamities Following Surgical Operations, By MAURICE H. RICHARDSON.
2. Pulmonary Tuberculosis and Sanatorium Treatment, By VINCENT Y. BOWDITCH.
3. Mechanical Restraint and Seclusion of Insane Persons, By CHARLES W. PAGE.
4. Pott's Disease, Treatment at a Late Stage. Remarks on the Pathological Anatomy, By E. W. TAYLOR.

1. See this *Journal*, Vol. LXXX, page 523.

2. **Pulmonary Tuberculosis.**—Bowditch's paper is based on a study of the results that have been obtained at the Sharon and Rutland Sanatoria. The author holds: (1) That sanatorium treatment is to be preferred to the so called home treatment of tuberculosis. This for two chief reasons: first, because more cases will do better in a climate which permits of fairly continuous outdoor life, and, second, because patients can be more easily controlled. (2) Tuberculosis need no longer be classed as a hopeless disease. We shall probably soon be able to control it as effectually as we now control smallpox or plague. (3) Of all cases admitted to the sanatoria mentioned fifty per cent. leave with the disease arrested. Of the incipient cases seventy to eighty per cent. leave with the disease arrested.

3. **Forcible Restraint of the Insane.**—Page condemns in unqualified terms all forms of mechanical restraint or of seclusion as necessary adjuncts to the effective control of the insane. In his own service at Danvers he has been responsible for the treatment and custody of over six thousand insane persons, not one of whom has ever been restrained with mechanical appliances by his orders or with his knowledge.

4. **Pott's Disease.**—Taylor reports a case of Pott's disease which developed in a man of forty-five, of non-tuberculous history, and only a few weeks after an attack of typhoid fever. The case, including the necropsy findings, is reported in very great detail. The author believes the case remarkable for the following reasons: First on account of the suddenness of the onset and the age of the patient; second on account of the severity of the injury to the cord and the very marked predominance of motor over sensory symptoms in spite of extensive degenerations in sensory areas; third, because improvement took place under treatment.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

December 3, 1904.

1. Federal Control of Drugs, By H. W. WILEY.
2. The Forthcoming Pharmacopœia, By JOSEPH P. REMINGTON.
3. The Relation of the Physician to Proprietary Remedies. How May Substitution Be Avoided and the Desired Preparation Obtained Without Unduly Advertising the Manufacturer? By WILLIAM J. ROBINSON.
4. The Ætiology and Pathology of Gout (*Concluded*), By THOMAS B. FUTCHER.
5. The Uric Acid Delusion and the Prevention of Gout, By WOODS HUTCHINSON.
6. Lacerations of the Pelvic Floor. The Principles Involved in Their Primary and Secondary Repair, By JAMES HAWLEY BURTENSHAW.
7. Treatment of Complete Uterine and Vaginal Prolapse, By FREDERICK HOLME WIGGIN.
8. Types of Children (*Concluded*), By W. S. CHRISTOPHER.

3. **Proprietary Medicines.**—Robinson summarizes his advice regarding proprietary medicines thus: (1) The prescribing and using of preparations, the composition of which is unknown, is to be condemned unequivocally. It is unscientific, unethical, and is bound to react injuriously on the physician and the public alike. (2) The physician who refuses to use a thoroughly established remedy, of known composition, merely because it is proprietary, is guilty of narrow minded fanaticism, and he is not doing the best by his patients. (3) Substitution does exist, and is a serious evil, in some localities especially. (4) The abolition of substitution lies to a great extent in the physician's own hands, and he can accomplish it by making himself familiar with the physical characteristics of the remedies that he prescribes; by patronizing pharmacists in whom he has perfect confidence, and by exposing those who, he is certain, are incorrigible substitutors. (5) The physician is guilty of encouraging substitution by ordering every new mixture that is brought to his attention by circulars, drummers, and venal journals; but while this is an explanation of the prevalence of substitution, it is no justification for it. (6) Prescribing in original packages is an evil, but being a lesser evil than substitution, it is often justifiable.

4. **Gout.**—Futcher concludes a very lengthy paper on gout as follows: " Heredity, overindulgence in malt liquors, poor food with bad hygienic surroundings or overeating with insufficient exercise, and lead intoxication are undoubtedly important predisposing ætiological factors in the production of gout. An analysis of 54 cases treated in the medical wards of the Johns Hop-

kins Hospital shows that the overuse of fermented beverages seems to be the most potent factor in this country. Gout in the United States appears, therefore, in the majority of cases to be acquired or 'free-hold,' rather than 'copy-hold' or inherited. Studies of the metabolism in gout have as yet afforded no satisfactory explanation for the causation of the disease. There seems very little doubt but that it is due to disturbance in the metabolism of the 'endogenous' and 'exogenous' purins. As yet there is not sufficient experimental evidence to warrant us in abandoning the theory that the manifestations are in large part due to disturbances in uric acid metabolism. Practically all researches agree in showing that the blood in gout contains a marked excess of uric acid, and the balance of opinion is in favor of the view that this excess is due to deficient excretion on the part of the kidneys. The alkalinity of the blood apparently is not diminished, as Garrod supposed. The joint manifestations are essentially due to the deposition of the uric acid combinations of the blood in the form of the crystalline sodium biurate. Whether a local tissue necrosis is primary or secondary to this deposition is a question still in dispute. Nephritis, usually of a chronic interstitial type, arteriosclerosis, myocarditis, pericarditis, and emphysema are the other most frequent pathological findings."

5. **Gout.**—Hutchinson first pays his respects to the "uric acid delusion." He proposes to define gout as "any form of mild, chronic, intoxication occurring in an individual of a medium grade of resistance and resulting in the deposit of uric acid, or the urates in the tissues or urine." In other words, it is a symptom name, pure and simple. The most important thing to do before treatment is undertaken is to locate the source of the intoxication. It may come from the teeth, from the nose, or from some other point within the body, or it may be an expression of poison from the outside, such as lead. In the majority of cases it is probably of gastrointestinal origin. It is for this reason that most of the remedies recommended for gout usually do good. Diet is of not much importance, provided that it is capable of adequately nourishing the patient without giving rise to intestinal fermentation. Water should be used freely, "internally, externally, and eternally."

6. See this *Journal*, Vol. LXXX, page 91.

7. See this *Journal*, Vol. LXXX, page 92.

MEDICAL NEWS.

December 3, 1904.

1. Second Note Relative to the More Efficient Utilization of the Spark Gap Radiations, By HENRY G. PIFFARD.
2. Extrauterine Pregnancy: Its Diagnosis. Report of Cases, By ISAAC IVAN LEMANN
3. Pancreatitis, By W. D. HAGGARD.
4. Laundry Hygiene, By IRA S. WILE.
5. Some Remarks on Diphtheria Bacilli, By E. ANDRADE.
6. Intermittent Claudication and Analogous Phenomena (Angina Pectoris, etc.), By ARTHUR J. PATEK.
7. Misocainia in Medicine, By ACHILLES ROSE.
8. A New Case of Chloroma with Leucæmia, with a Study of Cases Reported Since 1893 (*To be continued*), By GEORGE DOCK and ALDRED SCOTT WARTHIN.

1. **Spark Gap Radiation.**—Piffard illustrates his ultraviolet ray lamp and his spark ionizer. Both these instruments are to facilitate the administration of the "rays" which the author announced, last June, he had discovered. He now asserts that these new rays are similar to the x ray or to radium in their action. He describes in detail the technics which should be used in their therapeutical application.

2. **Extrauterine Pregnancy.**—Lemann reports two cases of extrauterine pregnancy. From his experience with this condition he concludes: (1) This disease is a far more frequent one than most of us now believe it to be. (2) By maintaining an attitude of alertness and by carefully investigating all conditions of menstrual irregularities and colicky pains, we shall find ourselves warranted in establishing an accurate diagnosis and saving the lives of some patients who would otherwise perish. (3) That when the diagnosis is obscure in the presence of a boggy or fluctuating mass to either side of the uterus, we are justified in doing an exploratory operation either through the abdomen or the vaginal fornix.

3. **Pancreatitis.**—Haggard writes a formal paper on the various forms of pancreatitis. The ætiology, symptomatology, diagnosis, and treatment are discussed in a routine manner. The paper is divided into four general sections: (1) Acute pancreatitis; (2) fat necrosis; (3) subacute pancreatitis; (4) chronic (interstitial) pancreatitis.

4. **Laundry Hygiene.**—Wile has studied the laundry as a possible source of disease (1) to the employees and (2) to its patrons. He concludes that "laundering appears to be an efficient hygienic method of promoting cleanliness without marked danger to patron and with comparative safety to employee."

6. **Intermittent Claudication.**—Patek had two objects in view in writing his paper. First, "the report of a rather infrequent symptom group that occasionally attends a disease of great frequency, general arteriosclerosis, but more often exists independent of it," that is to say, intermittent claudication. Second, to dilate in some detail upon the more recent inquiries into the causation of stenocardiac attacks of which angina pectoris is the best known type. One case of intermittent claudication is reported. This symptom, which was first rcognized by Charcot, consists in a cramp and loss of power in the lower limbs, coming on without premonition and of brief duration. It is due to occlusion, temporary, of the arteries. It occurs either in generalized arteriosclerosis or, as in Charcot's first case, in cases where an artery is partially occluded, owing to traumatism. A diagnostic feature is absence of the pulse in the dorsalis pedis or in the terminal

branches of the tibials. The condition is therefore dependent on partial occlusion plus spasm.

7. **Misocainia.**—Rose by misocainia means the deep rooted inclination of mankind to combat new ideas. Examples from medical history are given, notably the treatment received by Semmelweis from the majority of the profession.

AMERICAN MEDICINE.

December 3, 1904.

1. The Presence of Tubercle Bacilli in the Urine of Patients Suffering with Pulmonary Tuberculosis, By RANDLE C. ROSENBERGER.
2. The Röntgen Treatment of Malignant Disease of the Breast, By CHARLES LESTER LEONARD.
3. Review of Other Malignant Cases, By CHARLES LESTER LEONARD.
4. The Status of Our Knowledge of Opotherapeutics, By D. H. BERGEY.
5. Concerning the Suppression of the Acetone Bodies in Diabetics, By HEINRICH STERN.
6. A New Reflex: Paradoxical Flexor Reflex. Its Diagnostic Value, By ALFRED GORDON.
7. Operative Technics in Stone in the Ureter, By J. P. CRAWFORD.
8. The Present Status of Pathology, By F. ROBERT ZEIT.

1. **Tubercle Bacilli in the Urine.**—Rosenberger tested the urine of twenty-five patients suffering from pulmonary tuberculosis for the tubercle bacillus. In three cases the results were positive. Details of the manner in which the experiments were conducted are given in full. The author concludes that the reputed frequency of the tubercle bacillus in the urine of patients suffering only from the pulmonary form of the disease has been much exaggerated.

2 and 3. **The Röntgen Ray.**—Leonard in his first paper urges the use of the x ray in the treatment of all cases of malignant disease of the breast. The Röntgen treatment should supplement and not supplant surgical intervention. Twenty-six cases are reported. They show that only when the disease is taken early is the present technic of Röntgen therapy able to cope with it and prevent its rapid progress. In his second paper the author reports fifteen cases of sarcoma and carcinoma situated in various parts of the body, treated by the x ray.

4. **Serum Therapy.** — Bergey classifies and values the different sera used in therapy as follows: (1) The antitoxic sera. There are only two in general use, the diphtheria and tetanus antitoxines. All are familiar with the first. The apparent inefficiency of tetanus antitoxine is probably due to the fact that to obtain the best results it must be administered early and in large doses. (2) The bactericidal immune sera. The author discusses the typhoid, dysentery, and tuberculosis sera. The results obtained from the use of the first two have been disappointing. Maragliano's reports would seem to indicate that the tuberculosis serum is deserving of careful consideration. (3) The immune sera which are not bactericidal. The best known are the pneumococcus, the staphylococcus, and the streptococcus sera. Experience has shown that one should not expect too much from the therapeutical application of these sera.

MEDICAL RECORD.

December 3, 1904.

1. The Treatment of Epilepsy in Connection with Auto- and Heterotoxis, By ALLAN MCLANE HAMILTON.
2. Tachycardia and Its Relation to Injuries, By U. F. MARTIN.
3. Two Cases of Henoch's Purpura; with Remarks Upon the Gastrointestinal Lesion, By OLIVER C. SMITH.
4. A Few Remarks on Infant Feeding; with a Simple and Safe Method for the General Practitioner, By FRANCIS H. GLAZEBROOK.
5. Physical Examination, Therapeutics, and Results of Modern Medicine. A Plea for More Accurate Physical Diagnosis, By WARREN SCHOONOVER, JR.
6. Acute Appendicitis Occurring on the Eighth Day of a Typhoid Fever. Operation. Recovery, By GEORGE HERBERT WILLIAMS.

1. **Epilepsy.**—Hamilton discusses chiefly that theory of epilepsy which assumes that a large number of those cases known as idiopathic are due to the presence of cholin in the circulation. Cholin results from tissue disorganization in the central nervous system. Intestinal intoxication as well as other forms of autointoxication is also capable of aggravating the epileptic tendency. The author claims encouraging results from treating patients in accordance with the views he sets forth. His summarized advice regarding treatment follows: (1) We should, besides every measure that will favor elimination, regulate the dietary so that the idiosyncrasies of the individual shall be taken into account, but nitrogenous food shall be interdicted as far as possible. No large quantity of food shall be taken at any one time. (2) If intestinal autotoxis exists, cholagogues and appropriate ferments, as well as antiseptics, shall be prescribed. (3) Everything should be done to prevent the lighting up of gross intracerebral pathological processes, and the resulting formation of cholin. The equilibrium of the arterial pressure should be everywhere maintained. (4) The bromide should be given only in doses sufficient to diminish the activity of the cortical motor cells.

2. **Tachycardia.**—Martin asserts that injury or shock to the body surface, specially about the chest and neck, is capable of giving rise to disturbances of the heart's action. It is to such neuroses of the heart that the author devotes his paper and specially to that form known as tachycardia. One personal case is reported at length and abstracts are given of nine cases of various kinds of cardiac disturbances which have followed blows.

3. **Henoch's Purpura.**—Smith operated on both his cases under the impression that they were suffering from the effects of an abdominal injury. One of the patients died and one recovered. While both patients were operated upon in consequence of a mistaken diagnosis the author

does not think they were injured. From a review of the literature and from his recent experience he is inclined to believe that "an exploratory laparotomy in cases presenting grave abdominal symptoms, even though there does exist purpura at the time, would be not only permissible, but decidedly indicated, and the chief point I wish to make is that this disease, known at present as Henoch's purpura, is not to be regarded as entirely a medical disease, but that the intraabdominal conditions sometimes call for exploration, and for further operative procedures when lesions are discovered."

LANCET.

November 19, 1904.

1. Some Practical Points in Abdominal Surgery; with Special Reference to a Simple Technics for Appendicectomy and Intestinal Anastomosis, By F. H. Wiggin.
2. Infantile Syphilis, By G. F. Still.
3. Ricardus Anglicus and the Teaching of Anatomy in the Middle Ages. (*Fitzpatrick Lectures: II*), By J. F. Payne.
4. Clinical Observations on the Anæsthetic Effects of Methyl Oxide, Ethyl Chloride, and the So Called Somnoform, By F. W. Hewitt.
5. Non-fatal Rupture of Aortic Aneurysm, By C. H. Melland.
6. On the Action of Perchloride of Iron in Blood Poisoning and Other Disorders, By P. W. Latham.
7. Case of Encephalitis Cerebelli, By F. Taylor.
8. Hill Diarrhœa in the Plains, By P. A. Nightingale.

2. **Infantile Syphilis.**—Still states that a striking feature in the family history of syphilitic children is the frequent absence of any history of syphilis in the mother. The syphilitic fœtus, as its disease progresses, develops an antitoxine which imparts immunity to the mother. The various modes of transmission can be arranged according to order of frequency, as follows: (1) father syphilitic, mother healthy; (2) father and mother syphilitic; (3) mother syphilitic, father healthy; and (4) mother acquired syphilis during pregnancy. The mode of transmission apparently does not make any difference to the disease in the infant, either in the character or the severity of the symptoms. The later the stage of the disease in the parents the less the severity of the symptoms in the child. Inherited syphilis rarely manifests itself at birth, but certain symptoms are very suggestive: among them are pemphigus, jaundice the result of intercellular cirrhosis, snuffles, enlargement of the liver and spleen, and certain changes in the fundus oculi. An unusually abundant crop of dark hair is a curious association of congenital syphilis at birth. Spontaneous hæmorrhages in the newly born due to syphilis are very rare. The symptoms of infantile syphilis in the order and frequently with which they occur, are as follows:

Marasmus. This is noticeable in the great majority of syphilitic infants and frequently dates from a few days after birth. There are two forms of wasting: one is that which accompanies any infantile illness, and which ceases when the symptoms of syphilis subside: the second is a progressive marasmus which is often the first symptom to appear, and which continues even after all the other symptoms have disappeared under mercurial treatment. It is independent of any digestive trouble, and while it sometimes yields to mercurials, more often progresses to a fatal termination. *Snuffles.* This symptom occurs almost always within the first three months, and is present in seventy per cent. of the cases. The condition varies from a slight stuffiness of the nose up to a profuse discharge of pus. Depression of the bridge of the nose and ozæna result in only a very small minority of the cases. Adenoids and simple catarrh are often mistaken for snuffles. *Skin Eruptions.* These generally appear soon after the snuffles and almost always within the first three months. The most characteristic eruptions may be grouped as follows: 1. Macular, small reddish-brown areas, present on any part of the body, but particularly on the middle third of the face. 2. Erythematous, diffuse in distribution, and occurring especially about the perinæum and inside of the thigh. 3. Desquamative: either of the preceding may be associated with branny desquamation, but apart from these there is a profuse desquamation of the palms and soles which is very characteristic of congenital syphilis. 4. Fissures, usually radiating outwards from mucous surfaces—e. g., the mouth and anus. These occur early, and leave lifelong scars. 5. Bullous, the syphilitic pemphigus, which is present at birth. 6. Condylomatous; moist, warty, flat topped patches, situated in moist parts. 7. Skin affections exactly resembling such ordinary non-syphilitic lesions as eczema and erythema intertrigo. Following the characteristic abundant crop of hair already mentioned, there is sometimes a thinning of the hair. Onychia is also very characteristic of infantile syphilis, and is usually associated with some cutaneous lesion. *Enlargement of the Spleen.* When the spleen extends an inch below the costal margin, it has some value as confirmatory evidence. *Eye Affections.* Iritis or chorioiditis are present in fifteen per cent. of the cases. *Laryngitis:* this is one of the most frequent of early symptoms. *Epiphysitis:* present in eleven per cent. of the cases. *Orchitis:* in eight per cent. It differs from tuberculous disease in that the body of the testis is affected first and chiefly, whilst the epididymis is seldom appreciably involved. *Brain Affections.* Eight to nine per cent. of cases show idiocy, pachymeningitis with cortical sclerosis, hydrocephalus, and cerebral palsies. *Anæmia* of a profound degree is sometimes a result of infantile syphilis. *Parrot's Nodes and Craniotabes.* The author does not think that either of these symptoms can be taken as evidence of syphilis. As to the contagiousness of inherited syphilis, he thoroughly agrees with Coutts, "that it is occasionally contagious is certain, but it is equally certain that the virulence of such contagion has been grossly and vastly overestimated. Parents should be warned of the danger, especially as long as skin lesions persist. In the treatment of infantile syphilis there is little choice of drugs; the only question is in what form should mercury be administered, in what dose, and for how long. The author prefers gray powder. Intramuscular or intravenous injections are wholly unsuitable for infants. With epiphysitis or gummata iodides should be used.

6. **Perchloride of Iron.**—Latham calls attention to the great value of perchloride of iron in blood poisoning, erysipelas, scarlet fever, diphtheria, etc., and ascribes its beneficial effects to the presence of free chlorine. But the remedy must be carefully used; large doses not infrequently increase the fever and set up intestinal irritation, palpitation, and headache.

BRITISH MEDICAL JOURNAL.

November 19, 1904.

1. Ricardus Anglicus and the Teaching of Anatomy in the Middle Ages. (*Fitzpatrick Lectures: II*), By J. F. PAYNE.

(*Seventy-second Annual Meeting of the British Medical Association*).

Section of Dental Surgery.

2. President's Address, By E. A. BEVERS.
3. Discussion on Oral Sepsis as a Cause of Disease in Relation to General Medicine, By W. HUNTER, K. W. GOADBY, R. J. GODLEE, and Others.
4. Fulminant Caries Alveolaris Specifica, By J. ARKÖVY.
5. A Case of Melanotic Sarcoma in a Child of Three Months, By W. H. BATTLE.
6. The Influence of the Growth of Bone on the Positions of the Teeth, By J. G. TURNER.
7. The Care of Children's Mouths, By S. SPOKES.
8. Physical Degeneration in Relation to the Teeth, By J. S. WALLACE.

Section of Anatomy.

9. A Suggested Method of Mounting Anatomical Specimens for Museum Purposes, By C. J. PATTEN.
10. A Contribution to the Origin of the Embryonic Leucocytes, By J. H. BRYCE.
11. Discussion on Giants and Dwarfs, By D. J. CUNNINGHAM, B. C. A. WINDLE, H. GILFORD, and Others.
12. Craniocerebral Topography, By R. J. A. BERRY, and H. D. SHEPHERD.
13. Observations on the Development and Morphology of the Tail, By A. H. YOUNG, and A. ROBINSON.
14. The Arrangement of the Maternal and Fœtal Glycogenic Cells in the Placenta of the Mouse, By J. W. JENKINSON.

Section of Obstetrics and Gynæcology.

15. Three Cases of Chorion Epithelioma, By R. F. C. LEITH.
16. An Early Case of Chorion Epithelioma Following Hydatidiform Mole: Vaginal Hysterectomy: Recovery, By S. SAVAGE.
17. A Case of Chorion Epithelioma, By C. MARTIN.
18. A Case of Malignant Chorion Epithelioma, By T. WILSON.
19. A Case of Deciduoma Malignum (Chorion Epithelioma), By C. W. WINDSOR, and J. S. FAIRBAIRN.

3. **Oral Sepsis.**—Hunter defines oral sepsis as the various effects of streptococcal and staphylococcal infection found in the mouth. The chief problem with regard to pyogenic infections at the present time is not their nature but (1) the channels by which the infection gains entrance to their respective sites: (2) the conditions under which they attain the virulence necessary for them to take root. The author holds that if oral sepsis could be excluded, the other channels by which "medical sepsis" gains entrance into the body might almost be ignored. Sepsis as an important and prevalent cause of disease would almost cease to exist. Besides the conditions obviously caused by pyogenic infection, there are various toxic effects in the blood, nervous system, and kidneys. Among them may be mentioned severe rashes, obscure cases of fever, septicopyæmia, general purpuric hæmorrhages, severe nervous effects, such as headaches, melancholia, etc., varying degrees of severe anæmia presenting generally the features termed pernicious, and finally certain forms of nephritis. Gastric sepsis is an important factor in the causation of gastric catarrh, gastric erosions, gastritis, gastric atrophy, and gastric ulcers. In scarlet fever there is a close connection between the severity of the initial angina and the risk of adenitis occurring later on. In amygdalitis also there is a relation between the severity of the lesion and the degree of oral sepsis previously existing. As regards the relation of oral sepsis to Addison's anæmia, the sepsis precedes the anæmia often for many years; and by the time the anæmia declares itself the sepsis may be and often is less than it was, or may even, from the most intense pallor and absence of reaction, appear absent. Goadby has studied the bacteriology of the mouth and concludes: 1. That a certain degree of virulence may be possessed by an organism living an apparently saprophytic existence in the mouth. 2. That inflammatory conditions have the effect of increasing the number of species as well as the total numbers of bacteria present. 3. That some sort of selection apparently takes place, but whether due to symbiosis or not is at present impossible to say. 4. That mouth bacteria do at times gain access to the general blood stream. 5. And that, finally, the potentiality for disease of oral sepsis receives considerable support from even a preliminary survey of its bacteriology.

13. **Development of the Tail.**—Young and Robinson have studied the development and morphology of the tail of vertebrate animals, and reach the following conclusions: 1. The tail is not merely a backward prolongation of the body, consisting of the same dorsal and ventral parts. 2. The tail is produced by the energy of a growing point which takes part in the formation of the body, and after that is completed it expends its remaining energy in the formation of the tail. 3. The segments of the tail are not equivalent to the segments of the body, for their nervous portions are rudimentary or absent, and they are devoid at all periods of a cœlomic space. 4. The posterior segments of the tail develop neither spinal nor sympathetic ganglia nor nerves, and their neuromeres never attain complete development. 5. Many of the muscles of the tail are not supplied by the neuromeres and ganglia of their segments, but by the nerves of more anteriorly placed segments. 6. The blood vessels of the tail are not prolongations of the primitive blood vessels of the embryo, but of its segmental somatic branches. 7. The tail is, in the widest sense, an appendage to the body, and its nervous and vascular supply are dependent on the nerves and vessels of the body which have been prolonged with it.

Letters to the Editor.

THE TREATMENT OF VARICOSE VEINS AND ULCERS.

WAXAHACHIE, TEXAS, *November* 18, 1904.

To the Editor,

I wish to present a treatment for varicose veins and ulcers that has been absolutely an entire success in the four cases in which it has been employed. The operation is the sum and the result of the operations of Trendelenburg, Madelung, Kocher, Schede, Moreschi, Mariani, Reclus, and Durand. A circumferential incision of the thigh at the junction of the middle and lower thirds. Why? The internal (long) saphenous vein, extending from the foot to the saphenous opening, has from two to six valves, most of which are in the thigh, and is always culpable. The external (short), which empties into the popliteal vein, has from three to nine valves (one of which is at the junction) and is nearly always implicated through the collaterals, but is never culpable. Do not sever the short vein. Again, the saphenous nerves of the skin of the leg are intermuscular in the thigh and are needed for innervation. Spare them. Why not in the neighborhood of ulcers? Because inflammation has produced adhesions between the veins and the integument that render difficult the dissection and ligature of the veins, some distance from the incision, in order to guard the integrity of the suture. Why not near the saphenous opening? Because the wound is larger and the varices are seldom discomforting above the incision suggested, and the cutaneous nerves are severed nearer their origin. Why not between the incision in question and the knee? Because the enormous contractility of the popliteal integument causes distressing tension on the sutures. Cut all tissues to the aponeurosis. Dissect the larger veins two to three centimetres above and below before ligation and ablation. Do the operation without hand contact. Flex the knee, dress dry, and bandage. Crutches may be used in four days and the bandage reapplied in two weeks for vein support only.

I have seen many ulcers healed and comfort rendered temporarily by local medicines and mechanical support and "ringing" (circumcising) the ulcer through the integument. I have never seen the varicosities relieved, and the ulcers invariably recur. Tying the saphenous, semicircumferential incisions, and longitudinal excision, however extensive, will by a good majority fail, for there will develop veins even to the size of the internal saphenous vein that are not laid down in anatomical nomenclature. They will maintain and perpetuate the original condition of blood and lymph stasis. The only relic of the operation is a skin garter at the site of incision, and that is not on exhibition. JOHN RODMAN.

Northern Medical Association.—The following was the programme of the meeting of the Northern Medical Association, held on Friday, November 25th: A paper on the Treatment of Alcohol and Drug Addiction, by Dr. Francis X. Dercum.

SANATORIA FOR CONSUMPTIVES.

245 BANK STREET,
OTTAWA, CANADA, *November* 24, 1904.

To the Editor,

Sir: In your issue of November 19th I was much interested in a sketch by Dr. Masten, of Chico, New Mexico, of how to accommodate and care for tuberculous patients in tent cottages. Allow me to express myself on the subject.

Having spent considerable time in New Mexico and Colorado, I must say that during the spring months I experienced some very severe sand storms on each side of the main range of mountains in northern New Mexico.

So bad, indeed, were they that it was almost impossible to live out of doors. Ranchers and others who were obliged to be out of doors during stormy weather were hardly recognizable; all had extremely bloodshot eyes and white men assumed the Mexican complexion.

Notwithstanding such conditions, there are spots in the foot hills where sand storms are unknown, where grow enormous pines, and where numerous cold, clear mountain streams are to be found. These, to my mind, are the spots in which to establish the accommodation necessary to the consumptive.

The writing room, as I understand it in Dr. Masten's plan, is also the recreation room. To me this seems rather too close to the bath room and closets.

May I ask also where the water supply comes from, and how it is heated in large quantities for bathing purposes? We must not forget that in many parts of New Mexico and Colorado the water is highly alkaline. Lots of water, too, is necessary for flushing closets.

I fail to see what arrangement there would be in Dr. Masten's plan for feeding his people. Where would the dining room and kitchen be placed? Some of the questions we must ask ourselves before establishing a sanatorium of any kind are: Are we near a telegraph station? Can we get fresh meat, milk, and butter daily? Can we have a liberal supply of good fuel, wood, or coal, for we must have some means of warming each patient's room during cold snaps? Is ice obtainable?

If we have no direct water supply from some reservoir up the side of a hill or mountain, we shall have to put up a large tank to be filled by a wind mill pump, steam pump, or hot air pump.

I might add, too, that, except in the towns of New Mexico, it is difficult to have a constant and reliable delivery of good dairy products and of meat, saying nothing of vegetables, a very important feature in the establishment of any hospital. JULIUS E. KLOTZ.

Preparations of Nickel Bromide appear to be again coming into favor in the treatment of epilepsy, if we are to judge by reports from French sources. This salt of nickel was extensively tried some fourteen years ago at the City Asylum for the Insane, as it was then called, on Ward's Island, but with negative results.

Proceedings of Societies.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Meeting of November 3, 1904.

The President, Dr. Richard C. Norris, in the chair.

Rupture of the Trachea During Labor.—Dr. Charles A. Service (by invitation) reported the following case: Mrs. A., a primipara, æt. twenty-nine. Labor proceeded in an apparently normal manner, and the uterine contractions were no more severe, nor did the patient complain more, than is ordinarily seen during a normal labor. Finally, deeming the application of the forceps necessary, the physician left the room to prepare for the same, when he was hastily summoned by the nurse, who said "the patient had suddenly during the pain begun to swell about the left side of the neck and face." Upon examination the subcutaneous tissue from the sternoclavicular junction to the angle of the mouth was found to be markedly emphysematous and painful on pressure. This condition increased with each pain. An anæsthetic was administered and delivery effected as speedily as possible. The rupture was not followed by shock. The emphysema finally extended to the entire trunk and both arms, and the eyelids, especially the left, were distended to the extent of entirely obscuring the vision. By the eleventh day the swelling had entirely disappeared, absorption being apparently favorably influenced by the application of hot alcohol two or three times daily.

Dr. Roland G. Curtin cited the following case of emphysema of the chest, neck, and face occurring during labor: Mrs. K., æt. thirty-two, a primipara, seen in consultation July 27, 1901. Labor began at 5 p. m., July 24th. The first stage was rather mild; much retching, but no vomiting. The patient was delivered at 6 a. m. on July 25th. The entire labor was easy and caused no unusual amount of muscular effort. About half an hour before delivery it was noticed that the patient's face was swollen. Examination showed that there was distinct crackling under the skin of the face. On the afternoon of the same day her left eye was closed. The whole chest, except the mammary glands, was infiltrated. The anterior neck, face, upper eyelids, but not the forehead, were crepitant. The back of the head and neck were tender and red. She had no cough. On the second day the left cheek was red and so distended as to closely resemble an erysipelatous inflammation. The least exertion, coughing, taking a long breath, or becoming at all excited caused a smothered feeling and a sense of constriction in the neck and at the upper part of the sternum. Deglutition caused pain and nausea. The respirations were shallow and painful, and this was followed by mild nausea. He found her with her face swollen to the eyebrows, but not above; both lids were puffed, worse on the left side, as was the left cheek. The nose and ears were not affected. The neck and whole chest, except the mammary glands, were swollen and crepitant. The condition was most marked on the cheeks, jaw, neck, sternum, and base of the chest anteriorly. On auscultation there was heard a crackling. There was a harsh blowing sound at both apices, more pronounced at the left, where the symptoms seemed to originate. The urine was always normal. On July 27th the face was still swollen on the left side. The eyes were well opened; there was slight crepitus over the sternum and the lower part of the neck and jaws. She was cheerful. There was soreness at the middle of the sternum. Swallowing caused no discomfort; the respiration was free and easy. The pronounced reddish discoloration of the previous day at the back of the neck was scarcely perceptible. There was an uneventful recovery.

Dr. E. P. Bernardy said he had never seen a case in his practice. After a long and difficult labor the patient's face might become swollen and crepitant under the finger, but he had not considered that a condition of fractured trachea.

The President had seen two cases of this accident. In 1897 a patient at the Preston Retreat, at the beginning of the first stage of labor, with the first bearing down effort, suddenly exclaimed that something had broken in her throat, and shortly thereafter there appeared symptoms similar to those in Dr. Service's case, though not so marked. The accident had no effect on her puerperal convalescence. In the event of this accident it was wise to administer an anæsthetic at once and prevent any further bearing down efforts and more extensive injury, thus limiting the entrance of air to the subcutaneous tissues. In the other case the swelling was unilateral. In this case he also at once delivered the patient with the forceps, and there were no complications.

Dr. Barton Cooke Hirst had seen only one case of rupture of the trachea, and that was a comparatively mild one. The deformity in his case was not great, but the crepitation was quite marked. He agreed that one ought to deliver the patient as quickly as possible with the forceps. In his case, in a few days after delivery the air was absorbed. The case was of minor grade and did not compare in severity with the one described by Dr. Service.

Central Rupture of the Perinæum.—Dr. William R. Nicholson reported a case of this rare accident during labor. The rupture was of about the size of half a dollar and occurred just in front of the anus. The author ascribed its causation to a condition of marked overflexion of the head, associated with a relatively narrow symphysial arch. The head, in other words, maintained the attitude and position normal for its passage through the inferior strait after it had passed that plane and reached the perinæum. The cause of this persistence in the flexion of the head was, in the opinion of the author, some abnormity in the function of the levator ani muscle, which either prevented head extension or did not present sufficient resistance to produce it. The author believed that the first alternative was the true explanation; that there was a spasmodic condition of the levator which, by constricting the sinciput, maintained the abnormal flexion until the time of the occurrence of the perforation.

Dr. Nicholson regarded the signs which should lead one to expect such an accident to be great distention and thinning of the perinæum, associated with posterior situations of the presenting part as a whole, i. e., an approach of the presenting part to the rectum, together with an exaggerated degree of flexion of the presenting part.

The preventive treatment, he said, consisted in section of the perinæum in the median line when rupture threatened, followed by extraction of the head by the forceps or a finger in the rectum.

Dr. **Roland G. Curtin** referred to a case having some similarity to that of Dr. Nicholson. He had been called to see a girl of eighteen in her first confinement, who had been in labor two hours. He slipped his finger along the distended perinæum and felt something like a growth. Upon exposing the parts, he found that a thumb and four fingers were protruding through the middle of the perinæum. This was the only case of central perforation of the perinæum in labor he had ever seen.

Dr. **Richard A. Cleemann** cited from his case book the following case of perforation of the perinæum which had come under his notice sevral years ago: He had been called to see a primipara, aged twenty, in labor early in the morning of July 11, 1887. Reaching the house at 3 a. m., he learned that her pains had begun at 9 the preceding night. They were gradually growing stronger and the os uteri was dilated to the diameter of half an inch. The head presented low down in the pelvis and the pains were moderate. Two hours later, dilatation had increased to an inch; the pains remained about the same. Unfortunately, he decided he could leave his patient without danger for a time, but on his return was told that a male child had been born at 7 a. m. (ten hours after the beginning of labor). The placenta had also come away. Upon examination, his attention was immediately fixed on a long, jagged tear extending from the anus forward nearly to the fourchette. The latter structure and the perinæum for a short distance posteriorly were entire. The picture presented was curious and striking and different from that ordinarily seen, even in long tears of the perinæum, which had a tendency to elude observation. The difference doubtless arose from an undue prominence given to the tissues around the tear by the passage of the head in this unwonted direction. The wound was at once closed with silk sutures. A memorandum was made on July 19th. The patient had been kept on a liquid diet and her bowels constipated by opium. On that day two sutures were removed from the anterior part of the perinæum, where the wound had healed. In the centre there had been a shallow slough, which had separated, leaving a fistulous opening into the vagina. The posterior part of the wound appeared to be united internally, though the outer edges were apart. The original extent and direction of the lacteration, as interpreted by the appearances, was from half an inch to the left of and a quarter of an inch below the posterior vaginal commissure, extending to the anus. On July 20th the remaining sutures were removed and the ulcer was of a good rose color and granulating well. On July 25th the patient was given a dose of Rochelle salt and two hours afterward an enema of water, bringing away a good quantity of fæces. On the 26th there was half an inch of perinæum in front of the anus not yet covered with epidermis. On September 1st the patient was examined after not having been seen for a month. The fistula had entirely closed and a cicatrix alone marked the line of rupture.

Dr. Cleemann's impression regarding the sequence of affairs was that, while the case was going along with moderate pains, as at the time he left the patient, they suddenly became much aggravated; the inexperienced patient, frightened, had responded to the reflex contractions of the abdominal muscles, bearing down with great force, and urged the head down on the perinæum; the head escaped from under the arch of the pubes before the tissues surrounding the vaginal outlet were relaxed; and, meeting this obstacle, the head, interrupted in its flexion, was shot through the posterior wall of the vagina and the perinæum.

With reference to the patient's perinæum in later labors, Dr. Cleemann further reported that a second labor occurred in August, 1888, at a time when he was out of the city. The patient reported to him that she suffered a small tear in the anterior part of the perinæum, for which two sutures were introduced. In her third labor, on January 3, 1890, a male child was born before Dr. Cleemann reached the patient. There was a tear in the anterior portion of the long perinæum, nearly reaching the position of the fistula which followed the injury in the first labor. It had almost enucleated the distended gland of Bartholin on the left side, which lay like a white pigeon's egg in the wound. This rupture was completely healed six days after labor, when he removed the three silver sutures. He did not attend the patient in her fourth confinement, but did in the fifth, on November 9, 1894. At the birth of the child, a female, which had presented by the vertex with the occiput to the right acetabulum, the perinæum escaped without a tear. After this the patient had been lost sight of.

Dr. **H. P. Fisher** reported having attended in 1900 a young woman in her second labor, which came on rapidly with severe pains. Upon reaching her he was immediately struck with the enormous bulging of the perinæum. The child's chin was visible at the vulvar orifice. There was a posterior position of the occiput. Ether was immediately administered, and as the doctor was cleansing his hands the child's head perforated the perinæum and tore it back to the sphincter. Finding that it would tear into the rectum, with a pair of scissors he incised the perinæum anteriorly and the child was immediately born. Dr. Fisher attributed the occurrence partly to the result of the first labor, which had taken place in another city and in which there had been severe laceration. The external perinæum had united firmly, but the floor of the vagina had been much lacerated and it had simply granulated up, leaving it weak and relaxed, forming a sort of cul de sac.

Dr. **Daniel Longaker** said he had never seen a central perforation of the perinæum, but had frequently seen, coming in advance of the head, a fold of mucous membrane, starting to tear pretty high up in the vagina and advancing with the progress of the head. He thought it probable that there was some peculiarity in the tissues of the patient predisposing to laceration of this particular kind. Were it not so, there would probably occur central perforation in those cases of persistent occipitoposterior position occasionally seen, in which there was enormous distention of the perinæum, and yet occasionally no laceration whatever. He had seen two cases in which the occiput remained posterior and was expelled in this position without any laceration of the perinæum.

Dr. **George M. Boyd** considered the ætiology of this tear a matter of great importance, but did not think he could add to the explanation given by the writer. His experience had agreed with that of Dr. Longaker in regard to the vaginal injury and the almost complete rupture of the muscles of the pelvic floor prior to that of the perinæum itself. He had witnessed a tear beginning as a central laceration, but finally completing itself before the birth of the child. He thought it difficult to explain the injury from the standpoint of extreme flexion of the head, because in occipitoposterior cases, while the injury was often excessive, in many cases the head was expelled without extensive injury. He was inclined to believe that there was some peculiar character of tissue in a particular patient different from that in the majority of cases. He admitted, however, the possibility of the explanation given by Dr. Nicholson of a spasm of the levator and accounting for the occurrence.

Dr. **E. P. Bernardy** stated that central lacerations were due to several causes, the first and main one being malposition of the head, especially occipitoposterior positions. If the forehead came down in an anterior position, it came in an unusually flexed condition, striking the centre of the floor instead of making extension and passing under the arch of the pubes, centring its entire force on one point. The second cause he regarded as the well known lack of muscular extensibility. The third cause was the forceps, especially as applied in posterior presentations.

In the latter part of the " seventies " he attended a young primipara in confinement. She was in perfect health and the pelvis was of good size. Labor began early in the evening and continued to about 5 a. m. The head came down in a preternaturally flexed condition and seemed to strike the perinæum in the centre. The perinæum bulged enormously, especially laterally. Suddenly, without premonition, a rupture started from about half an inch in front of the anus and extended forward to about one inch behind the vulva, leaving the vaginal outlet intact. Two fingers of the left hand were placed in the rectum, which was pulled forward, and the head forced up against the pubes, bringing on extension. The torn central portion was supported by the right hand. The head was felt through the opening. The patient was given chloroform during the pains and was shortly delivered without further injury. The wound was about four inches long and ragged. It was cleansed with water and the limbs were tied. The treatment was as then recommended in 1876-'78; the bowels were locked with opium for several days. Recovery was perfectly satisfactory. There was a well formed scar at the point of rupture, primary union having occurred.

(*To be concluded.*)

New Inventions.

THE ZERODONE; A RECTAL COOLING APPARATUS FOR THE TREATMENT OF INTERNAL HÆMORRHOIDS, ACUTE AND CHRONIC PROSTATITIS, AND IRRITABLE BLADDER.

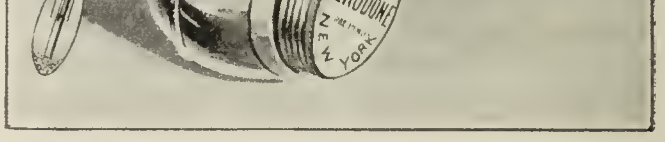
By A. ROSE, M. D.,

NEW YORK.

The peculiar feature of this elegant contrivance is a water chamber from which, by means of the working of a rubber bulb, a double current passes through a cylinder inserted into the rectum. There is no connection with a fountain syringe, as in the original Arzberger's or in Kemp's and others' apparatus, nor a siphon, as in Mattison's rectal cone.

The chamber—in case of cold application being desired—is filled with as much ice as it will hold and cold water up to the screw.

The bulb is then to be gently squeezed until completely collapsed, then allowed to resume its natural shape, and this may be repeated to make sure that the air in the channel through which the current is to pass is exhausted. If necessary, add now enough water to fill two thirds of the chamber, then screw the cap on tight.



The zerodone.

By pressing the bulb the water returns from the cylinder into the chamber; by releasing the bulb the water is forced back again into the cylinder.

All these cooling apparatuses, like Arzberger's, on which this zerodone is an improvement, have proved to be very valuable in the treatment, not only of hæmorrhoids, but also of acute and chronic prostatitis. H. Goldenberg (*Journal of Cutaneous and Genitourinary Diseases,* 1896) attributes to the early use of Arzberger's instrument the fact that not a single case went on to suppuration. For cases of considerable enlargement of the prostate gland, especially of an acute character, where the cooling sound could only be introduced with great difficulty and with much inconvenience to the patient, he has devised a modified form which can be attached to the zerodone. For twenty-five years I have made use of and prescribed Mattison's rectal cone or a simple cone to be connected with a fountain syringe in case of hæmorrhoids and prostatitis, but I find this new contrivance preferable on account of greater simplicity and because it is less apt or hardly at all apt to get out of order.

In acute cases of prostatitis iced water is indicated, in chronic cases water as hot as the patient can stand.

The zerodone, like the other contrivances called coolers, can be made to have currents of hot water wherever these are indicated.

They all may serve, proper attachments being provided, to apply dry heat or dry cold in the vagina.

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Book Notices.

Textbook of Human Physiology. Including Histology and Microscopical Anatomy, with Especial Reference to the Practice of Medicine. By Dr. L. Landois, Professor of Physiology and Director of the Physiological Institute in the University of Greifswald. Tenth Revised and Enlarged Edition, Edited by Albert P. Brubaker, M. D., Professor of Physiology and Hygiene in the Jefferson Medical College, etc. Translated by Augustus A. Eshner, M. D., Professor of Clinical Medicine in the Philadelphia Polyclinic, etc. With 394 Illustrations. Philadelphia: P. Blakiston's Son & Co., 1904. Pp. xxviii-1011.

Three new editions of this book have been published in Germany in the thirteen years that have passed since Professor Stirling edited the last English translation of it. And, as the author incorporated in each new edition such results of physiological investigation as would have, in his opinion, a permanent value, a new English translation was advisable.

The author believes that physiology is the foundation of internal medicine, and that it should be taught so that the physician can continue to build on it and find support in it. Therefore, after every section that describes the normal processes, there is appended a brief account of pathological variations, so as to direct the student's attention at the outset to the field of his future professional activity and to point out the extent to which the morbid represents a derangement of the normal process.

A comparison of this with the former American edition shows that, notwithstanding the many changes in the text, there is but slight increase in the bulk of the work. Some sections, such as that on the blood, have been materially changed. In many instances new methods of testing are described. Occasionally the elaboration of the subject does not seem quite adequate, as in the sections on the thyreoid gland, on the pituitary gland, on the suprarenal bodies, and on the pancreas. In the latter there is no mention of the islands of Langerhans and their influence on glycosuria.

The index should be improved; there is no reference therein to cholin, lecithin, and the pituitary body. As a rule the translation is satisfactory, but occasionally the text is obscure.

An Account of the Tapeworms of the Genus Hymenolepis, Parasitic in Man. Including Reports of Several New Cases of the Dwarf Tapeworm (*H. nana*) in the United States. By Brayton H. Ransom. Washington: Government Printing Office, 1904. Pp. 138.

This monograph presents a full account, from both zoological and medical standpoints, of the three representatives of the tapeworm genus *Hymenolepis,* which is a parasite in man. Each variety is clearly described, its development and life history are given, and there is a record of clinical cases and a description of symptoms. The pamphlet is well illustrated. It may be obtained by those interested through the usual official channels.

Annual Report of the Board of Regents of the Smithsonian Institution. Showing the Operations, Expenditures, and Condition of the Institution for the Year Ending June 30, 1903. Washington: Government Printing Office, 1904. Pp. 876.

This volume contains an account of the proceedings of the board of regents of the executive committee, an account of the operations and conditions of the institution for the year, and a selection of miscellaneous memoirs on various scientific subjects, including some interesting accounts of explorations, many of which are quite well illustrated.

A Treatise on Bright's Disease and Diabetes. With Especial Reference to Pathology and Therapeutics. By James Tyson, M. D., Professor of Medicine in the University of Pennsylvania; one of the Physicians to the Pennsylvania Hospital, etc. Second Edition, including a Section on the Ocular Changes in Bright's Disease and in Diabetes, by George E. de Schweinitz, M. D., Professor of Ophthalmology in the University of Pennsylvania; Ophthalmic Surgeon in the Philadelphia Hospital, etc. Illustrated. Philadelphia: P. Blakiston's Son & Co., 1904. Pp. 381. (Price, $4.00.)

Something more than twenty-three years have passed since the publication of the first edition of this work, and medical investigation has changed in many ways the views that were entertained about Bright's disease and diabetes. However, the author states that this book is a new edition and not a new work, and accordingly it contains a great deal of matter from the first edition that is not new. Generous references have been made to the more important investigations of recent years, and while the author states that these may not interest some readers, we believe that they will be found exceedingly valuable.

New sections have been added on acute interstitial nephritis and on the dietetic treatment of each of the diseases, and Professor de Schweinitz has written a section on the ocular manifestations of Bright's disease and of diabetes. The index is rather unsatisfactory. The illustrations are very good.

BOOK AND MAGAZINE NOTES.

A second and enlarged edition of *The Art of Cross Examination*, by Mr. Francis L. Wellman, has made its appearance, and the work is still characterized by its not citing too many cases. It may be read at a sitting and is likely to be reread at others, for the work is intensely amusing. Physicians who may read it will enjoy the discomfiture of the many "medical expert" quacks, as described, as much as courts, counsel, and juries did when the humbugs were exposed. We suppose that primarily the work is intended as a textbook for students; if so, it is unique in not containing a single dry paragraph. The chapter on Fallacies of Testimony is an unusually fine psychological study.

A handsome book is the Christmas number of *The Bookkeeper and Business Man's Magazine,* a publication which might prove useful to physicians who are notoriously ignorant or careless of business methods.

The Christmas number of *The Strand Magazine* will be found to interest physicians and their families alike. Physicians will not fail to enjoy the Stingaree Stories by E. W. Hornung, of Raffles fame, and few children can resist the admirable series of fairy tales produced in this international success.

BOOKS, PAMPHLETS, ETC., RECEIVED.

Medical Laboratory Methods and Tests. By Herbert French, M. A., M. D. (Oxon.), M. R. C. P. (Lond.), Medical Registrar, Guy's Hospital, Gillson Scholar, Society of Apothecaries of London, etc. Pp. viii-152. Chicago, 1904: W. T. Keener & Co. [$1.50 net.]

Bulletin No. 1, National Mosquito Extermination Society. Henry Clay Weeks, Editor. Pp. 39. Published by the Society, November, 1904.

Diätetisches Kochbuch. Von Dr. Otto Dornblüth, Nervenartz and Besitzer eines Sanatoriums in Frankfurt, a.M. Zweite, völlig umgearbeitete Auflage. Pp. vii-351. Würzburg, 1905: A. Stuber (C. Kabitzsch). [5.40 M.]

Physiological Economy in Nutrition. With Special Reference to the Minimal Proteid Requirement of the Healthy Man. An Experimental Study. By Russell H. Chittenden, Ph. D., LL. D., Sc. D., Director of the Sheffield Scientific School of Yale University and Professor of Physiological Chemistry; Member of the National Academy of Sciences, etc. Pp. xiv-478. New York, 1904: Frederick A. Stokes Company. [$3.00 net.]

A Laboratory Manual of Human Anatomy. By Lewellys F. Barker, M. B., Tor., Professor and Head of the Department of Anatomy in the University of Chicago and Rush Medical College. Assisted by Dean De Witt Lewis, A. B., M. D., and Daniel Graisberry Revell, A. B., M. B., Instructors in Anatomy in the University of Chicago. Pp. 583, Illustrated. Philadelphia and London, 1904: J. B. Lippincott Company.

X Rays: Their Employment in Cancer and Other Diseases. By Richard J. Cowen, L. R. C. S. I., L. R. C. P. I., etc., Member of the British Electrotherapeutic Association, Author of *Electricity in Gynæcology*, etc. Pp. xii-129. London, 1904: Henry J. Glaisher. [Price, 2s. 6d.]

Erste ärztliche Hülfe bei plötzlichen Erkrankungen und Unfällen. In Verbindung mit Wirkl. Geh. Rath Dr. E. v. Bergmann, o. ö. Prof. an der Universität Berlin. Geh. Med.-Rath Dr. C. Gerhardt, weil. o. ö. Prof. an der Universität Berlin. Geh. Med.-Rath Dr. O. Liebreich, o. ö. Prof. an der Universität Berlin. Dr. A. Martin, o. ö. Prof. an der Universität Greifswald. Bearbeitet und herausgegeben von Prof. Dr. George Meyer, in Berlin. Zweite Auflage. Pp. xvi-466. Mit 4 Abbildungen im Text. Berlin, 1904: August Hirschwald.

Miscellany

Parinaud's Disease.—At a meeting of the Section in Opthalmology of the College of Physicians of Philadelphia, held on October 18, 1904, Dr. W. Campbell Posey reported a case which had occurred in the right eye of an army surgeon who had been in charge of one of the hospitals in Puerto Rico at the time of the Spanish war. There were marked swelling of the lids and thickening of the conjunctiva, with large granulations hanging by distinct pedicles from the fornix of both lids. Between these granulations there were erosions and smaller yellowish granulations. The cornea was unaffected and there was but slight mucopurulent discharge. About a week after the ocular symptoms first manifested themselves, the preauricular and later the parotid and submaxillary and retromaxillary glands of the same side as the affected eye became swollen and indurated, requiring an operation to give exit to pus. The ocular condition persisted for months, resisting the usual forms of treatment with antiseptic lotions, cauterizations with silver and copper, and excision of the larger granulations. The general condition of the patient was one of depression, with slight fever. Later, symptoms of a severe nature developed, which caused the attending physicians to render a diagnosis of Malta fever.

The writer pointed out that, although Parinaud had described this form of conjunctivitis fifteen years previously, but twenty-three cases of the disease had been recorded. Although the disease was undoubtedly infective in origin, bacteriological studies have thus far been negative. Parinaud was of the opinion that the disease was contracted from decayed animal matter, and suggested that there might be a connection with foot and mouth disease.

The pathological anatomy of the affection was also still in doubt, Gifford believing that the infection started with the formation of small abscesses in or below the conjunctiva, and that the granulations developed from the edges of some of the ulcerations which were left after the breaking of the abscesses. Verhoeff and Derby, who had made the most recent contribution to the study of this form of conjunctivitis, believed, on the other hand, that the diseased process was a superficial one, confined almost exclusively to the subconjunctival tissues and consisting essentially in cell necrosis, which was followed by proliferation of the connective tissue.

Dr. A. G. Thomson exhibited another case, in a colored child, aged three years, from the Children's Hospital. Three weeks previous to its entering the hospital swelling developed of the posterior cervical glands, which extended rapidly to the submaxillary and preauricular glands and those overlying the parotid, the swelling later extending to the eyelids, completely closing them in a day. A few days later a thick, yellowish discharge from the conjunctiva appeared. Upon the child's admittance to the hospital, the lids of both eyes were swollen and tense, the palpebral conjunctiva was chemosed and protruding and the follicles were greatly enlarged, some broken down and covered with a thick purulent secretion. The cornea was healthy, and only a small portion of the ocular conjunctiva was decidedly chemotic. Bacterial examination showed no evidence of tubercle. There was no history of trachoma.

Applications of silver albuminate, solution, the use of compresses, and frequent cleansing with boric acid solution reduced the swelling of the glands and the discharge. The follicles were still somewhat enlarged and a few broken down, and on the whole the case resembled convalescing acute trachoma. There was nothing shown regarding the ætiology, except the fact that the father worked in a fertilizing factory.

Dr. Hansell referred to a severe type of conjunctival inflammation now under observation in a medical student which presented none of the ocular symptoms seen in Parinaud's disease, although it resisted all forms of treatment and was associated with swelling over the parotid gland. In response to an inquiry by the chairman, Dr. Thomson stated that the swelling of the glands in his case preceded the ocular disease, although usually the eyes were affected first.

Dr. Posey said that last winter he had had an opportunity of seeing another case of the disease, also in a physician, whose right eye became affected in a manner typical of this form of conjunctivitis. The swelling of the lids and the development of the polypoid granulation were, however, excessive, and the cornea became ulcerated, probably as a result of mechanical irritation. The course of the case was exceedingly chronic, as he understood that even now, a year after the initial symptoms had appeared, the granulations were still present. He thought it of interest to note, in connection with the pathogenesis of Parinaud's conjunctivitis, that in this instance the physician was a rectal specialist, that the first case occurred in a surgeon in hospital practice in Puerto Rico, where the sanitary arrangements were most imperfect, and that the father of the child just presented by Dr. Thomson was employed in handling fertilizer. Although bacteriological studies had failed to isolate the germ of this disease, he thought that the glandular involvement and the symptoms of general systemic depression all pointed to its being an infective process. He thought that the more frequent involvement of the right eye indicated that the toxic substance originating the inflammation was probably carried to the eye by the hand, and that, although bacteriological proof was wanting, the coincidence of a possible source of animal infection was present in too many cases not to admit of the probability of the disease being, as Parinaud first stated, originated in that way.

Marmorek's Antituberculous Serum in the Treatment of Pulmonary Tuberculosis.—Richer, in the *Montreal Medical Journal*, for September, 1904, refers to the claims which were made by Marmorek for his serum and the disappointment which had attended its use in other hands, notably at the clinic of Dieulafoy. He presents a series of seven cases with temperature charts and diagrams of the pulmonary lesions, and a résumé of their clinical history. The course of these cases during and after their repeated inoculations with this serum was almost uniformly favorable. The observations do not extend over a sufficiently long period to enable the writer to say whether the effects will be permanent. In one case which was reported in May, 1904, the physical signs of tuberculosis entirely disappeared after 30 inoculations, and the sputum contained no bacilli. Two months later, this same patient who was supposed to be cured again had bacilli in her sputum and a slight indication of the return of the disease at the original spot. This observation has the value of a control experiment, and the writer proposes to watch the symptoms, use the serum again, and note and publish the results. An inference which he thinks may be drawn is that we have fair evidence that Marmorek's serum is antitoxic and capable of conferring passive immunity, and that consequently it is probable that it can be used to protect human beings while under treatment with bacillary extracts of the tuberculin group. The human organism under treatment in such cases would be attempting to produce its own antitoxine, as well as its bactericidal humors. The writer is now attempting that form of treatment, and hopes soon to be able to publish his observations.

Official News.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the week ending December 2, 1904:

Smallpox—United States.

Place.	Date.	Cases.	Deaths.
Dist. of Columbia—Washington	Nov. 13-26	2	
Illinois—Chicago	Nov. 20-26	14	
Louisiana—New Orleans	Nov. 20-26	4 imported	
Michigan—Bay City	Oct. 1-31		1
Michigan—Calhoun County	Oct. 1-31		1
Michigan—Detroit	Nov. 20-26	1	
Michigan—At 62 places	Nov. 20-26	Present.	
Missouri—St. Louis	Nov. 20-26	16	3
New Jersey—Camden	Nov. 20-26	1	
New York—New York	Nov. 20-26	3	
Ohio—Cincinnati	Nov. 4-25	3	1
Ohio—Toledo	Nov. 20-26	3	
Pennsylvania—Johnstown	Nov. 20-26	3	
Pennsylvania—Philadelphia	Nov. 19-25	2	
Pennsylvania—Steelton	Nov. 20-26	2	
Pennsylvania—Williamsport	Nov. 20-26	1	
South Dakota—Sioux Falls	Nov. 13-19	2	
Utah—7 localities not named	Oct. 1-31	103	
Smallpox—Foreign.			
Austria-Hungary—Prague	Oct. 30-Nov. 12	31	
Brazil—Rio de Janeiro	Oct. 24-Nov. 6	427	175
Cuba—Sagua la Grande	Nov. 13-19	1	
Ecuador—Guayaquil	Nov. 3-9	Present.	
France—Lyons	Oct. 30-Nov. 5	5	
France—Paris	Nov. 6-12	12	1
Great Britain—Bristol	Nov. 13-19	1	
Great Britain—Dundee	Oct. 30-Nov. 5	1	
Great Britain—Leeds	Nov. 7-19	3	1
Great Britain—Manchester	Nov. 6-12	7	
Gt. Britain—Newcastle-on-Tyne	Nov. 6-12	6	
India—Bombay	Oct. 26-Nov. 1	1	
Italy—Catania	Nov. 11-17		4
Italy—Palermo	Oct. 23-29	6	1
Russia—Moscow	Oct. 23-Nov. 5	8	3
Russia—St. Petersburg	Oct. 23-Nov. 5	11	4
Russia—Warsaw	Oct. 2-15		24
Spain—Barcelona	Nov. 1-10		13
Turkey—Beirut	Oct. 29-Nov. 5	Present.	
Turkey—Constantinople	Nov. 7-13		15
Yellow Fever.			
Brazil—Rio de Janeiro	Oct. 31-Nov. 6	2	2
Mexico—Coatzacoalcos	Nov. 13-19	1	4
Mexico—Merida	Nov. 13-19	1	1
Mexico—Texistepec	Nov. 13-19	30	3
Mexico—Vera Cruz	Nov. 13-19	3	1
Panama—Colon	Nov. 20	1	
Venezuela—Laguaira	Nov. 12	Present.	

Cholera.

India—Bombay	Oct. 26-Nov. 1		1
India—Calcutta	Oct. 23-29		8
Russian Empire—Baku	Oct. 19-25	26	9
Russian Empire—Kilsit-Arwat	Oct. 17-24	1	
Russian Empire—Merv	Oct. 17-24	1	
Russian Empire—Serachs	Oct. 17-24	1	

Plague.

Brazil—Rio de Janeiro	Oct. 23-Nov. 6	62	28
British South Africa—Durban	Oct. 1	1	
Egypt—Alexandria	Oct. 22-28		1
Formosa—Taihoku	Sept. 3-10	1	1
India—Bombay	Oct. 26-Nov. 1		60
India—Calcutta	Oct. 23-29		4
India—Karachi	Oct. 17-23	9	8

Public Health and Marine Hospital Service:

List of Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the Public Health and Marine Hospital Service for the eight days ending November 30, 1904:

CARTER, H. R., Surgeon. Relieved from duty at Baltimore, Md. November 28, 1904.

COLLINS, G. L., Assistant Surgeon. Granted leave of absence for five days from November 16, 1904, under paragraph 191 of the regulations.

GRUBBS, S. B., Passed Assistant Surgeon. Granted leave of absence for twenty-one days from December 18th.

HANRATH, F. R., Pharmacist. Granted leave of absence for twenty-seven days from October 25, 1904.

HUNTER, W. R., Acting Assistant Surgeon. Granted leave of absence for fourteen days from November 25th.

MACDONALD, JEANNETTE, Medical Inspector, San Francisco Quarantine. Granted leave of absence for eighteen days from December 10th.

MCINTOSH, W. P., Surgeon. Bureau letter of October 24, 1904, granting Surgeon McIntosh leave of absence for twenty-five days from November 8, 1904, amended to read eighteen days.

SAFFORD, M. V., Acting Assistant Surgeon. Granted leave of absence for five days from November 25, 1904, under paragraph 210 of the regulations.

TAPPAN, J. W., Acting Assistant Surgeon. Granted leave of absence for twenty-three days from October 24, 1904, on account of sickness.

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending December 3, 1904:

ASHFORD, B. K., Captain and Assistant Surgeon. Granted thirty days' leave of absence, to take effect about December 20, 1904.

MEARNS, E. A., Major and Surgeon. Granted thirty days' sick leave, with permission to apply for an extension of thirty days.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending December 3, 1904:

ALFRED, A. R., Surgeon. Detached from the Navy Yard, Puget Sound, Wash., and ordered to the Naval Station, Cavite, P. I., reporting on the *Solace* for duty, *en route*.

BENTON, F. L., Passed Assistant Surgeon. Detached from the Naval Station, Cavite, P. I., and ordered home to await orders.

BUCHER, W. H., Surgeon. Detached from the Naval Station, Olongapo, P. I., and ordered to the *Cincinnati*.

CARPENTER, D. N., Surgeon. Detached from the Naval Hospital, New York, and ordered to duty in charge of the Naval Hospital, and to additional duty at the Navy Yard, Puget Sound, Wash.

DE VALIN, H., Acting Assistant Surgeon. Ordered to the Naval Proving Grounds, Indian Head, Md.

DUNN, H. A., Assistant Surgeon. Detached from the Naval Hospital, Newport, R. I., and ordered to the Naval Hospital, New York.

FAUNTLEROY, A. M., Passed Assistant Surgeon. Detached from the *Lancaster* and ordered to the Navy Yard, Norfolk, Va., and thence to accompany a draft of men to the Navy Yard, Mare Island, Cal., and thence to the *Philadelphia*, with additional duty at the Navy Yard, Puget Sound, Wash.

IDEN, J. H., Passed Assistant Surgeon. Detached from the Naval Hospital, Philadelphia, Pa., and ordered to the Naval Hospital, Newport, R. I.

MANCHESTER, J. O., Assistant Surgeon. Detached from the *Columbia* and ordered to the *Marblehead*.

STEPP, JACOB, Assistant Surgeon. Detached from the Navy Yard, Boston, Mass., and ordered home to await orders.

VON WEDEKIND, L. L., Surgeon. Detached from the *Cincinnati* and ordered home.

Births, Marriages, and Deaths.

Married.

BRASWELL—PUGHSLEY.—In Swainsboro, Georgia, on Thursday, November 24th, Dr. B. D. Braswell and Miss Carrie Eleanor Pughsley.

CARMAN—BUTLER.—In St. Louis, Missouri, on Monday, November 14th, Dr. Russell D. Carman and Miss Sadie Lyon Butler.

CHANCELLOR—MATHIESSEN.—In La Salle, Illinois, on Wednesday, November 23rd, Dr. Philip Stanley Chancellor and Miss Emma Elise Mathiessen.

COLE—PENDLETON.—In Annapolis, Maryland, on Saturday, November 19th, Dr. Howson W. Cole, Jr., United States Navy, and Miss Helen Fay Pendleton.

EDSON—WELLS.—In New York, on Wednesday, November 30th, Dr. David Orr Edson and Miss Grace Wells.

HARTMAN—FORNEY.—In Hanover, Pennsylvania, on Wednesday, November 30th, Dr. Harry M. Hartman and Miss Elizabeth Forney.

HIRSHBERG — DALSEMER.—In Savannah, Georgia, on Thursday, November 17th, Dr. Leonard K. Hirshberg and Miss Edna Dalsemer.

MILLER—KIRK.—In Washington, D. C., on Saturday, November 12th, Dr. Harold A. Miller and Miss Katherine Wilson Kirk.

RICHARDSON—GODDARD.—In Hagerstown, Maryland, on Wednesday, November 16th, Dr. W. S. Richardson and Miss Anna M. Goddard.

Died.

BENNETT.—In Middletown, N. Y., on Saturday, November 19th, Dr. A. A. Bennett, in the seventieth year of his age.

CUSHMAN.—In Ridgefield, Connecticut, on Friday, December 2nd, Dr. William F. Cushman, in the sixty-seventh year of his age.

DURAND.—In San Antonio, Texas, on Wednesday, November 23rd, Dr. C. S. Durand, of Chattanooga, Tennessee.

GRAY.—In Richmond, Virginia, on Thursday, November 24th, Dr. William Brooks Gray, in the seventy-second year of his age.

NEWBERN.—In New Haven, Connecticut, on Thursday, November 24th, Dr. W. W. Newbern, in the sixty-sixth year of his age.

PITKIN.—In New York, on Thursday, December 1st, Dr. Leonard F. Pitkin, in the forty-seventh year of his age.

POST.—In Denver, Colorado, on Saturday, November 26th, Dr. Alfred C. Post, in the thirty-second year of his age.

RALLS.—In Gadsden, Alabama, on Wednesday, November 23rd, Dr. John P. Ralls, in the eighty-fourth year of his age.

SHACKELFORD.—In Hopkinsville, Kentucky, on Sunday, November 27th, Dr. Charles Shackelford, in the eighty-sixth year of his age.

SPRAGUE.—In Albion, N. Y., on Monday, November 28th Dr. Phœbe A. Sprague, in the fifty-seventh year of her age.

WOLFF.—In New York, on Monday, November 28th, Dr. Richard Wolff, in the twenty-sixth year of his age.

New York Medical Journal
AND
Philadelphia Medical Journal.

A Weekly Review of Medicine

Vol. LXXX, No. 25. SATURDAY, DECEMBER 17, 1904 Whole No. 1359.

Original Communications.

SCARLET FEVER IN NEW YORK, AND SOME OF ITS THERAPEUTICAL POSSIBILITIES.

By A. SEIBERT, M. D.,

PROFESSOR OF PÆDIATRICS, NEW YORK POLYCLINIC; ATTENDING PHYSICIAN, ST. FRANCIS HOSPITAL.

I.

During the thirty years beginning January 1, 1873, and ending January 1, 1903, the mortality of scarlatina in the old city of New York (the boroughs of Manhattan and the Bronx) amounted to 24,516 deaths, equal to a little more than 817 annually. Comparing the last three decades we find that during the first, ending January, 1883, this mortality amounted to 10.55 in every 10,000 inhabitants; that during the second, ending January, 1893, but 5.31 in every 10,000 died of scarlatina, and that during the last ten years, ending January, 1903, this mortality came down to but 2.5 in 10,000.

Comparisons as to the frequency of this disease in New York between now and twenty or thirty years ago could not be made with accuracy, because of the deficient methods of reporting cases in former years. Nevertheless, the fact remains that the chances for a resident of New York to die of scarlatina have been steadily reduced in twenty years, from one out of every 1,000 to one out of every 4.000 inhabitants.

These figures (which are taken from the advance sheet of a report to be published by the health department and for which I am indebted to the courtesy of the assistant registrar, Dr. Gilfoy) are all the more striking, if we consider the increase in numbers and density of our population. To find an explanation of this phenomenon, I made the following investigation:

All of the cases of scarlet fever reported to our health department during the last ten years in Manhattan and the Bronx (in all 62,952) were copied from the published weekly reports and arranged according to the wards of the city in which they occurred, and according to the weeks in which they were reported.

On Chart I, we find the annual morbidity of scarlatina. The number of cases ranged from 3,689 in 1895 to 10,831 in 1901. During 1900 but two thirds as many cases were reported as during the following year, and during 1895 but one half as many cases appeared as in 1897. In other words, the annual morbidity of scarlet fever does not increase with the increase in population. It is more frequent in some years than in others in the same city, and its frequency is equally distributed each year over the different sections of the city. The common factor which controls this annual rise and fall is not known.

The density of our population compared with the average annual frequency of scarlatina in the 24 wards of the city is shown on Chart II. The black columns denote the number of people living on the acre in each ward, and the shaded columns the number of cases of scarlet fever in the proportion of 1 to every 1,000 inhabitants. On the accompanying map of Manhattan and the Bronx the 24 wards of the city are outlined, with the number of each in the centre.

We find on Chart II that the frequency of scarlatina does not invariably coincide with the density of the population; we notice, on the contrary, that this is but the case in 8 of the 24 wards, while in the remaining 16 the opposite relation appears. This fact may in part at least be explained in the first and twelfth wards. In the first ward but 61.8 persons live on each acre of ground, and in the twelfth ward (covering all ground on Manhattan Island north of Eighty-sixth Street) but 86.6 people live on the acre, and in spite of this large space the annual frequency of scarlatina is 3.9 and 3.1 in 1,000, respectively. The explanation here is not difficult. The 9,516 inhabitants of the first ward (south of Maiden Lane and Cortlandt Street) are crowded together in tenements in the neighborhood of Greenwich Street on the west side and of Whitehall Street on the east side, and most of the ground of this ward is covered by Battery Park and large office

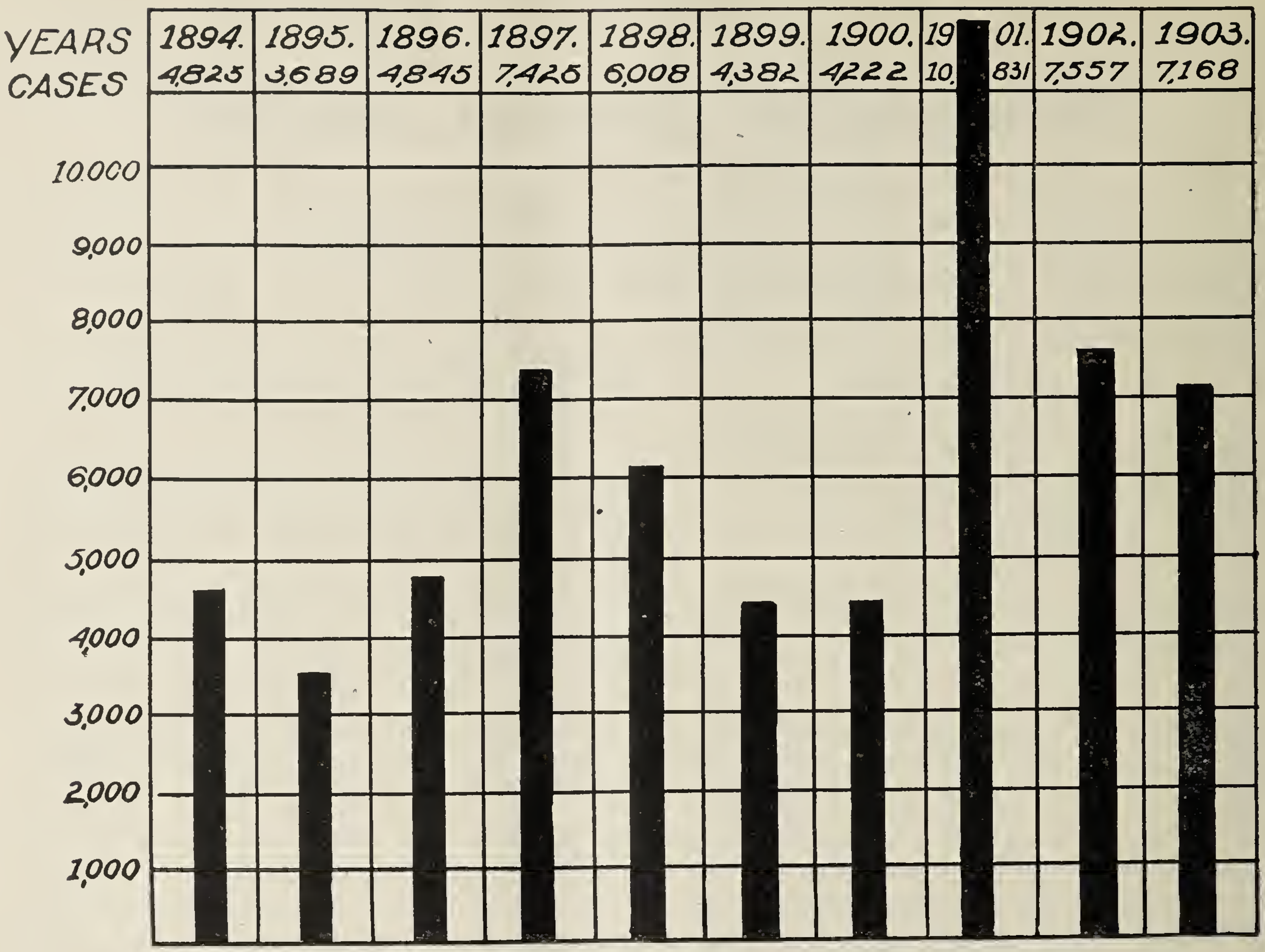


Chart I.—Annual morbidity of scarlatina in New York.

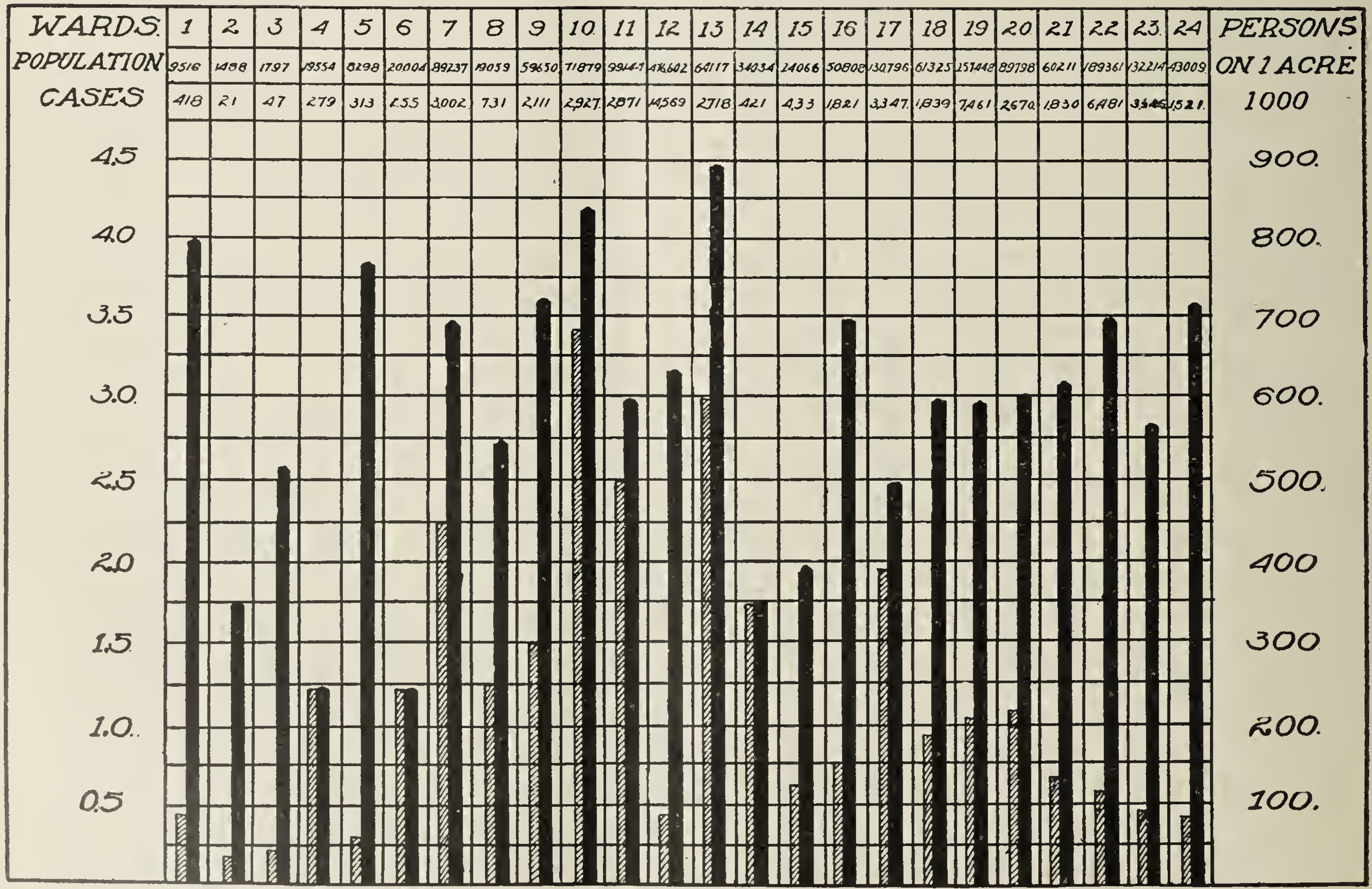
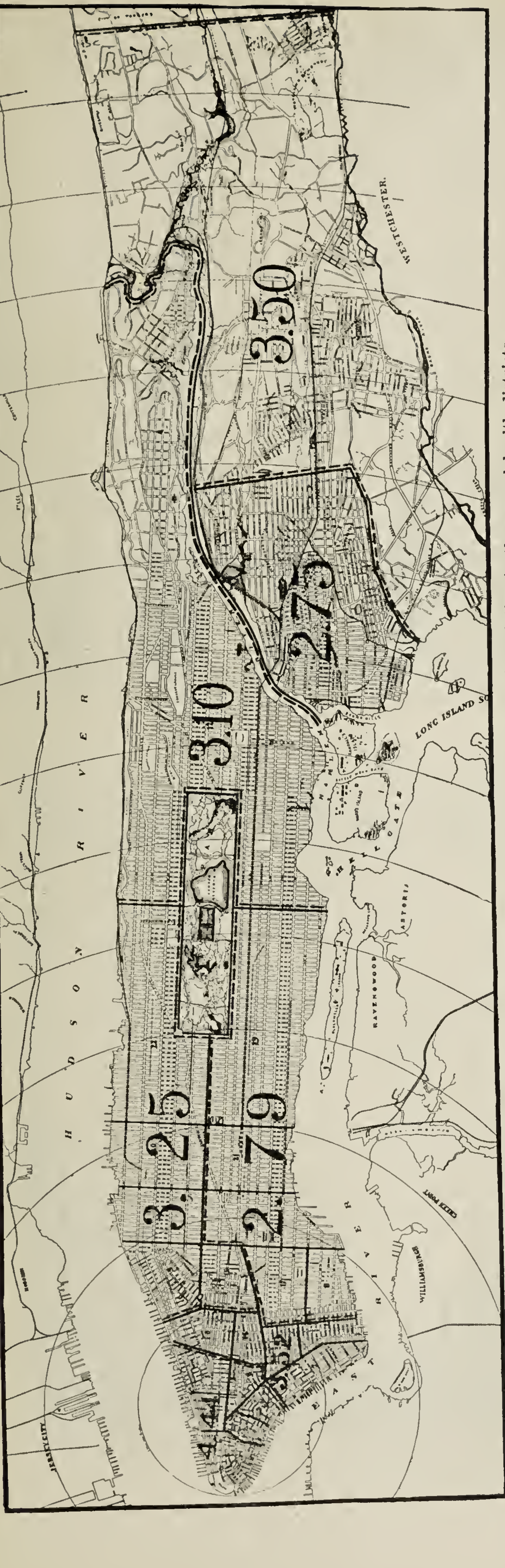


Chart II.—Frequency of scarlatina (shaded lines) compared with the density of population (black lines).



Map of New York showing morbidity per thousand of population of scarlatina in the several health districts.

buildings, used only by adults during a limited number of hours of the day, and living in other sections of the city. Again, in the twelfth ward almost one third of the ground is taken up by parks and vacant lots, while the bulk of the population live close enough south of West One Hundred and Fifty-fifth and East One Hundred and Thirty-fourth Streets. On the other hand, if we compare, for example, the nineteenth ward (north of East Fortieth and south of East Eighty-sixth Streets) with the twenty-second ward (north of West Fortieth and south of West Eighty-sixth Streets), and again the twenty-third with the twenty-fourth wards of the Bronx, then we also find that larger space of ground and lesser frequency of scarlatina do not run parallel to each other, meaning that living in a thinly populated district of New York does *not* diminish the chances of acquiring scarlet fever.

To test further the accuracy of this conclusion, I have divided the city into eight districts, according to their proximity and density of population, marked off on the map by heavy lines.

On Chart III the height of the population of each district and the actual number of scarlet fever cases are ranged side by side, the black columns representing the population and the shaded the cases of scarlatina. At once we see that invariably the light and the black columns remain in a certain proportion to each other. In the lowest district (comprising the first 6 wards) this proportion is as 1.5 to 2.5. In the second, and most populated, district (comprising the seventh, eighth, fourteenth, tenth, and thirteenth wards and bounded south by Canal and Catherine and north by West Houston and Rivington Streets) this proportion is as 8 to 12, a trifle better than in the lower section. Comparing the next district west of Broadway (comprising the ninth, fifteenth, sixteenth, and twentieth wards) with the one just east of this one (comprising the eleventh, seventeenth, eighteenth, and twenty-first wards) we notice a proportion of 6 to 9 on the West Side and one of 8 to 14 on the East Side, a decidedly better condition in the latter. Comparing the twenty-second ward on the West Side with the nineteenth on the East Side (both about equal in size and density of population) we again notice a proportion of 5 to 8 for the former and of 5½ to 11 in the latter.

Comparing in conclusion the entire West Side north of Houston Street and south of West Eighty-sixth Street with the opposite East Side north of Rivington and south of East Eighty-sixth Street, we have two districts adjoining each other, covering nearly the same space of ground

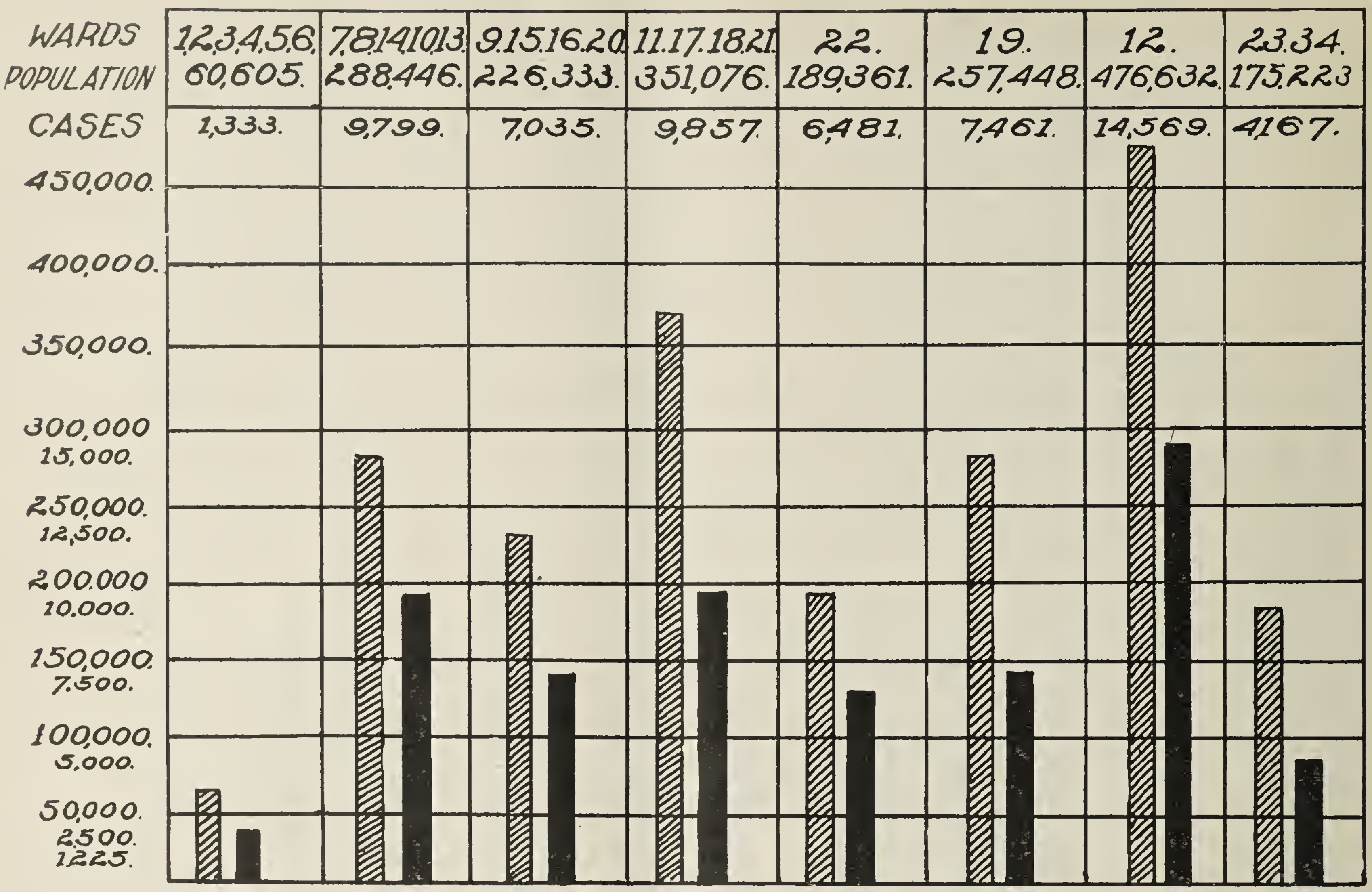


Chart III.—Frequency of scarlatina (black lines) compared with the actual number of the population (shaded lines).

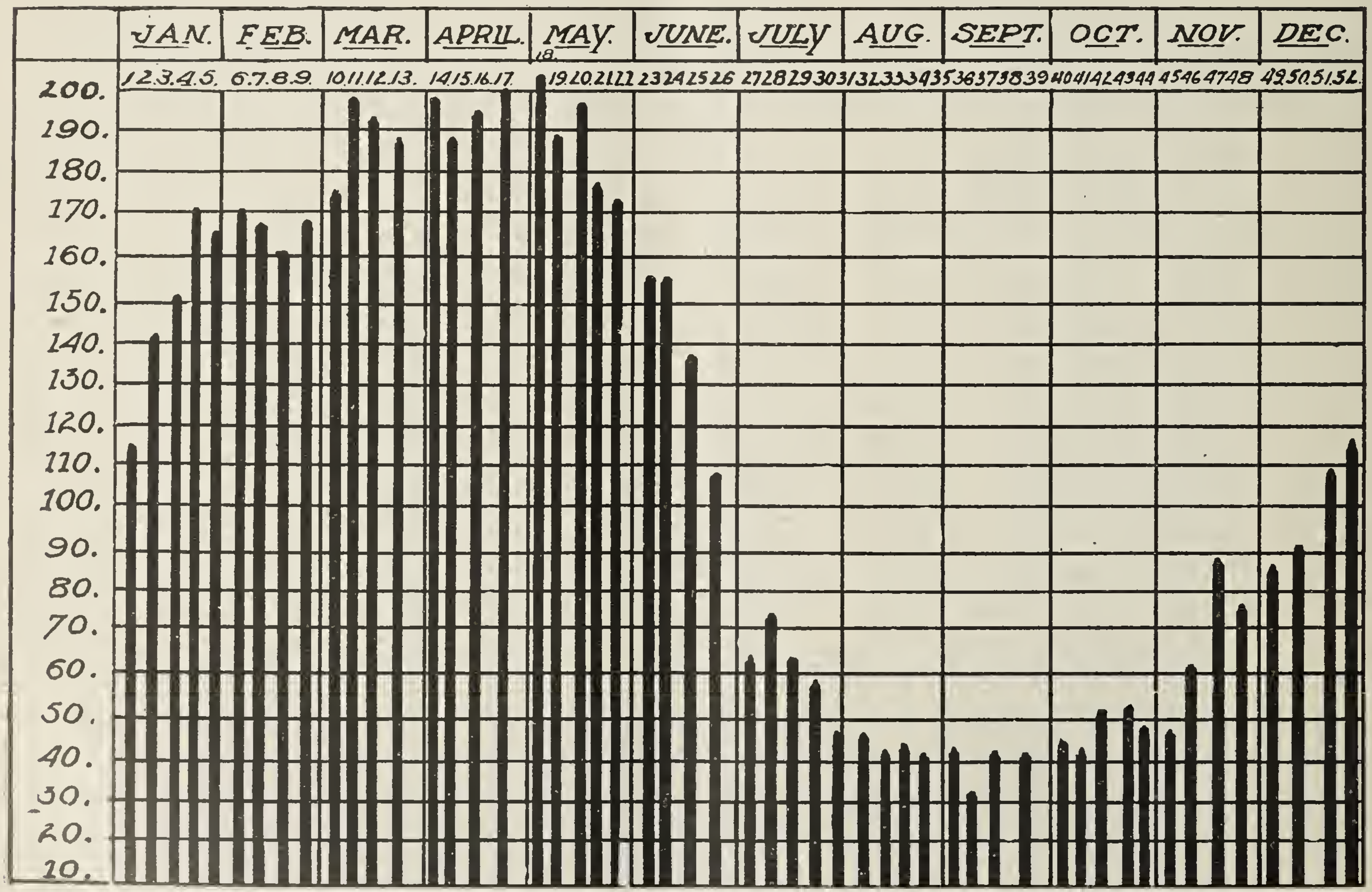


Chart IV.—Frequency of scarlatina during the weeks of the year.

(namely, 2,842 and 2,869 acres, respectively) and yet we notice that while

13,516 cases of scarlatina appeared during the 10 years in the West Side district among 415,694 inhabitants, equal to 3.25 in 1,000,

but 17,318 cases appeared in the East Side district in the same time among 608,524 inhabitants, equal to 2.79 in 1,000.

In the twelfth ward, with 476,632 inhabitants, comprising an area of 5,504 acres of land (out of 12,576 acres of the entire island of Manhattan) we find 14,569 cases of scarlet fever in these ten years, an annual morbidity rate of 3.10 in 1,000 inhabitants, but slightly better than the middle West Side (below Eighty-sixth Street) with 3.25 in 1,000, but yet decidedly worse than the middle East Side with but 2.79 cases in 1,000 inhabitants.

Comparing, lastly, the two wards of the Bronx, we find that the twenty-third, with a population exactly three times as large and an area of ground one fifth the size of the twenty-fourth ward, has but a scarlet fever rate of 2.75 in 1,000, against 3.50 in 1,000 inhabitants of its neighbor.

These comparisons prove that it is not the density of the population, but the actual number of people living in a district which determines the frequency of scarlet fever.

If, then, scarlet fever is a contagious disease, appearing in crowded and in sparsely populated districts alike often, in direct proportion to the number of inhabitants, what factor is there common to all that can carry this contagion from house to house? Where is this common carrier of infection for scarlatina, like the water supplies of cities for typhoid fever?

On Chart IV, I have arranged the average number of scarlet fever cases in a year (6,295) according to the weeks in which they were reported, so that each column represents the average scarlet fever frequency of each week of the year.

Here we first notice that scarlatina is found in New York during every week of the year. The highest number of cases (208) were reported during the first week in May, and the lowest (34) during the second week of September.

During the first half of the year three times as many cases occur as during the second half. Beginning with January 1st, we see scarlet fever increasing steadily from week to week to the middle of May, when its frequency diminishes gradually until the end of June, then to drop down suddenly from 110 to 60 cases in a week. This sudden drop at the end of June is the most important point on this chart. It repeats itself regularly every year. In 1901 this drop showed the figures of 228 to 82, in 1902 from 149 to 19, and in 1903 from 132 to 94.

What could possibly be the cause of this sudden decrease in frequency recurring annually with unerring regularity? A highly contagious, epidemic disease which is more prevalent during May and June of each year in New York than during January and February cannot possibly be influenced as to its frequency by variations in the atmospheric condition so as to show this phenomenon about the first of July of each year, resulting in the fact that during May and June on the average 150 new cases of scarlatina are reported weekly, and during July and August but 50 in each week.

There can be but one explanation: All public schools close during the last week of June and therewith abruptly ceases the almost daily congregation of infectious material on small areas (school houses and play grounds) for so many hours of the day. According to the official report of the health department 450,000 children attended the public schools on the daily average during the first three months of 1903, and about 75,000 the private and parochial schools. Many private schools close during May, and many scholars leave the city at that time annually, resulting in the first falling off in scarlet fever since New Year, but the bulk of this one half million of young inhabitants suddenly cease coming together daily at the end of June, and, as a result, the frequency of the disease comes down to one half in one week, a phenomenon seen at no other time during the entire year.

From July 1st on, the frequency of scarlatina diminishes steadily from week to week during the entire vacation period until the second week of September, one week after the opening of the public schools, when again the number of new cases steadily increases to the end of the school year, July 1st. This steady decline of scarlatinal frequency during vacation, and this steady increase during the school term, are of high importance. If all schools closed on August 1st instead of July 1st and if no scholars left the city till then, the accumulation of new cases would then continue up to that date, instead of to the middle of May. And if all schools opened on October 1st, the increase in the scarlet fever rate would not begin until then.

If the schools are the chief common localities for most scarlatinal infections, how is it that the proportion of contagions is not larger in the densely populated districts than in the less populous sections of the city?

Each school girl has but a certain number of personal acquaintances at school, with whom she comes in direct close daily contact, or, correctly speaking, five times each week, whether she resides in the Bronx, in a Rivington Street tenement, or in a private house west of the Park. With these acquaintances (limited in number) the scholar exchanges kisses, eatables, and pencils to write with and to bite on. The majority of the members of her class *do not touch her*, any more than the rest of the scholars in the building. The longer school is open, the more the term advances, the more acquaintances the pupils will make among themselves (like among the passengers of a steamer crossing the ocean), and from week to week the average scholar comes in direct contact with more and more new sources of infection, carried from infected homes to the school, resulting in the steady increase of scarlet fever cases during the school term. If the scarlatinal contagion could be spread by exhalation and inhalation, into, and from, the air of the schoolroom, then the majority of a class would be infected within a few days by one scholar and local school endemics would constantly appear in different schools and the rise in September would be abrupt and not gradual, as well as through the entire school year.

The direct contact infection proved for scarlatina, we can readily understand why the scholar living in the tenth ward is in no greater danger of acquiring this disease on his way through the crowded streets then the one living in a fine flat in Harlem. During lessons both children are endangered only by possible contact with their immediate neighbor next to whom they sit and with whom they exchange courtesies. The number of such neighbors is alike to each child in every school, public and private, uptown and downtown. During recess and on the way to and from home, the possibilities of direct contact are also limited to a certain number, limited by time and space, which govern all alike. In fact, a child attending school in a sparsely settled district is apt to make more friends than one in a crowded section, because the school is at a greater distance from home (taking a longer time to walk) and because the children are less suspicious of one another. Large crowds do not induce conviviality, any more in children than in adults. Children make no exceptions to this law of "most being alone in a crowd." When epidemics of scarlet fever strike small country villages and towns in Europe (where isolated farms are unknown), the percentage of scholars stricken is always much higher than in large cities during like conditions.

At the close of this investigation I submit the following conclusions:

1. Scarlet fever, always present in New York, is evenly distributed each year among the different districts, in direct proportion to the number of inhabitants.
2. It is most common among school children.
3. The chief common centres for contagion are the schools.
4. Direct contact is necessary for infection.

II.

As a reliable specific remedy against scarlatina is not yet on hand, the question arises whether we should limit our therapeutical efforts to symptomatic and dietetic treatment, or should attempt to destroy some of the pathogenic organisms which have entered the body wherever they come within reach.

In scarlatina the inflammation of the skin begins about the neck and invariably progresses downward to the toes. Why this order of march? Why, if scarlatina is primarily a general blood infection, does not the rash appear all over the body at once, or begin occasionally somewhere else than near the throat, say at the toes, and progress upward instead of always downward? Does this not lead us to the conclusion that the primary invasion takes place in the pharynx, from there reaches the nearest skin surface, and thence spreads locally by continuation of surface in the lymphatics of the skin?

In the scarlatinal throat we first find unusual redness, then swelling, and then exudate on the invaded mucosa, and then the adjoining lymph-nodes swell more and more from day to day, as the infectious material reaches them from the pharynx. Again we have here primarily a local infection.

When is scarlet fever a systemic blood infection? Let others answer this question: Jochmann (*Deutsch. Archiv. f. klin. Medizin*, lxxviii) has recently examined the blood of 161 scarlet fever patients in the Eppendorf Hospital in Hamburg and found organisms (streptococci) during the disease in only 15 per cent. of the cases, all of which proved fatal. During the height of the rash in the first days of illness streptococci were never found in the blood, not even in malignant cases, while in 50 per cent. of the dying patients streptococci were found shortly before death, their number being relatively small in comparison to those found in the blood of the dead.

These important findings of Jochmann prove that the scarlatinal organism lodges in the throat, in some lymph nodes, and in the skin of the patient for days, even in severe cases, before it enters the blood and then to kill the patient. In fact, the life danger in this disease appears to rest in the possibility of streptococci entering the blood in larger numbers, from the invaded throat and skin.

If this is true, can we destroy streptococci in the scarlatinal throat and skin before they can enter the blood? To my mind we can.

During the last ten years I have used inunctions with 5 per cent. and 10 per cent. ichthyol lanolin ointment twice or four times daily, into the entire skin, in every case of scarlet fever. Swelling and itching are hereby diminished, and, later on, the almost entire absence of desquamation, even in severe cases, proved that the inflammation of the skin had been actually reduced. The ointment must be rubbed well into the skin.

Ill effects from such inunctions have never been noticed by any one here in New York. A Dr. Kraus, of Prague, Bohemia, who reported adversely on three cases of scarlet fever in which he used ichthyol ointment (*Prag. med. Woch.*, December 27, 1900), did not use lanolin, but vaseline as a vehicle, and therefore his observations have no value.

Furthermore, these inunctions aid in preventing contagion, for in numerous cases treated in families with 3 to 7 children living in small flats, no further cases developed after the first one had been treated in this manner. That ichthyol is a germicide for streptococci has been shown in a series of experiments in the Hygienic Institute at Greifswald by Abel in 1893. So far only streptococci have been found in the scales and the blood of scarlatinal patients.

The most dreaded complication of scarlet fever is streptococcic pharyngitis. After trying bland solutions for irrigating the nasopharynx, injections of chlorine water, and also ichthyol solutions without decided effect, I began to disinfect the nasopharynx and pharynx about four years ago with a 50 per cent. resorcin alcohol solution as soon as exudate began to show itself in the throat.

The patient is placed upright on the lap of the nurse as when intubation is performed, the wrists are held down, and the head is held firmly by a second attendant standing behind. A plug of absorbent cotton, wound around a curved applicator and dipped into this solution, is quickly introduced over the handle of a tablespoon into the nasopharynx, on one side of the uvula, left there a few seconds, and then withdrawn. A second application is made on the other side. No swabbing or wiping away of exudate is resorted to, for on the introduction of the cotton the soft palate instantly contracts and so presses the fluid into every nook and corner of the throat. *The solution penetrates through the exudate and deep into the affected mucosa, and there destroys the life of every streptococcus (or any other germ) it comes in contact with.*

That all of the visible surface of the throat has been flooded by this solution, can be seen by a milky appearance of the surfaces. Where this is wanting, a third and fourth application should be made instantly.

These applications should be made once daily in early and mild cases of scarlatinal sore throat, twice daily in more advanced cases, and every two to four hours in far advanced cases, where they can then yet save the patient in some instances.

This energetic treatment is absolutely harmless to the patient, for it can be employed in infants as well as in adults. As a rule, a reduction of the swelling of the adjoining lymph nodes is noticeable within a few hours after the first application. The treatment must be continued until the throat is free from exudate and the lymphnodular swelling has disappeared.

Wherever the presence of true diphtheria is even suspected, I of course use Behring's serum at the very beginning of each case.

In the most dangerous cases of scarlatinal sore throat the Löffler bacilli are not present, and for want of an effective streptococcus serum this local destruction of pathogenic organisms at the very source of supply has given me, and others who have tried it, considerable satisfaction.

114 East Fifty-seventh Street.

Pennsylvania Society to Protect Children from Cruelty.—The Pennsylvania Society to Protect Children from Cruelty opened its new house at 415 South Fifteenth Street on Monday afternoon, November 21st. The Honorable John Weaver, Mayor of Philadelphia, and the Honorable Hampton L. Carson, Attorney General of Pennsylvania, made addresses. The following constitute the board of managers of the society: Charles C. Harrison, president; Miss Harriet Abbey, Mrs. Pierce Archer, Mr. Charles Biddle, Mr. Edward Coles, Mrs. Eva Coons, Mr. Henry M. Dechert, Dr. Charles W. Dulles, Mrs. George W. Ellis, Mrs. Edward R. Fell, Mr. Thomas L. Gillespie, Mr. Henry M. Gratz, Mr. John Gribbel, Mr. H. O. Hildebrand, Mrs. G. M. S. P. Jones, Mr. J. Percy Keating, Mrs. William Linton Landreth, Mrs. Robert W. Lesley, Mrs. J. Willis Martin, Miss Caroline Mason, Mr. Joseph P. Mumford, Mr. G. Heide Norris, Dr. Charles A. Oliver, Mrs. Edward H. Ogden, Mr. Charles G. W. Packard, Mr. John W. Pepper, Honorable William W. Porter, Mrs. James Potter, Miss Charlotte Siter, Mr. Edward B. Smith, Mrs. Louis Starr, Dr. Charles P. Turner, Mrs. H. W. Wilson. Tea was served from three until six o'clock.

CLINICAL OBSERVATIONS IN SCARLET FEVER, WITH SPECIAL REFERENCE TO THE HEART AND OTHER COMPLICATIONS, AND THERAPEUTICAL SUGGESTIONS.*

By LOUIS FISCHER, M. D.,
NEW YORK,
ATTENDING PHYSICIAN TO THE RIVERSIDE AND WILLARD PARKER HOSPITALS.

The influence of the temperature in estimating the severity of a disease is universally recognized. There are times, however, when the temperature alone, as a guide in the prognosis or in estimating the degree of infection, is sadly deficient.

Physicians are frequently misled in believing that a very high temperature means a fatal condition. On the other hand, we find the severest types of septic conditions in which the body temperature may even be normal.

In studying this condition I have invariably found that we should bestow less attention to the temperature and more attention to the heart as manifested by the pulse.

The thermic centre in a normal child is very sensitive. It is more sensitive, however, if the child is abnormal, as in rickets. To illustrate pyrexia in children, and see the rise and fall of a high temperature in a short time, we need only think of the ordinary type of acute milk poisoning. The toxæmia will frequently cause a temperature of 105° F. to appear within twenty-four hours after partaking of impure milk.

Under appropriate treatment, such as stomach washing, colon flushing, and eliminative treatment, a temperature of 105° F. can frequently be reduced to normal in twenty-four hours. As in a case just cited, the rise and fall of the temperature is a clear instance of the appearance and disappearance of the acute infection.

During my service at the Riverside Hospital and also in private practice a few important questions arose which are worth submitting to your consideration:

1. Is the temperature a positive indication of the condition of the patient?
2. Does fever invariably indicate disease?
3. Is the decline of temperature always a favorable sign?
4. By which symptom should we be guided in determining a favorable or unfavorable termination in this disease?

Coming back to the first question, Is the temperature a positive guide? I desire to lay special stress on the fact that we frequently encounter the most malignant forms of scarlet fever with a moderate rise of temperature. This does not imply that we are dealing with the apyretic type of scarlet fever. I have frequently seen septic scarlet fever with the temperature no higher than 100° F. in the rectum. On the other hand, the mildest forms of scarlet fever sometimes begin with a temperature of 102° to 105° F. We cannot, therefore, say that very high fever is the guide to the severity of a given case.

2. Does fever invariably indicate disease? No. That this is a positive fact I have frequently verified at the bedside. In the scarlet fever wards of the Riverside Hospital I have operated in cases of empyema in which there had been a normal temperature for several days, and I have seen other suppurative complications without a trace of fever. I have, therefore, in recent years laid less stress on the temperature curve, especially during convalescence. I know that I am not in accord with the teachings of many observers and authors on this subject, but careful bedside observation has convinced me that we lay too much stress on the fever and give the temperature curve, during convalescence, far more credit that it deserves.

Von Jürgensen, in Nothnagel's *Encyclopædia*, says: "The thermometer becomes a matter of course; every rise of temperature invites a searching examination, though often enough this is without result either for the time being or for the general outcome of the case. A rise of temperature above the normal indicates merely that something is not as it should be, and that is all." He also says: "A satisfactory and perfect understanding of the fever in scarlatina is to my mind impossible. The use of the thermometer until late in the convalescence—and this must be repeated again and again—is indispensable, if we would follow out the course of the disease. Sometimes it is only by such measures that we recognize impending dangers, and perhaps combat them."

Rotch says: "The higher the temperature at the beginning of the disease the more active the symptoms, and the shorter the prodromal period the more severe will be the case. An initial temperature of 40° C. (104° F.) points toward a severe case."

3. Is the decline of temperature always a favorable sign? In a case of scarlet fever, a drop of several degrees in the temperature does not always indicate improvement. Very frequently a complication will be detected when the temperature would indicate improvement. I believe that

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* Read by invitation before the New York State Medical Association.

the toxines of scarlet fever inhibit the proper action of the thermic centre in the brain, because the most malignant form of scarlet fever frequently shows no rise, or only a slight rise above the normal.

4. By which symptom should we be guided in determining a favorable or unfavorable termination?

The greatest attention should be bestowed on the condition of the heart. The pulse, in its character, its frequency, and its tension is the most important guide. The moment systemic weakness exists it can be detected by its effect on the heart. A pulse rate that gradually increases from 120 to 130, 140, 150, and upwards is always a grave condition. A careful examination of the heart will usually reveal a complication, and if a systolic murmur is present, then endocarditis has set in. When the pulse rate drops from 100 to 90, 80, 70, or even 60 in a child, during the course of an acute infectious disease, then danger is ahead, for very probably myocarditis should be suspected. The necessity for immediate support of the system is apparent if we study the heart and the pulse rate.

HEART SOUNDS AND MURMURS. FIRST SOUND.

In infectious fevers there is an increase in the length and intensity of the first sound heard at the apex.

In continued fevers causing degeneration of the heart muscles there is a shortening and weakening of the first sound heard at the apex.

In exhaustive heart strain seen in myocarditis the first sound is feeble and merges into the second sound. This condition is met with in diphtheria, scarlet fever, and typhoid, although any condition of the body which devitalizes may cause it.

A very instructive case in a child four and a half years old was seen by me last August at the Riverside Hospital. This child passed through a regular course of scarlet fever. Mastoid symptoms developed, although the temperature was normal. The patient was operated on by Dr. Rea. Several weeks later symptoms developed in the opposite ear without any febrile temperature. A double mastitis existed without showing any specific effect on the temperature.

I do not wish to imply that we should discard temperature taking, but I maintain that we should direct more attention to the condition of the heart, in addition to the temperature in children. My experience has taught me that we are facing a danger point when noting feeble or muffled heart sounds, or a bruit, when during this same time a normal temperature would have been a misleading factor. I have clinical records of a great many cases of sudden death following complications of scarlet fever, owing to leniency on the part of the physician during convalescence. The mortality in private practice is surprisingly high, and I can account for it simply by the one fact that children are not kept in bed long enough to permit the toxæmia to be modified.

A weakened heart damaged by the toxines of scarlet fever cannot stand the strain if the body is devitalized, as it could before the scarlet fever infection. The streptococcus, we know, is one of the most dangerous pathogenic microorganisms with which we have to contend. It is imperative, therefore, to treat every scarlet fever case vigorously for at least six weeks indoors, and then be less strict, if we wish to have successful results.

The statistics of the Riverside Hospital are very interesting. The children are usually of the poorest class of tenement house people, or children who are brought to this country in the steerage as immigrants.

CASES OF SCARLET FEVER TREATED IN THE RIVERSIDE HOSPITAL, NEW YORK CITY.

Year.	Number of cases.	Deaths.	Mortality. Per cent.
1903	835	76	9.1
1904, January to October	718	46	6.4

I am indebted to Dr. Watson, the resident physician, for compiling the statistics in this paper.

Statistics for the District of Columbia show the average per annum mortality in scarlet fever for the ten years ending December 31, 1903, to be 13.1 per cent.

The reason for the low mortality in New York city is very interesting.

1. All children are kept in bed under strict medical supervision aided by competent nursing.

2. No child is permitted to walk about until the heart's action warrants it.

3. The feeding is given at regular intervals and nothing is permitted to disorder the stomach.

4. All complications of heart, ear, or kidney are expected, and, if possible, avoided. In private practice the mortality is much higher. I have seen many patients who were permitted to romp about as soon as the temperature became normal, or after the first week of the disease. The systemic effect of the scarlatinal poisoning, particularly noted in the heart, requires serious consideration. It emphasizes the necessity for absolute rest at least three or four weeks. I have frequently seen severe scarlet fever cases both in private practice as well as in my hospital service successfully escape complications when the rou-

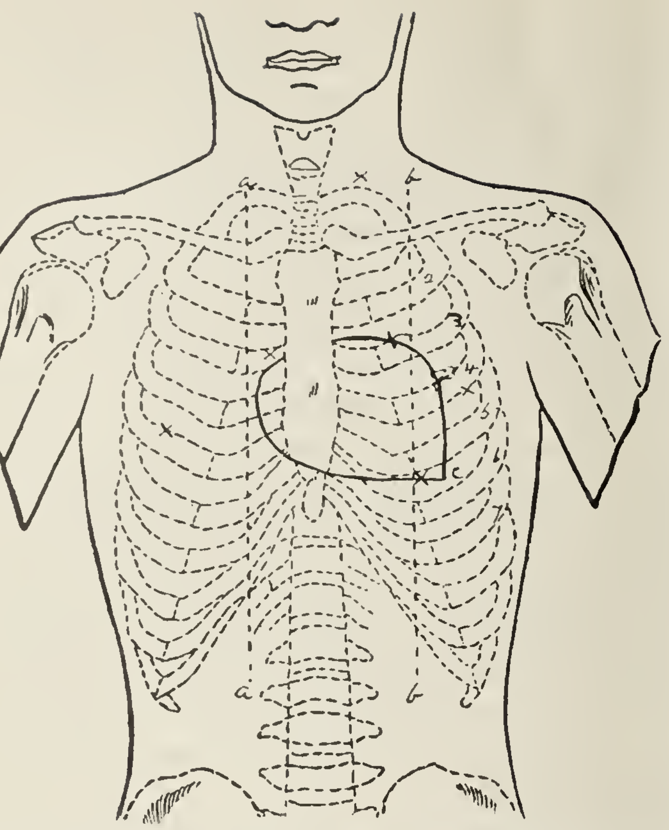

FIG. 1.—The heart in scarlet fever: *a. a.*, parasternal line; *b. b.*, mammary line; *c.*, apex: *x. x. x. x.*, location of murmur.

tine treatment, aided by a bland diet, and most of all when rest in bed was strictly enforced.

Joseph E., two and a half years old, was admitted to the Riverside Hospital, August 9, 1904, on the second day of illness. He was poorly nourished and underdeveloped. The chest barrel shaped and tapering in front.

The eyes and ears were normal; the throat was congested; a slight exudate was on tonsils; the eruption was moderate in intensity; the erythema was mostly on the thighs and elbows. The urine showed no albumin.

Examination of heart showed the upper border to be at level of the third rib from the parasternal line on the right side to the mammary line on the left. The apex was in the fifth intercostal space about one fourth of an inch to the outer side of the left mammary line. There was a loud blowing systolic murmur of maximum intensity at the apex, also very loud at the pulmonic orifice, but less so over the aortic; it was heard over the vessels of the neck and over the entire chest both front and back. The pulse ranged between 108 and 130; the temperature was normal.

August 22nd. The patient had a nasal discharge (the culture did not show the Klebs-Löffler bacillus).

August 23rd. Double otitis media. Circulation poor. Pulse rapid and weak.

In this case a heart complication, endocarditis, existed without any evidence of fever, during the second week of the disease. When symptoms of heart failure were very pronounced during the fourth week of the disease the pulse rate ranged between 96 and 108. During this time the temperature was practically normal.

A CASE IN PRIVATE PRACTICE.

Elaine K., a girl, five years old, had vomiting followed by an eruption of scarlet fever covering the entire body. The rash was distinct for three days and then faded. The physician in attendance said it was a case of mild scarlet fever. The child was up and about during the second week following the eruption. The stomach was not carefully guarded, as the child was given a too liberal diet. On the twelfth day from the beginning of her illness she suddenly had what the family called a sinking spell. Evidences of heart weakness were noted. Two days later, or on the fourteenth day of her illness, she was again put to bed. At this time she complained of pains in her joints. The glands of the neck were swollen. The urine was somewhat scanty. On the seventeenth day she had three very severe convulsions.

She was a well nourished girl, and had been very carefully looked after until this disease began.

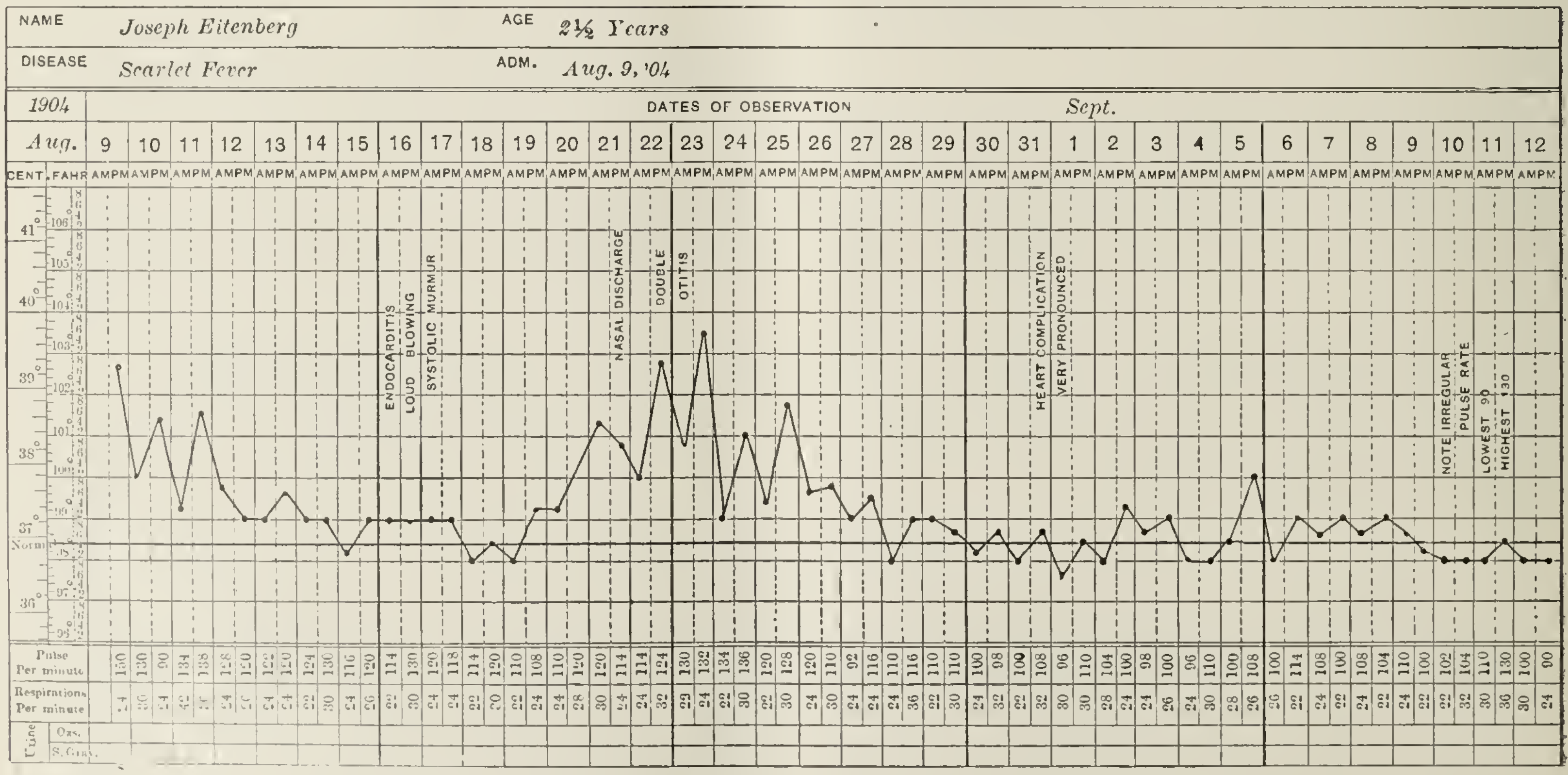

FIG. 2.—Chart showing temperature and complications in a case of scarlet fever.

She was seen by me on the twenty-first day of the disease in consultation with Dr. Marvin Pechner. Severe toxic symptoms were noted with marked anuria. Hardly an ounce of urine was passed during the day. She was œdematous and had the waxy appearance seen in acute nephritis. The heart sounds were muffled. The pulse rate was slow and irregular. The temperature was very slightly elevated, although a severe myocarditis existed. The highest temperature, 103°, occurred during the first week of illness. A résumé of this case shows the following:

1st. That the child was allowed out of bed too soon.

2nd. That improper diet was permitted.

3rd. That the temperature did not indicate the severity of the complication.

4th. That the heart and pulse showed the true condition.

5th. The case illustrates the ease with which we can be misled during the second or third week after the commencement of the disease, if a normal temperature is found.

Treatment.—First and foremost, put every scarlet fever patient in bed and keep him there at least four weeks. The temperature of the room should be between 68° and 70°. Ventilate frequently. It is safer to protect the body with sweet oil, lanolin, or carbolized vaseline.

Second. The temperature is no guide as to the time when a child should be permitted to leave the bed.

Third. The heart and the pulse should be the true determining guide as to the progress and the condition of the patient.

Fourth. The diet should be liquid and should consist principally of milk and alkaline waters.

Fifth. Stimulate the emunctories, as we know that we can eliminate toxines through the kidneys, bowels, and skin.

Sixth. A hot saline colon flushing, one or two quarts, at a temperature of 115° to 120° F., should be given once a day after the first week, regardless of its necessity. It will stimulate diuresis, also cleanse the bowel and nourish the blood.

The following drugs are preferred by me during scarlet fever: Antipyretics, none. Avoid them, owing to their depressing the heart's action. Sulphocarbolate of sodium, 5 to 20 grains, three or four times a day; for the kidneys hot salines and diuretics liberally; for the heart sparteine, strophanthus, and 5 to 20 drops of a 1 to 5,000 solution of adrenalin. This last named drug has a very stimulating effect on the heart's action; besides it does not irritate the gastric mucosa, nor has it a cumulative effect. If the pulse is watched we can frequently reduce a rapid pulse rate and steady the heart's action by the use of adrenalin. Hot baths, especially the hot air baths, seem to weaken the heart's action. It is a good plan to assist those organs in which complications are expected, long before the actual complication has set in, and thus try to avoid the latter.

65 East Ninetieth Street.

VENESECTION.

By GEORGE F. SOUWERS, M. D.,

PHILADELPHIA.

Plethora, per se, does not signify actual existing disease, so long as the individual is not aware that he possesses a breathing and circulatory apparatus, and so long as pain is absent, particularily in those localities prone to be the seat of acute inflammations, congestions, and apoplectic manifestations; but the instant that by symptoms, more or less oft recurring, of impaired respiration or morbid phenomena referable to the blood, its circulation and the organs and vessels concerned therewith, or tingling sensations in the extremities, notably the hands and finger tips, appearing and disappearing like a dream in the night, the impression being often just as vague, with persistent, but varyingly severe, or perhaps only grumbling headache, having its habitat in limited areas; plethora has ceased to be a minus quantity in the man's economy and has become a potent factor capable of dire eventualities.

Plethora, plus pain, equals threatening danger to the victim, the mathematics of which must be quickly and properly solved. To him of full habit, Nature is like, in manner, to the switch lantern of the railroad. The red, congested eye, the engorged facial integument, the deep colored lips and ear lobes, the short, thick, bull-like neck, the finger nails which seem to be striving, like a natural dam, to hold back and down the life current, which by its congested state would appear to be about to force its way to liberty, all unite to form the red light of the lantern which Nature constantly exposes to warn him of the danger which ever confronts him and the fate which may overtake him if certain absolute rules of guidance of his existence are infringed. The warning symptoms detailed in the opening lines of this article constitute the green light of the lantern, which, like the same color in railroading, signifies that his engine must be run with caution or a crash into the danger ahead will follow. The caution and crash are often almost simultaneous, so close does one precede the other, but if the warning is received and noted in time, and the brakes are applied, by altering the way of living and habits, the steam is cut off the overspeeding machine and the safety valve released, by proper direction and treatment, the hour of disaster may be, possibly, long averted; neglect of the caution simply courts destruction.

As the full blooded have from the inception of medicine, in all ages since the world began, so far as we have knowledge, been the most common victims of blood extracting, it would seem that it is and has been the consensus of opinion that they, as a class, require the more frequent resort to the lance and its confrères than do those whose Cassian look and outline seem naturally to call less for its employment. Even they, too, however, are often amenable to its soothing influence.

Age and temperament, when consciousness is present, must be considered when a resort to bloodletting is debated; the element of fear in children, and of innate dread and overstrained sensitiveness in adults of highly strung nervous organization, the morale of those phlegmatic specimens in whom natural cowardice and inborn terror of injury and pain exist, must be taken into account as influencing factors in modifying expectations of results. A child, driven into convulsions, or bordering conditions, by the sight or use of the agents employed for its relief from troubles likely to be benefited by blood depletion, would probably be worse off in the end than if permitted to take its chances without interference; similarly, an hysterical attack, precipitated in those bundles of nerves and imaginings we often encounter, by the contemplation of the treat in store for them, will not contribute to assist matters. As to the third class, their pitiful cringing and shrinking from the supposed terrible ordeal about to be realized introduces a moral consideration, the effect of which must be weighed; it is, fortunately, rare to encounter these individuals. In a few words, " nervous shock " is the element basing the three classes, and courses suitable must be adopted with each.

Laying down a general law for phlebotomy is a rather delicate matter; but it is, I think, a fair average rule to practise it in acute inflammatory affections (particularly of the more vital organs), accompanied by pronounced rise of temperature, with a pulse either bounding or of that tense, whipcord character that gives, on examination, the impression that the vessels are strained to high tension by the surging, feverish current within, which, in a mute yet pronounced manner, seems almost to appeal for release from the congested, fever heated system, by forces applied from without. On the other hand, the same prayer seems to be offered up by the slow, full, laboring pulse that follows an apoplectic seizure, which may also attend certain forms of heatstroke or sunstroke, other cases of this latter affection offering the first form of pulse mentioned.

While it is not customary in sunstroke to extract blood, we have learned, by personal experience, that the extraction of some ounces from full blooded specimens, victims of the sun's too ardent caresses, will assist recovery wonderfully, but when, either in apoplexy or heat prostration the patient is pale, flabby, and more or less anæmic, close your bleeding apparatus and do not attempt to rob him of that of which he has but little. Apoplexy, presenting this coloring of its picture, is almost always serous in character and expressive of the blood's depraved state. A systematic consideration of the question propounded had better be made by progression from the head downward, viewing the matter symptomatologically, as well as where conditions are so self-evident that a tyro in physic would intuitively, almost, recognize the ailment.

Where intracranial headache, recurring daily, its severity often being sufficient to drive the patient to bed, specially affecting a location in the anterior cerebral lobes, associated possibly with passing varying visual disturbances not traceable to optical defects, syphilis, rheumatism, or other such poisons, when the inhalations of gases, etc., by those engaged in certain businesses, are discounted as causative agents, when apparently causeless nausea occurs in cycles, this not depending upon a vitiated state of the urine, the migraine not varying greatly with or without the presence of nausea, and where the pain has extended over a period of weeks, or even for a year, suspicion should be aroused that cerebral hæmorrhage is threatening, and particularly if a history of ruptures of superficial veins of the skin, of vertigo, of nose bleed, possibly cutting short or relieving the vertigo, is elicited, it is well to bleed and do it handsomely, studying effect and not amount. That preapoplectic daily headache may precede for a twelvemonth the final onslaught was demonstrated by the death of a former patient, who, daily for a year past, rising in the morning without pain, would, as the day wore on, experience migraine which increased in intensity hourly; compelled to retire to bed by his sufferings every afternoon, he found that sleep only provided relief. Three years since this man went through the same programme. Six months from the initiative, with no preceding wasting, cough, tuberculous manifestations, or unusual exertions, a violent pulmonary hæmorrhage occurred, the blood appearing to simply well out of the nose and mouth. Another physician, close at hand, summoned me in consultation, after having employed ice to the chest and administered internal remedies, the result being temporary cessation of the outflow. I saw the case some hours after its inception, at which time recurring hæmorrhages were happening. Hypodermics of ergot, aseptic, turpentine internally, and thirty or forty dry cups to the chest and scapular region finally put a quietus to affairs. In the course of ten days the man, though weak, was up and able to slowly get about, evidently a pure case of pulmonary apoplexy. No lung symptoms again presented till his death; but note—from the afternoon of the blood loss his headache absolutely ceased till one year ago, when, I am told, its old habit returned. Within the last nine months of life this individual on two occasions illustrated that "coming events cast their shadows before;" while sitting and conversing quietly he suddenly realized that, for about three minutes only, a sense of hebetude, brain confusion, and absolute inability to articulate existed; bodily lassitude lasting for a few days followed these symptoms, which had been so slight and quickly passing that they were not noticed by those present till spoken of by the man. In view of the relief furnished by the original bleeding, it would appear as a justifiable conclusion to, in any elected manner, bleed occasionally the subjects of persistent headache, not trusting to Nature's election of localities. Had this person been seen professionally within the twelvemonth spoken of, this course would have been advised. In brief, cerebral apoplexy, excluding the serous form, should be bled at once, irrespective of the use of purgatives or other therapeutic measures. In sunstroke, associated with flushed face, congested sclera, lips showing by their color the demoralized blood condition, arteries thumping wildly, the mind clouded, wandering, or unconscious, I have drawn blood and seen good results follow. I may be wrong in my conclusion, but, from observation of some cases thus manipulated, I am of opinion that sequelæ usual to sunstroke are very greatly modified, stating the matter conservatively and not as a finality, for the experience of others may lead them to a divergent view. All are cognizant of the disintegrating effect upon the blood of this malady. The deleterious results of such a circulating fluid in the system are self-evident, and in pondering upon these granted premises a suggestion appears to me which I have never seen advanced; it may be an absurd proposition or it may be more rational than otherwise; indeed, if opportunity presents and conditions warrant, I shall at least make the experiment, and not only in this, but in another trouble not allied, but where the blood is loaded with lethal quantities of sewer or illuminating gas due to inhalation, the outcome of which, if not death, is pneumonia in those who, having absorbed large volumes of gas, yet survive.

Succinctly put, would it be good practice, having in either set of cases, a debased, detritus-loaded circulating medium worse than unfit for sustaining life's requirements, to dilute the concentration of the materies morbi present by extracting a fair quantity of blood and replacing it by subcutaneous injections of normal salt solution, whose absorption necessarily would mean a further dilution of poisonous materials, hence a reduction in their power for evil? The less concentrated the poison the more easily combated. Indeed, it has long been with me a debated question whether such an injection or several of them, without preliminary bleeding, of course, for the patient's naturally depressed state would veto that, would not be advisable in certain cases of typhoid fever. I refer to cases where there exists that peculiar ashen gray complexion whose uncanny aspect of itself almost proclaims the high potency of the poison absorbed, and somehow imperatively conveys the idea that the blood stream is saturated to the point of repletion with the invading enemy which is choking out its life powers. Such patients, when they have no early and pronounced delirium, have a peculiarly dazed look from the eye, while the sufferer appears as though he were, so to speak, melting away before you. It seems indeed as if his blood had been annihilated and the heart and vessels largely deprived of their natural occupants. Query: Would salt solution or even plain sterile water injections serve to dilute the virulence of the poison or in any way give the victim a better fighting chance for recovery? In any event, the experimental trial, in desperate cases if no other, could do no harm. So far as gas cases are concerned, the use of oxygen has not been forgotten; that is, not being discussed, but there is one point in the therapy, furnished me by an employee of the Philadelphia Gas Works, a man who has had many years' experience in handling those overcome by street and illuminating gas, that may be valuable to some one; personally, I have had no opportunity to try it. He tells me that weiss bier introduced into the stomach of a gas victim almost infallibly is beneficial. Its ingestion is followed by enormous belching of flatus and improvement of the patient. Its modus operandi he does not attempt to explain; that it produces results is, to him, sufficient. He insists that no other kind of beer, etc., answered, and this is proved by trial.

He also wisely demands that sufferers should be, if at all possible, and in all weathers, treated in the open air and not in the house, where atmospheric limitations naturally are greater. But our mutton cools in these digressions, and so return we to the dissection of our sheep.

In tumor of the brain, short, violent, remitting attacks of mania, or hallucination may happen, without premonitory symptoms; in a second, in the midst of a business transaction the flame lights up. A short, sharp cry, a spring to the feet, a violent tossing of the arms, with the hands clinched, to and fro in the air, not limited in direction, but recklessly striking everything at hand, the body lurching at all angles as it is propelled by the legs moving in a run changing course every few feet, while imprecations, disconnected words and sentences fall from the mouth, a sudden fall to the floor, and bodily struggles and contortions announce the attack to be on. Then a gradual subsidence of phenomena, the return to consciousness, an inability to remember aught that has happened, any globus or warning symptom, an immediate recollection of the point of break of the business in hand, coupled with the desire to resume transactions where ten or fifteen minutes before they had ceased, and the curtain falls upon a scene witnessed by me a few years ago, from onset to close, in a mill office I casually had entered. Before departing, the man told me of a similar and only attack sustained about six months previously, of long existent dull headache and of indistinct impressions at distant intervals of distorted visual images long preceding any other symptoms. Depletions by wet cups at the period of the first attack, suggested by his medical adviser, benefited him, he fancied, greatly, and his intention, upon reaching home, was to repeat the dose. I learned subsequently that a post mortem had, nearly a year after, revealed brain tumor, probably syphilitic, but my layman informant could not tell me its location. The analysis of this and similar cases is probably constant greater or less brain congestion due to tumor pressure partially occluding vessels adjacent, increased congestion natural to concentrated cerebrization, as in close study or business requirements, hence increased blood pressure upon the already irritable brain and nerve tissue, convulsive seizure, and relief by bleeding due to lowering of blood pressure proportioned to amount removed from vessels. On this principle depends perhaps the relief obtained by using saline purgatives, whose action is to bleed the man into himself via the bowels, pressure reduction ensuing. In those cases of posttyphoid, spinal, lumbar, sciatic, and nomadically occurring pains, the typhoid residual uneliminated, or morbidities engendered by the original virus, seem imbued with power to cause congestive areas with resultant pain. That congestion is the working agent, in part at least, is demonstrated by pain disappearance following watery evacuations and local depletion by cups, etc. It was long ago shown that conditions of the spinal cord, finding origin in transmitted shock, as where in railway accidents, etc., the arms or legs have instinctively been braced on the back of the seat ahead at the moment of danger, so receiving the greatest impact of the blow and thus indirectly transmitting the force to the column and cord, were benefited, if seen early, by local or general depletion. A very insidious enemy is at work here, his invasions beautifully masked, not becoming apparent until almost irremediable evil has been effected, and often so long deferred from the day of the accident that suspicion of cause and effect is not aroused. The man has come out of the danger seemingly unscathed, shaken up it is true, but a few days of rest recruit that, and he considers himself lucky. Weeks, months, or a year go by, then notice is taken that he tires easily, that his back is rheumatic indistinctly, his limbs have not their old spring, at times are heavy and leady, he is nervously irritable, perhaps morose, or it may be that areas of hyperæsthesia or analgesia intermittingly occur, or a slight decrease in the acumen of the special senses is noticed. Look out for that man; a low grade of congestion and inflammation of the cord, its membranes, or both, with consequent microscopic changes, has been silently going on since the trauma inflicted, but not realized, long before. Eventually the cerebrum is involved, then the finality. Absolute rest and indicated remedies—ergotine, adrenalin, bromides, etc., enter naturally also into the therapeutics. Epilepsy, occurring as the aftermath of head injuries, where periodic cycles of congestion add fuel to existing cranial irritation, is probably more favorably, if but temporarily, influenced than the commoner forms of the disease by bleeding. It is worth trying as a tentative proceeding at least.

Where general arterial atheroma is discovered before a brain lesion precipitates, an occasional blood extraction, by reducing the quantity circulated, hence lessening the amount of mechanical and working strain against the non-elastic vessel walls, may act as a safety valve. Manifestly arteriotomy must not be the method selected.

Concussion of the brain accompanied by prolonged unconsciousness without skull fracture symptoms, where minute blood exudates due to infinitesimal lacerations of capillary vessels (pin point hæmorrhages) may be the pathological condition, would not be mistreated, as a rule, by the application of the lance or its adjuncts in bloodletting, as also vertigo and repeated transient attacks of blindness, unassociated with heart, eye, kidney, or digestive causatives. Acute meningeal inflammations are responsive to this persuasive measure in selected cases, but care must be exercised that, in those harboring the malarial poison, one is not misled. The late Professor Da Costa has pointed out that the symptoms of most violent intracranial inflammations may be but the masquerading of this many sided poison. Where the phenomena repeat themselves periodically about the same hour daily or alternate days, antimalarial therapeutics had better be employed. Hysterical experts often assume symptoms, as do also professional malingerers, inclining one to engage in blood spilling, but use your powers of observation and stay your hand unless as a deterrent to further performances of the trick by this latter class. Sometimes a threat of its use made within the hearing of the former is very efficacious as a curative influence.

Acute inflammations of the middle and internal ear, denoted by excruciating pain in the organ, a sense of tension, pulsation, or roaring, hearing obtunded or even temporarily suspended, possibly tenderness on pressure, a systemic febrile condition united with indistinct chilly sensations, slight delirium perchance, in other cases slight vertigo, on inspection, the drum congested, may be slightly bulging, find pronounced relief by local bleeding. In infants, too young to voice complaints, the source of their agony is often unsuspected till a ruptured tympanum exuding pus, etc., affords relief and diagnosis simultaneously; but long ere thus accomplished, the latter may be made by noting the constant crying, accentuating at intervals as the waves of pain intensify, and decreasing as the misery temporarily ebbs in volume, the head thrown back over the mother's arm and rolling from side to side as ever and again the arms thrown up seem as though they would thus pilot the way to the rock upon which the sufferer is dashing. When these symptoms show and other causes are apparently eliminated, a fairly safe diagnosis can be ventured and a marked relief attained by local depletion, this followed by required medication.

The clouding and darkening of the " window of the soul " by keratitis, iritis, and in fact all inflammatory affections, particularly of a sthenic type, excluding ophthalmia neonatorum as a rule, has in early bloodletting, locally or if deemed expedient generally, a potent fighter for its restoration to its pristine state, but its use must follow quickly upon the ignition of the inflammatory fires, and not be deferred till exudates, etc., have thrown their curtains upon the scene. The merits of the agency in removing the sable from blow contusion are questionable, traditions of the public to the contrary notwithstanding.

As to the spinal column, resembling greatly in its structure and diseases its father, the brain, its treatment of allied states by the agency being considered is similar to that discussed when reviewing that organ. Attention may be drawn, though, to the fact that those neuralgic and rheumatic pains in the tip of the coccyx, which so often fail to respond to therapeutics, are often remedied by local loss of some ounces of blood; this is true also of the horrible, boring, toothache-like pain, relieved, curiously to say, by that which, by faulty use, engenders it, viz.: sitting down, and having its habitat in the same location. The agony, for it sometimes comes to that, on assuming the erect position is at times so exquisite, especially if walking is attempted, that, as the cold sweat breaks out, and an involuntary groan is wrung from the tortured one, he drops into the nearest seat obtainable. The trouble is not founded upon rheumatic, neuralgic, or systemic reasons, but is purely traumatic in origin; neither is it frequently encountered, nor, what is more likely, is its causative influence or possibility recognized, hence it is wrongly classed.

The European aphorism " that all good Americans can be recognized by the fact that upon sitting down they instinctively attempt to rest their feet upon something higher than their heads " concretes finally into the results systematized above with some of the exponents of the national custom, as the attaining of animal comfort eventually is attended by some evil born corrective sprite of Tantalus, and we have as a penance to our idea of ease and rest the state described. The malady occurs most commonly to those in the habit of sitting low down on a chair, especially if its seat is hard and unyielding, thus bringing the majority of the body weight and pressure upon the coccyx. The individual accustomed to assuming this position, with the legs stuck straight out and resting on the heels supported by the floor or by some convenient higher object, particularly if maintaining it habitually for long periods, is the one most liable to attack. The literally, in this case, long suffering, compressed coccyx, upon which each change of position by its owner means mechanical use of it as a fulcrum, at last rebels. That traumatism is the factor is demonstrated by the coincidence that the like insignificant damage inflicted by accidentally sitting upon the iron ring of a hitching strap originates similar symptoms. Rest and local applications failing of relief, a few ounces of blood, via leeches, oft solves the problem.

Inflammation of the antrum of Highmore, or of teeth apices tending to abscess, suggest leeches, the naturally awkward field of operation being reached by enclosing the animals in test tubes maintained in place by the operator's hand. For evident reasons the proceeding is not often used. Violent amygdalitis, by old time doctors, was treated by external leeching of the throat; indeed, the patient was lucky if a systemic bleeding was not added.

As we approach the chest we arrive at the field the treatment of whose diseases has probably caused more intentional blood spilling than those of the rest of the body combined. Acute sthenic maladies, here located, seem naturally to tempt to the using of the measure, and its effects have been alternately lauded and decried in all generations, the slogan of one age the derision of another, almost ever failing to be viewed from the point of the happy medium of the proper and improper. Cases for its employment involving, as this does, the fact that where pathological or abnormal tissue states are grouped under one name, as for instance pneumonia, the personal equations sui generis each variety reasonably constitute a major quantity in the equation of treatment plans. Logically, the slow, creeping pneumonia of old age, the asthenic varieties in depraved economies, whose tissues are already starved, cry aloud for sustenance and stimulants, rather than for depletory measures that serve as quenching waters to the consuming fires of sthenic pneumonia. Early action, however, in the stage of engorgement and before profound damage has occurred, is the keynote. If nothing better can be alleged for it, the mechanical relief of the laboring heart is valuable. The few ounces removed, some will say, can count for little; superficially viewed—yes—but contra, knowing the average normal pumpage and frequency of the exhaustive drain upon the reserved force fund of the organ under pneumonia requirements, engineering mathematics would demonstrate that every ounce lessened relieves engine power required and permits of greater rest to the pump. In acute, active pleurisies, the negative form of bleeding—the dry cup—is often useful. In spurious angina pectoris, heart and chest pains the sequelæ of grippe, in asthmatic seizures, lumbago, and sciatica, the dry cup is available. Those passive lung congestions originating in heart defects, as also kidney and liver conditions that dam back the circulation, do not regard the lance and its allies with an altogether unfriendly eye at times, for their relief means also help to the laboring chest engine on whose throbs all centre. Endocarditis and pericarditis are responsive often to the soothing influence of local or general depletion used as an adjuvant to remedies. In persistent hiccough, of unassignable causation, and where antispasmodics, bromides, hypodermics, electricity, and local counterirritants utterly failed, the writer, in two cases, as a forlorn hope and last sheet anchor, turned to dry cups over the diaphragm and the cervical course of the pneumogastric, and succeeded in dragging victory out of impending defeat. Had one case only thus been benefited, mere coincidence might be assumed, but a like event, many years after, in another person, was confirmatory evidence that, in some cases at least, the end sanctions the means; it was a case of any port in a storm and luckily this haven gave good anchorage; the rationale, however, cannot here be considered.

Abdominal requirements, suggesting blood loss, are rather surgical and obstetrical than medical, except as earlier noticed in the kidney and liver morbidities influencing circulatory states, and the blood engorged spleen of a malaria saturated system. A prophylactic bleeding, among those resident in areas of malaria of high potentiality, where every one had a spleen and liver and knew it, was formerly customary perennially. "Having the shakes" spelt "get bled" aside from any medical refreshment indulged in. With our knowledge to-day that man's blood is a lunch counter and incubator for ex-tenants of some wandering mosquito, and that these intruders are not doctrinaires of "race suicide," but exponents of the "standing room only" principles. The practice constituted a philosophy not understood, but practical, the utilitarianism of which was that a given amount of blood extracted meant removal of a proportionate number of "shaker families," ergo, poison dilution and a consequent concentration of the quinine armies against the invaders' remnant.

In the obstetric field, bleeding is nearly a lost art, though at one time it was deemed essential to her well doing that every parturient be bled, particularly if at all dropsical. Stubborn, slow, dilatation of the os at the time of labor meant bleed the woman and so relax the os. Puerperal convulsions, either during or after labor, and particularly after, will often subside under bleeding.

Certainly, as promptly as possible, empty the uterus in concurrent labor and convulsions, thus perhaps terminating the seizures; if rapid delivery, for valid reasons, cannot be accomplished, convulsive attacks still racking the system—bleed. Ether, chloroform, etc., may lay the storm, but don't, if matters grow serious, tack about from drug to drug. Make the grand coup yourself by your lance, watching effects on both uterus and patient, and seize the proper moment for delivery. Packing lint wet with an eight per cent. solution of hydrochloride of cocaine in and about the os will, in a few hours or less, generally induce relaxation, and in mere threatened convulsions may thus, by its influence upon the madly irritated os, avert recurrence to the knife. A wailing moan, as though the mind realized the terror of the coming storm, the eye fixed in a frightened stare, a sharp tremor of the body, all occupying but an instant, then the precipitation of one convulsion upon another at greater or less interval, and the postpuerperal convulsion has made advent. The rolling eye, the grinding teeth, the sardonic facial grimaces, the horribly convulsed body and thrashing limbs impress onlookers as almost a mosaic of the Inferno. The radial pulse feels to the examining finger like a tensely drawn harp string, is racing at top speed, its beat showing by its wickedly wiry quality the turmoil and desperate straits of the woman's forces. Now, if ever, has the moment arrived when decision and ability to take desperate chances and to doggedly hold on must come to the fore in the doctor's makeup; bleed that woman, and bleed her well—your guide, the pulse—bleed it down and bleed it up; as it sinks lower and lower it loses the devilish characteristic, and as the bleeding goes on its character becomes softer and beats fairly normal. Then you have done enough. The cardinal rule of all bleeding of a verity here applies, viz.: "bleed for effect and not for ounces." How much can safely be taken? The writer drew from one woman thirty-five measured ounces—a stiff quantity—but she lived for ten years after. Better sink your ship when drifting in a storm upon a lee shore by a desperate attempt to club-haul her than let her go into the breakers for want of the manly courage that abandons not hope, but pushes expedients even to the danger line in striving to save her. The postscarlatinal uræmic convulsion can be fought, and successfully, by cups wet or dry, used as adjuncts to usual medication, using over the kidneys or back of the neck. Dry cupping, over the shoulder, in neuritis due to injury by falls or blows and followed by arm paralysis, acts favorably.

Surgically, the employment of bleeding presents a wide and distant vista that goes back to dim antiquity, for surgery was probably born before medicine. To-day, in "inoperable" aneurysms or where operation is declined, bleeding is used purely for pressure reduction, as it also was, when by the introduction of horse hair, etc., into the sac obliteration by clotting, etc., was attempted, on the principle that reduction in systemic amount of blood naturally assisted the result sought.

The pain of joint sprains is alleviated by local bleeding, this being also true in regard to inflamed joints due to other causes, such as acute gout and rheumatism. The horrible ache of the homely bunion can, too, be influenced.

When in external hæmorrhoids the patient's dread of the knife or operative measures forbids the evacuation of the clotted débris, etc., bleeding by leeches should be tried.

Periostitis, the result of blows, etc., as upon the tibia, in early stages suggests leeches. A proposition is here to be introduced that many, on first view, may stigmatize as the wildest vagary, and which may subject the proposer to the ridicule and laugh of the reader, and perhaps justly, but leniency is besought, as the writer has had no practical experience with snakes (of alcoholic or terrestrial origin), and hence is making but theoretical deductions. It is fairly well ascertained that the poison of certain snakes kills by its pernicious influence on nervous structures, that the virus of others of the reptilians destroys life by its profoundly disorganizing effects on the blood, that those who escape death by the latter agency suffer for long periods after from boils, abscesses, etc., the outcome of this disintegration; now, with those whose environment is such as to afford comparatively frequent experience with this venom immediate excision, if circumstances permit, of the bitten spot, the subsequent bleeding being encouraged, is the rule of action. Empyricism perhaps, but grounded, doubtless, on the teachings of experience as to results actual or remote. Query: If blood disorganization, proportioned certainly on the amount of poison in the blood, is the eventual death producer, would attenuation of the poison quantity circulating by a free bleeding, conjoined with salt solution injections, which by absorption into the blood vessels would serve to dilute concentrated virulency of the virus, be productive of good?

The basis of the argument may be thus formulated: "The virulence of any poison is directly as its concentration and inversely as its dilution"; pharmacal antidotes, potassium permanganate injections, etc., not being germane to this paper, will not be discussed any more than have the medicines given in other diseased conditions herein mentioned.

The localized inflammation and pain, which latter is often exquisite, resultants of spider and other poisonous insect bites is greatly lessened by application of leeches at the bitten point.

Buboes and testicular inflammations, we all know by experience (it is hoped not personal), in the formative stages admit of local depletions. Before the advent of vein ligations, exsections, and pressure bandages for extensive varicosities, the lance had its advocates as a relieving agent, but this is of the past. In the very early stage of whitlow and felon good service is often rendered by local leeching over the diseased area.

Local, and in years gone by, general bleeding in some cases formed part of the treatment for inflamed and ulcerated uterine mouths and necks, but other methods are now generally employed. But where from cold or like cause acute suppression of the menses occurs, attended by violent headache, diffused pain through the body, the lumbar region feeling as though it were stretched and bent on the rack, relief of the symptoms may often promptly be had by dry or wet cups over the lumbar region, or, in the absence of these, actual bleeding may be practised.

In conclusion, the author wishes to state that, First, the origin and history of venesection have not been reviewed, nor the means and methods used, and after-treatments.

Secondly, that this remedy is not applicable to every evil under the sun, but that wise discrimination, as in all else in life, coupled with firm determination in the hour of necessity, must be the guiding North Star of its practice.

Third, that in advancing certain propositions, somewhat perhaps out of the beaten track, the hope has been entertained that some one trying them may perchance happen upon something that will add to the aggregate of our knowledge of how to relieve human miseries.

Fourth, that, while antiseptics may not be used where leeches are to be applied, the first and last great law of surgery must govern where blood is to be drawn—absolute cleanliness of all parties, instruments, and dressings—and, finally, that, if mayhap, too much blood seems to have been drawn, we have, in subcutaneous injections of heart stimulants and normal salt solution or even warm sterile water, the weapons with which to fight the conditions to a successful termination.

160 MANHEIM STREET.

TRAUMATIC HÆMATOMA WITH EVANESCENT APHASIA AND HEMIPLEGIA, FOLLOWED IN THE COURSE OF YEARS BY INVETERATE AND SEVERE HEADACHE; OPERATION; RECOVERY.

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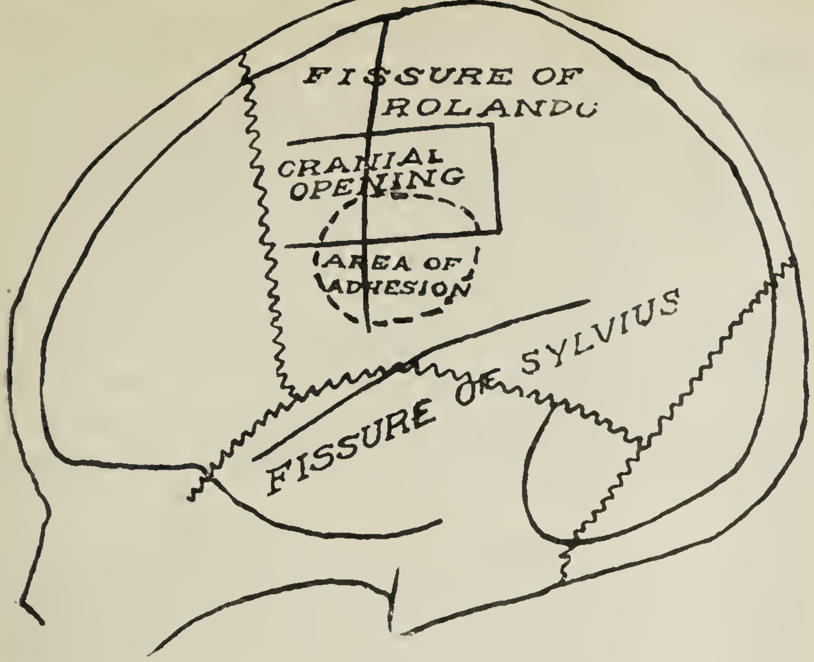
Some time since, about the latter part of June, as I recall it, I was asked by Dr. Christopher D. Hill, of Jersey City, to consult with him respecting a young man afflicted for a long time by a severe and obstinate form of headache. The history of the case, despite the absence of striking novelty, is, I think, sufficiently interesting to justify the present record of its more salient features. They are, briefly, these:

C. N., a young man in fair health, received about eleven years ago a severe blow on the left side of the head. Though dazed by the violence, he was able to get upon his feet and stagger off; but, on arriving home, or shortly afterwards, he became unconscious, remaining so for several hours. On emerging from the attack, his power of speech was gone and his right side paralyzed. Subsequently, he again lost consciousness for some hours; but recovered ultimately as before. The hemiplegia and aphasia persisted, however, for some time; and it was only after the lapse of weeks that he could either articulate or get about. About this time he suffered from repeated attacks of Jacksonian epilepsy, and later, and for some years as he states, from "flightiness," the latter consisting of lapses of memory and confusional states that caused him great inconvenience and mortification. When I saw him in June, these seizures had become very rare, if indeed they had not wholly disappeared. A new complication, however, had arisen: for a year or more he had been afflicted by atrocious and unremitting cephalalgia. There was nothing very typical about this pain; he described it as general, involving the whole head, from right to left, from front to back, with possibly an occasional tendency to increased acuity in the left parietal region. Pressure over different portions of the scalp and upon important nerve stems disclosed no unusual sensitiveness; while the ophthalmoscope could find no token of any increase in intracranial pressure.

Motility was not appreciably affected; there was neither pronounced difference in the grasp of the two hands nor any disturbance of locomotion. The right patellar tendon reflex was, however, a trifle increased. Of disordered sensation there was none save the cephalalgia. To abate this, despite the absence of a specific history, the iodides had been given in large doses, and most of the analgetics invoked, but without result. From morphine alone was relief to be had, and that of the briefest.



Traumatic hæmatoma; operation.

Depressed, haggard, and thinned by his sufferings, the patient was urgent in his demands for succour of some sort. Swayed by his forlorn appearance, and mindful of the history of a fugitive hemiplegia with convulsions, I at length advised that the skull should be opened in the left parietal region, hoping in this way to effect the removal of possible sources of irritation (adhesions). A consideration of the pathological sequences of hæmatoma will show that this proposal was the offspring of something more than a daring hope.

During my absence from town this summer the recommendation was skilfully carried out at St. Francis Hospital by Dr. Hill. His procedure (see diagram) was substantially as follows: At each corner of a quadrangle, measuring about two inches on each side and embracing in its area that portion of the left parietal bone situated immediately above the anterior central and posterior central convolutions, an opening was made with a small trephine. The bone between these openings was then divided by a chain saw, so that the square disc of bone between the trephine openings could be turned back as a flap, periosteum and scalp remaining thereupon, the latter, uncut on one side, serving to maintain the circulation. The condition disclosed on elevating the bone was as follows:

1. Slight thickening of the dura at the upper portion of the opening, but no adherence to the bone.

2. At the lower portion of the orifice and extending well below its inferior margin, firm adhesion of the bone to the thickened dura.

Pressing downwards with instruments and fingers, the adhesions were thoroughly broken up; and nothing further showing, the bone was replaced, sutures were put in, and the needful bandages laid on.

The result of his skilful undertaking was communicated to me by Dr. Hill shortly after my return to the city in October. I then learned to my gratification that the patient had made an uneventful recovery from the operation, and that his cephalalgia had entirely disappeared.

The question of the *modus operandi* of the operation, of the manner in which relief was obtained by it, involves at once the pathogeny of hematoma and the morbid physiology of intracranial headache, both elements, especially the latter, being still clouded by a considerable obscurity.

On the one hand, we have the insensitiveness of the hemispheres, demonstrated again and again by both vivisection and operative incursions; on the other, the fact that neoplasms imbedded in their substance may, and often do, give rise to excruciating head pains. The older writers, some of them at least, were given to the opinion that direct irritation of the ganglionic matter was itself sufficient to account for the pain. This view, contrary to physiological experience, was earnestly combated, however, even by their contemporaries. Thus, Dr. Symonds, writing in 1858 on dolor of intracranial origin, observes that "all analogy must further look to the nerves as the source of pain, though some writers are hardy enough to doubt the necessity of nervous matter as instrumental in sensation." (!)[1]

In our day inordinate increase of intracranial pressure would doubtless, under the supposed circumstances, be held responsible for the occurrence of the pain. Ay! but acting how and where? Many authors, Symonds and Niemeyer among them, have sought to answer these questions. The former looked to irritation of the ramification of the "suboccipital accompanying the vertebral artery, and of those derived from the sympathetic as the true sources of 'brain-pains.'" His theory of the manner of such irritation is not convincing. Niemeyer,[2] on the other hand, holds the filaments of the trigeminus going to the dura mater to be those, the irritation of which gives rise to pain within the skull. Having set up and defended this thesis he endeavors to explain that interesting collateral of headache, hyperæsthesia of the special senses. "The great sensitiveness to impressions on the nerves," he thinks, "depends on the increase of excitability, caused by the cerebral hyperæmia, or by the hyperæsthesia of those portions of the brain through which peripheral irritations are perceived. The patients do not exactly feel, see, and hear more sharply than ordinarily, but they are annoyed by irritations far weaker than such as ordinarily annoy them. Light troubles them; a slight sound or an insignificant irritation of the nerves of touch excites disagreeable feelings. Morbid excitation, which must not be identified with increased excitability, of the same central parts causes the dazzling before the eyes, seeing spots, roaring and buzzing in the ears, the sensation of formication, or of undefined pain, which are not induced by peripheral irritation."

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[1] The Gulstonian Lectures on Headache, *Medical Times and Gazette,* 1858.

[2] Niemeyer's *Practical Medicine.* Vol. II, p. 159.

Then Erb, adverting at some length to the conflicting opinions prevailing as to the relative sensitiveness of the different intracranial structures, is impelled to the conclusion that, "physiology affords little aid in determining the sensory nerves in which the irritation is seated. Experiments upon the sensibility of the different structures in the interior of the skull have given contradictory results; for, while Leyden, Hitzig, and Ferrier have found the dura mater to be highly sensitive, Pagenstecher ascribes a very low degree of sensibility to it. Further, "the greater number of experiments seem to show that the pia mater is also but slightly sensitive, and the same may be said in regard to the greater part of the substances of the hemispheres." Ultimately, however, he concedes that the dura mater is to be included among the sensitive structures, "since it receives sensory branches from the trigeminus and vagus," adding that, perhaps the nerves of the chorioid plexus described by Benedict are of a sensory nature and "may be answerable for the 'internal' headache sometimes complained of." The case constituting the text of the present writing has, I think, something more than a passing interest. It illustrates again and in a vivid manner the high degree of hyperæsthesia of which the dura is capable when attacked by certain morbid processes, and this irrespective of anything physiology can tell us touching either its sensitiveness or insensitiveness, when free of disease. Further, we have the informing and gratifying issue, the disappearance of the pain, immediately following the breaking up of the adhesions.

In concluding this short summary one other question presses for an answer: Was the original hæmorrhage altogether outside the dura? Although the membrane was not divided at the operation, I feel constrained to believe that had this been done undoubted, if slight, evidences of effusion below the dura would have been discovered. It is true that, in view of the late operation and the patient's early recovery from his hemiplegic symptoms, the question is an academic one. However, the very completeness of that recovery would of itself lead logically to the inference that the hæmorrhage must have been relatively small and well absorbed. The major trouble, then, was external to the dura, the effusion, due, it may be, to rupture of the middle meningeal artery, going on to coagulation and organization, to the formation of connective tissue membranes and adhesions.

With a view to prognosis and operative interference, various attempts have been made to determine betimes whether a meningeal hæmorrhage, following traumatism is extradural or intradural. While these efforts have not yielded very satisfactory results, several neurologists have not hesitated, when focal symptoms due to traumatism were sufficiently pronounced, to have the skull opened, and the coagulum or its immediate sequelæ removed, regardless of whether the effusion had taken place outside or inside the dura.

While the pathological anatomy of hæmorrhagic internal pachymeningitis, an accidental disease, coming on as the sequence of chronic alcoholism, paralytic dementia, chronic hereditary chorea, renal disease, and phthisis, is sufficiently understood, it is well known that a divergence of views prevails as to the sequence of the various changes. Virchow maintained, so far as I know up to the time of his death, that inflammation of the dura is the primary event, and that the formation of vascular membranes and the occurrence of hæmorrhages therefrom are to be regarded as consequents only. Huguenin, on the other hand, perceives in the hæmorrhage the primary alteration, while the connective tissue membrane is held by him to be the sequence of the organization of the coagulum.

However the controversy may ultimately be decided, it is certain that for interpreting the course of events in hæmatoma of purely traumatic origin, Huguenin's doctrine appeals with all the enticement of a theory in obvious agreement with the facts. Here, at least, precedence must be conceded to the hæmorrhage, although subsequent secondary effusions due to rupture of the delicate vascular membranes evolved from the clot, occur no doubt. By this interpretation of the appearances found on autopsy the repeated occurrence of severe cerebral symptoms after rapid improvement, which is such a striking feature in these cases, is readily accounted for.

53 WEST THIRTY-EIGHTH STREET.

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Possible Merging of Ohio Associations.—The Union Medical Association of Northeastern Ohio held its one hundred and thirty-third quarterly session on November 16th in the Cleveland Medical Library Building, No. 586 Prospect Street. In the preliminary business meeting the question of merging this association, which takes in fourteen counties, and which has a membership of between 150 and 200, with the Sixth District Medical Association, was discussed, but action was deferred until the annual meeting, which will be held in Akron February 9th.

THE RELATION OF DISEASES OF THE STOMACH TO AFFECTIONS OF THE MOUTH, NOSE, AND THROAT.*

By ROBERT LEVY, M. D.,

DENVER,

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A careful review of laryngological literature impresses one with the fact that while there exists a relation between diseases of the upper air passages and those of the stomach, this relationship is not well defined, nor is the interdependence of diseases of the stomach and those of the mouth, throat, and nose separated distinctly from affections of the gastrointestinal tract, and in fact from those of the entire digestive system.

Beverley Robinson (1) in 1888 called attention to the association of diseases of the digestive apparatus with those of the nose and throat, and Bosworth (2) lays particular stress upon the fact that the pharynx is a portion of the digestive tract and as such may be involved in affections of the lower digestive apparatus. Lori (3) is quoted in the *Transactions of the American Laryngological Association*, 1896, as saying that gastrointestinal catarrh may be either caused by or be the result of chronic throat or laryngeal catarrhs, and our common experience is that great difficulty is encountered in determining whether gastric disturbances cause affections of the upper air tract, or whether diseases of the upper air passages produce disorders of digestion.

It is a matter of common experience that many diseases of the mouth, nose, pharynx, and accessory cavities resist treatment directed purely to the relief of the local conditions, until measures intended to correct general disorders are instituted. Wingrave (4), at the meeting of the British Laryngological, Rhinological, and Otological Association, held in 1899, classifies the treatment of diseases of the upper air passages in three groups, first, those in which local measures are indispensable; second, those in which general treatment is indispensable; third, those demanding purely constitutional treatment; showing that he recognized the important relationship between general affections and those of the special organs, and dealing especially with affections of the digestive apparatus.

From a purely clinical point of view, three positive statements may be made: first, that certain affections of the upper air passages and the adjacent cavities are causative in a measure of some form of stomach disturbance; second, that certain stomach disturbances are the cause of certain affections of the upper air tract; third, that the relationship existing between digestive disturbances and certain diseases of the upper air passages is so close that the treatment must necessarily involve attention to both conditions. Acute inflammations of the upper air passages, according to Brown (5), " will create disorders of digestion by direct infection through the mass of mucopurulent secretion, loaded with bacteria, which finds its way into the stomach." Turck (6), of Chicago, showed by experiments that the same microorganism was found in certain catarrhal affections of the pharynx and in the stomach. Boas (7), Fischer, Spivak (8), Seifert (9), Cobb (10), and others have shown that the swallowing and subsequent fermentation of catarrhal discharges from the nose and nasopharynx are directly productive of dyspepsia, while Seifert and Coffin (11) have attributed, in addition, diseases of the pharynx to direct infection from food vomited in cases of digestive disease. Robinson showed that eructations containing abundant butyric acid might cause chronic catarrhal pharyngitis, while numerous authors ascribe catarrh to the inhalation, particularly at night, of vitiated air, in cases of foul smelling diseases of the accessory sinuses and atrophic rhinitis. Einhorn (12), on the contrary, believes that few cases of gastric catarrh result from the swallowing of perverted nasopharyngeal secretions.

Among complications of empyema of the accessory cavities of the nose, Lichtwitz (13) found dyspepsia and dilatation of the stomach in four instances.

We have been led to believe that numerous conditions of the mouth, particularly those associated with ulcerations, are usually complications and results of gastric disease. This has been merely a statement made without sufficient proof or evidence. Butlin describes no affections of the mouth directly dependent upon diseases of the stomach. Furred tongue, which follows too free eating and drinking, particularly at night, is due to changes in the saliva. The dyspeptic tongue, red and denuded of its epithelium, Butlin (15) ascribes to nerve irritation. Thrush is usually the result of impaired general nutrition, which may be, of course, dependent upon disturbed digestion. In this affection, local causes, such as direct infection from pathogenic bacteria and bacteria of fermentation, are more important. Excoriations of the tongue are perhaps the most common of the mouth affections which may be directly attributed to dyspepsia, although slight injuries are usually the exciting cause, according to Butlin (16).

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* Read before the American Laryngological, Rhinological, and Otological Association, June 2, 1904.

It is nevertheless true that, although no direct causative relation can be traced between diseases of the alimentary canal and certain affections of the mouth, nevertheless they may be and frequently are associated. This is especially evidenced in that rare and serious disease which exists in cattle and which was first described in man by Sager in 1765, known as foot and mouth disease, in which vesicles were found on the tongue and in the mouth and in which very serious gastroenteritis existed.

One is too prone to attribute bad breath to diseases of the stomach, while as a matter of fact this disagreeable symptom more frequently results from retained and decomposing secretion in the crypts of the tonsils and other lymphoid follicles in the pharynx and base of tongue.

Among the diseases of the nose, which are more especially associated with gastrointestinal affections, are vasomotor rhinitis, nasal irritation, and red nose. Ziem (17) has shown that diseases of the accessory cavities are directly productive of digestive disturbances. In the nasopharynx Coffin (18) showed that of 30 adults suffering from postnasal catarrh, 20 had affections of the stomach which were demonstrable by the examination of the stomach contents. He also found that of 15 children suffering from adenoids, 10 had affections of the stomach.

One of the most common diseases of the pharynx is chronic catarrhal pharyngitis, and it is a matter of every day experience that patients in whom no nasal cause can be found for this affection present sufficient evidence of gastric catarrh to warrant treatment of the latter affection and to base the prognosis of the pharyngeal affection upon that of the gastric.

Various disturbances in sensation are closely allied to some digestive affection. Particularly is this true of paræsthesia and hyperæsthesia of the pharynx. Urticaria of the mucous membrane of the throat is a serious, and may possibly be a fatal, affection, and is largely dependent upon digestive disturbances, as is well known to be the case in urticaria of the skin. Gaudier (19) reported a case of œdematous urticaria of the mucous membrane of the mouth and fauces resulting from a large meal of snails. Scarification, boric mouth washes, and active purgation gave complete relief in twenty-four hours.

Among diseases of the larynx, certain nervous affections, such as hyperæsthesia and laryngeal spasm, are found attended with disturbed digestion. This is probably brought about by reflex irritation of the pneumogastric nerve. We are all familiar with the rapid relief obtained in cases of spasmodic croup of children by a brisk emetic. Whether there really exists a cough which has been termed stomach cough or not is questionable. Friedrich (20) believes these paroxysms to be hysterical, and states that in his experience they could be brought about by pressure upon the epigastrium. Chronic catarrhal laryngitis has an unquestionably close relation with digestive disturbances. This is found very frequently in those individuals who, while abusing their vocal organs, abuse to a still greater extent their digestive organs, by partaking of most pernicious articles of diet, as well as by inducing gastric catarrh through excessive use of tobacco and alcohol.

It appears from the foregoing that although diseases of the stomach cannot be said to be indisputably caused by affections of the mouth, nose, and throat, or indisputably the result of diseases of these organs, the correlation is so close that our successful management of both depends largely upon our recognition of this interdependence. This still further emphasizes the thought to which men working in special lines have called attention, that the entire human organism is one intricate mechanism, in which local disorders are frequently but manifestations of constitutional affections.

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4. *Journal of Laryngology, Rhinology, and Otology*, April, 1899, page 191.
5. *Transactions of the American Laryngological Association*, 1896, page 115.
6. *Idem*, quoted by Brown, page 113.
7. *Idem*, quoted by French, page 130.
8. *Philadelphia Polyclinic*, March 7, 1896.
9. *Philadelphia Medical Journal*, November 24, 1900.
10. *New York Medical Journal*, August 3, 1901.
11. *Medical Record*, April 25, 1903.
12. *Idem.*
13. Reported in *Journal of Laryngology, Rhinology, and Otology*, December, 1895, page 863.
14. *Diseases of the Tongue.*
15. *Idem*, page 59.
16. *Idem*, page 150.
17. *Journal of Laryngology, Rhinology, and Otology*, November, 1895, page 794.
18. *Medical Record*, April 25, 1903, page 676.
19. Ref., *Journal of Laryngology, Rhinology, and Otology*, October, 1897, page 566.
20. *Laryngology, Rhinology, and Otology in General Medicine*, page 73.

Hospital College of Medicine, Louisville.—Dr. E. Lee Heflin was elected to the chair of genitourinary diseases at the last meeting of the faculty of the Hospital College of Medicine.

REPORT OF A CASE OF TORSION OF AN OVARIAN CYST IN A CHILD THIRTEEN YEARS OLD.*

By JOHN F. ERDMANN, M. D.,
NEW YORK.

I deem it of sufficient importance to cite this case, owing to the age of the patient and to the condition unusual even in adults.

The patient, Fannie W., was referred to me by Dr. Weinberg on February 11th of this year, at which time the following history was obtained:

She was not quite thirteen years of age, was a native of this country, and gave a record of a number of attacks of pain in the abdomen, which were supposed to be distinctly appendicular in their origin. This attack was ushered in on Friday, February 5th, six days before the patient was seen by me, by vomiting and generalized pain in the left side. Her vomiting continued almost daily and her pain at no time was distinctly relative to the appendicular region.

Upon palpation at the time when I saw her, her pain was a little bit more evident in the region of the appendix, although a considerable amount of pain was manifested over the area of the bladder, extending well up to the umbilicus. The entire lower segment of the abdomen was rigid; but this was more marked in the appendicular region. A mass could be felt upon rectal examination.

The temperature had fluctuated between 99° and 100° F. (mouth), while the pulse had varied between 98 and 130. On the day of examination, i. e., February 11th, her temperature (oral) was 100°, and the pulse 120. It might be said that on rectal examination more pain was manifested on the right than on the left side. The general expression was good and the abdomen not markedly distended. A tentative diagnosis of disease of the appendix was made. Upon examination under ether four hours later a mass was felt in the pelvis rather more central and extending to the right.

A Kammerer incision was made and upon incising the peritonæum a gush of bloody serum took place. Exploration revealed a tumor, dark blue in color, which was fluctuating and pliable, and which bore resemblance to a dislocated and strangulated spleen, for which it was then mistaken. Upon further examination and breaking up of adhesions, this mass was proved to arise from the right ovary. Later on it was demonstrated that the pedicle was twisted and that we had to deal with a case of torsion of an ovarian cyst which had become practically gangrenous. The cyst was removed without any trouble. The appendix, which was in a bad state of congestion, was also removed, the pelvis was sponged out with salt solution, the abdomen sewed up without drain, and the patient discharged on the fourteenth day, having made an absolute recovery.

Therapeutical Notes.

Liniment for Rheumatism.—*Nouveaux remedès,* for November 24, 1904, gives this formula:

℞ Ethyl salicylate.............15 grammes (½ ounce);
Chloroform................3 grammes (45 minims);
Menthol...................2 grammes (30 grains);
Compound oil of hyoscyamus (N. F.)....60 grammes (2 ounces).

M. To be applied on flannel and covered with a firm bandage.

We have substituted, in this application, the compound oil of hyoscyamus of the National Formulary, for the *Baume tranquille* of the Codex, a more complex preparation, but possessing much the same properties.

Glaucoma.—Abadie, according to *Médecine orientale*, for September 25, 1904, states that in acute glaucoma characterized by hypertension and inflammation, iridectomy is the remedy and meiotics are useless; in the simple, chronic form, meiotics on the contrary are valuable and iridectomy is contraindicated. In cases where both fail, section of the cervical sympathetic is called for.

Aneurysm of the Abdominal Aorta.—Teissier is cited in *Journal des praticiens,* for September 25, 1904, as advising the following enema as a source of great relief in this condition:

℞ Ammonium bromide........2 grammes (30 grains);
Infusion of valerian.....125 grammes ($4\frac{1}{6}$ ounces);
Sydenham's laudanum.....................10 drops.

M. For an enema, to be administered at bedtime.

Local Hydroelectric Applications in Facial Neuralgia.—According to *Semaine médicale,* for September 28, 1904, Zimmern, of Paris, has obtained excellent results in facial neuralgia by local hydroelectric injections at the site of pain, either in the nostril on the affected side or in the space between the gum and cheek. A container is used, filled with physiological salt solution, connected with a glass cannula by a rubber tube. A silver wire, fastened to the container, has one end connected with a positive pole while it runs through the rubber tube and cannula, the end of which varies in shape according to the site of application. The negative pole is placed on the back of the neck, and the electrified solution is directed into the nostril or elsewhere. A current of 5 to 10 milliampères is used and the cannula is moved about to prevent burning. Zimmern states that he has cured in 3 or 4 treatments cases of neuralgia that had proved obstinate for months.

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* Presented to the Gynæcological Section of the Eastern Medical Society.

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THE MILK PROBLEM.

The problem of securing for large towns a supply of fresh milk, unadulterated, undiluted, and free from contamination with deleterious microorganisms, is one that calls for minute care and unceasing vigilance. Perhaps it has of late been more thoroughly appreciated in Chicago than in almost any other of our American cities, but within the last few days there has appeared a very tangible sign that it is growing to be more duly recognized in New York—namely, the announced disposition of magistrates to inflict imprisonment rather than a fine upon dishonest dealers. There has been no lack of earnest and intelligent study of the subject from all points of view, including the choice of cows and their management, the precautions to be taken in the process of milking, and the handling of the product.

From the veterinarian's standpoint, a most important one, an excellent contribution to current literature has been made by M. Monsarrat, chief veterinarian of the Department of the North in France (*Echo médical du Nord*, September 18th). M. Monsarrat is a decided advocate of milking by hand instead of by a mechanical device, and he thinks it essential that the milk should immediately be either filtered or submitted to the centrifugal process, and then Pasteurized. On the score of practicability and on that of the general acceptability of the product, we may not quite assent to all this, but we are in thorough accord with the French writer in his vigorous condemnation of the use of preservatives, not one of which, he says, is completely free from toxicity, while some of them are very dangerous. Fortunately, on all such points as M. Monsarrat treats of our own Department of Agriculture has long been so assiduous in obtaining and disseminating minute information that there should be no excuse for a milk producer's pleading ignorance or for any weight being attached to his real or affected disbelief.

As regards the examination of market milk, one of the most difficult points to settle has been that of ascertaining positively whether or not the milk has been watered, and the difficulty is due to the fact that milk naturally differs in its percentage of water, differing among individual cows and particularly among the various breeds of cows. But an important addition to our means of detecting the addition of water seems to have been made recently by Mr. Albert E. Leach and Mr. Hermann C. Lythgoe, of the Department of Food and Drug Inspection of the Massachusetts State Board of Health (*Journal of the American Chemical Society*, October). It is founded on the fact that the addition of water to milk alters the refracting power of the milk serum, as determined by Abbé's refractometer or, better, Zeiss's immersion refractometer. Of course the process required in the use of either of these instruments calls for the qualities to be found only in laboratory workers, but of such men we now have an abundance, thanks to our various sanitary organizations.

THE ALLEGED FALLACIOUSNESS OF DEEP PERCUSSION.

In the November number of the *Edinburgh Medical Journal* there appeared a notable article by the venerable Dr. W. T. Gairdner, formerly professor of medicine in the University of Glasgow, entitled On the Methods of Percussion Employed in Edinburgh and Glasgow, with Special Reference to the Importance of Minimizing the Stroke in Most Cases in the Delimitation of Areas. It seems that his attention has been specifically directed, for reasons which he explains, to a difference of teaching that exists in the two cities as to the practical usefulness of Piorry's distinction between superficial and deep percussion. The Edinburgh school, we infer, teaches that the distinction is a useful one, and probably the teaching to that effect is by no means confined to Edinburgh. Briefly, as we understand it, Piorry's point was that superficial (gentle) percussion sufficed for the delimitation of areas of dulness due to conditions existing immediately beneath the thoracic or abdominal wall, while deep (forcible) percussion was required to elicit dulness due to deep seated conditions.

Dr. Gairdner appreciates the beginner's temptation to pound hard in percussing, since by so doing he brings out a note more readily recognized by the ear, but he contends that the increased ease of perceiving the dull sound is purchased at the expense of accuracy of delimitation. He founds this contention on what he states to be a physical law to the effect that the vibration set up by the percussing finger is not propagated solely in the direction of the impact, but in all possible directions and to distances directly proportioned to the force with which the blow is delivered. Consequently, he implies, many structures that are not situated directly beneath the site of percussion are, if the impact is forcible, thrown into vibration, and thus the dull note elicited may by no means necessarily be due to a cause operating at or very near the point of examination.

These views of Dr. Gairdner's are not now expressed for the first time, for almost in their entirety they were set forth by him in an article published in the *Medical Times and Gazette* for December 19, 1885, nineteen years ago. And he does not profess that they were even then either novel or original with himself. It is apparently the persistence of teaching in opposition to them that has now led him to bring them before the profession anew. If we understand him properly, there is ordinarily little if any use in forcible percussion; indeed, there is often detriment to accuracy. If this teaching is accepted, we should imagine that, when precise delimitation is our object, forcible percussion must always`be a thing to avoid, and that in the case of the chest any attempt to delimit deep seated solidification must be futile, though in the case of the abdomen, where we have the advantage of the yielding wall, the finger that is to receive the blow may often be sunk deep, so as to displace the superficial contents, and then, on being gently tapped, reveal the condition of deep lying parts so far as percussion can ever reveal it. Nevertheless, as Dr. Gairdner would probably have admitted, forcible percussion may show the superficiality of dulness elicited by a gentle tap.

VINCE'S OPERATION FOR VARICOCELE.

In the *Journal médical de Bruxelles* for October 6th M. Vince briefly reviews the various operations for scrotal varicocele that are in common use, and then describes his own procedure, which he says he has now been employing for about four years. It consists essentially of the removal of a portion of the cremaster. He incises the skin of the scrotum from the external abdominal ring to the upper end of the testicle. He then cuts through the fibrous layer to the same extent, and separates it from the cremaster. Then he makes a longitudinal incision through the cremaster and isolates the spermatic cord, which is held aside by means of a compress. Two long clamps are applied transversely to the cremaster, the distance between them being about two inches. All that portion of the muscle that lies between the clamps is removed, and its two cut extremities are brought together with sutures. The spermatic cord is then placed on the surface of the cremaster, and the longitudinal section is closed above. Finally the wounds of the fibrous layer and of the skin are closed. In cases of very voluminous varicocele a portion of the mass of veins may be resected in conjunction with this procedure.

By this operation, says M. Vince, the testicle is lifted to the extent of about two inches, and the scrotum, however distended it may have been, retracts upon itself in the course of a short time. The cremaster, he remarks, shows various degrees of development in different individuals, but he has never found it insufficiently developed to admit of the execution of this operation. During the four years that have elapsed since he devised it he has employed it in all his cases of varicocele. He adds that he has recently examined two of the patients who were among the earliest to be subjected to it, and there has been no relapse or any pain or other inconvenience.

M. Vince does not think any operation necessary in all cases, for in many of them the wearing of a suspensory will answer every purpose; but persistent pain, grave mental derangement, the impotence that is often but the consequence of the psychical state, atrophy of the testicle, and excessive size of the veins are conditions that call for surgical intervention. A successful operation, he says, will sometimes cause the testicle to regain its original size after it has begun to undergo atrophy.

FUNCTIONAL NERVOUS DISEASES FROM A MEDICOLEGAL STANDPOINT.

A problem of high importance presents itself to the general practitioner when he is called upon to pass an opinion upon some questions relative to functional disturbances of the nervous system. A few hints from those who are in a position to observe these facts frequently may be of some value in cases in which physicians are requested to enlighten the jury as well as the judge and attorneys. In cases of railway or other injuries caused by neglect of those who have in charge the management of the transportation cars, it is no more than just that the injured person should get remuneration for the disability. If, as often happens, the disability is not real and only feigned in all its manifestations, the individual should be condemned for his or her unjust claim. In both cases the physician is indispensable to the law, and his truthful opinion should have the utmost weight in the minds of the jury and judge.

There is a general belief with the laity and with some physicians that the nervous manifestations in cases of this nature are so vague and so ill defined that they cannot and should not be taken into consideration, and that any physician who will express an opinion based upon a few symptoms is an accomplice of the plaintiff who is endeavoring to make a false claim. While this is correct in some cases, there are, on the other hand, physicians who unintentionally and in good faith will make an off hand diagnosis of hysteria or neurasthenia. The correctness of this statement we find in the appalling and ever so discouraging statements made by the physicians of the opposed parties, which prove to be diametrically opposite diagnoses. The evil growing out of the inability of the physician to recognize a traumatic neurosis lies of course in the lack of preparedness or of the desire to broaden his knowledge. Nobody should ever forget that no unusual symptom, however mild, is to be neglected or overlooked, because it is always the expression of a disturbed function; we are all familiar with early stages of organic or even functional diseases in which the symptoms are very few and elicited with difficulty, and still, when recognized, can be arrested in their development or perhaps removed. When a knee jerk is exaggerated, when a tremor is present, when the pharynx is totally or partially anæsthetic, when the conjunctiva is analgetic, when a muscle is atrophied—a condition which is also demonstrable by a distinctly diminished electrical response—when a pupil does not react to light, when the visual fields are distinctly contracted, can all these symptoms be considered normal, or, otherwise, is any individual capable of feigning them? They are all manifestations of an undoubtedly disturbed function of the nervous system, be it hysteria or neurasthenia; they are all indicative of damage done to the nervous system—for this simple reason, that normally they do not exist. The fact that pharyngeal anæsthesia, a contracted visual field, etc., do not resemble gross symptoms, such as a fracture of the skull, or a lacerated skin, etc., is not a sufficient, at least not a scientific, reason to reject them as having no pathological meaning. It is true, we have no, so to speak, pathology of the neuroses. Nevertheless we must realize their existence, if only for this common sense reason, that they always present the same symptomatology. Examples of diseases clinically well known but without a distinct pathology are not wanting. Take, for example, the history of some insanities; no pathology as yet, and, still, the remarkable identity in the clinical manifestations of each individual case. We therefore see the importance and the practical necessity of becoming familiar with those great neuroses which are so frequently brought on by a physical or mental shock.

A word of warning also to those who may misinterpret symptoms which occur sometimes in normal individuals, such, for example, as asymmetry of the face (which in one case was alleged to be a facial palsy caused by the accident), or somewhat diminished reflexes (which may occur in certain states of normal individuals). Here again we emphasize the great necessity of familiarizing one's self with the nature of nervous diseases, besides the enormous practical benefit to the one to whom the law appeals for enlightenment. There are two categories of symptoms in functional nervous diseases, subjective and objective. The first are usually ignored, because it is difficult to ascertain whether a pain, a numbness, a heaviness, a drowsiness, etc., are present in any given case; the plaintiff's word is not material evidence before the law. It is mainly the objective evidences that we are requested to bring forward and explain. It is our solemn duty, in the name of justice to either litigating side, to detect or at least not ignore, any symptom, however mild it may be; it is our duty to make a thorough study of each individual case and give an impartial account of all the symptoms found, irrespective of our personal interest.

The question of prognosis, so often asked in court, can be answered only if an absolutely impartial view is taken of the case; it can be answered almost in every case if only each symptom is weighed in relation to others and none is neglected. As to the question of an intentional exaggeration or lessening of the meaning of symptoms—this is unfortunately an occasional occurrence, but it is a matter of principle and therefore cannot be discussed at length in this article. We can only say that, if the opposing parties, who are supposed to be thoroughly familiar with the subject of neuroses, would give their medical testimony in conformity with the true interpretation of the symptoms, our reputation in medicolegal matters would not suffer the constant reproach: "Doctors always disagree."

ALFRED GORDON.

INFLUENZA AND APPENDICULAR INFLAMMATION.

Our impression is that influenza has been regarded as leading to the occurrence of disease of the vermiform appendix by others as well as Korach (*Deutsche Medicinal-Zeitung*, 1904, No. 49; *Berliner klinische Wochenschrift*, October 3rd). That author seems to base the opinion on the coincidence of an increased frequency of appendicular disease with the growing prevalence of influenza in recent years.

FORMALDEHYDE AND THE FAVUS MICROORGANISM.

A conspicuous example of the futility of reasoning that a drug will cure a certain disease because experimentally it proves destructive of the germ of that disease is set forth by Bogrow and Scharkewitsch (*Dermatologische Zeitschrift*, May; *Berliner klinische Wochenschrift*, October 3rd). They have found that a weak solution of formaldehyde kills the fungus of favus on hairs extracted, but does not gain access to the microorganism on hairs remaining in their follicles, and is therefore of no avail in treating the disease.

PARAFFIN INJECTIONS FOR VARICOSE VEINS.

A fresh illustration of the tendency of therapeutic novelties to find their way speedily from one branch of practice to another is to be seen in E. von Bassewitz's suggestion for the cure of varicose veins by so injecting paraffin around the trunk of the affected vein as to compress the vessel to the extent of obliterating it (*Semaine médicale*, October 12th). Digital pressure is made on the mass while it is solidifying.

THE ROADBED IN THE SUBWAY.

The ripple of popular solicitude concerning the air of the New York underground railway having subsided, the advisory board of the city Health Department has under consideration the matter of the probable ulterior influence of the rocky roadbed on the public health. It is very properly pointed out that such a rough surface cannot be kept clean, and it is hardly to be doubted that such a smooth bed as asphalt would form will ultimately have to be laid.

THE X RAYS IN THE TREATMENT OF FIBROSARCOMA.

Amid the somewhat contradictory and, on the whole, rather discouraging reports that have thus far been published of the use of the Röntgen rays in malignant growths, it is very satisfactory to find in the current number of the *Archives of Electrology and Radiology* an account of a case of large pelvic fibrosarcoma which, after having been somewhat reduced in size by the Coley treatment, took on a recrudescence of growth, but was finally caused to disappear entirely by the use of the rays in the hands of Dr. Clarence E. Skinner, of New Haven.

News Items.

Society Meetings for the Coming Week:

MONDAY, *December 19th.*—New York Academy of Medicine (Section in Ophthalmology); New York County Medical Association; Hartford, Conn., Medical Society; Chicago Medical Society.

TUESDAY, *December 20th.*—New York Academy of Medicine (Section in General Medicine); Buffalo Academy of Medicine (Section in Pathology); Ogdensburgh, N. Y., Medical Association; Syracuse, N. Y., Academy of Medicine; Medical Society of the County of Kings, N. Y.; Baltimore Academy of Medicine.

WEDNESDAY, *December 21st.*—Woman's Medical Association (New York Academy of Medicine); New York Society of Dermatology and Genitourinary Surgery (private); New York Academy of Medicine (Section in Genitourinary Diseases); Medicolegal Society, New York; Northwestern Medical and Surgical Society of New York (private); New Jersey Academy of Medicine (Newark).

THURSDAY, *December 22nd.*—New York Academy of Medicine (Section in Obstetrics and Gynæcology); New York Celtic Medical Society; New York Orthopædic Society; Brooklyn Pathological Society; Brooklyn Society for Neurology; Roxbury, Mass., Society for Medical Improvement (private); Pathological Society of Philadelphia; Church Hill Medical Society of Richmond, Va.

FRIDAY, *December 23rd.*—New York Clinical Society (private); New York Society of German Physicians; Yorkville Medical Association, New York (private); Philadelphia Clinical Society; Philadelphia Laryngological Society.

SATURDAY, *December 24th.*—New York Medical and Surgical Society (private); Harvard Medical Society, New York (private).

NEW YORK.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending December 10, 1904:

	December 3.		December 10.	
	Cases.	Deaths.	Cases.	Deaths.
Measles	83	6	138	8
Diphtheria and croup	378	30	368	31
Scarlet fever	200	10	208	14
Smallpox	..	..	..	..
Chickenpox	155	..	112	..
Tuberculosis	326	165	345	160
Typhoid fever	85	17	87	19
Cerebrospinal meningitis	..	13	..	13
	1,227	241	1,258	245

Changes of Address.—Dr. George E. Maurer, to 789 Lexington Avenue, New York; Dr. Charles E. Winter, to 804 De Kalb Avenue, Brooklyn, N. Y.

Dr. John Crego Lester desires us to state that while he has opened an office at 616 Madison Avenue, he still retains his office and residence in Brooklyn.

Bellevue Hospital.—A special diet kitchen has been established in this institution, with Miss Harriette Gorton, a graduate nurse of the Drexel Institute, Philadelphia, as superintendent.

Hospitals Crowded.—There are over 850 patients in Bellevue Hospital and the other city institutions are similarly crowded. Four new pavilions are to be constructed immediately between the Bellevue main building and the river.

The Managers of the Lincoln Hospital, East One Hundred and Forty-first Street and Southern Boulevard, New York, announce that Dr. Louis Faugères Bishop will give a series of clinical lectures on General Medical Diagnosis in the wards of the hospital on Wednesday afternoons, commencing December 14, 1904, at three o'clock. The course will be free to the medical profession. M. W. Booth, president. Courses in laboratory diagnosis are being arranged.

Incorporation of Samaritan Hospital.—The articles of incorporation of this Brooklyn institution have been filed with the secretary of State. The incorporators are: Dr. Eugene W. Skelton, Joseph G. Barney, Louis F. Bird, Frank A. Brown, Charles L. Young, Lewis B. Mann, Dr. Luther T. Jackman, George S. Francis, George W. Baylis, Orrin R. Judd, the Reverend H. Allen Tupper, Jr., D. D.; Dr. Adolph F. Erdmann, Dr. Arthur H. Longstreet, Francis J. Pender, Alfred G. Taylor, Mrs. Agnes E. Boone, Mrs. Mary E. Wardell, and Miss Eva E. Capron, of Brooklyn.

Society of Medical Jurisprudence.—At the one hundred and forty-ninth annual meeting of this society in the Academy of Medicine on December 12th, the following officers were elected: President, Carl Beck, M. D.; vice-president, Mortimer C. Addoms; treasurer, D. McLean Shaw; recording secretary, Charles P. Blaney; corresponding secretary, Alfred E. Ommen; trustees, Edward F. Brush, M. D.; C. A. Von Ramdohr, M. D.; E. J. Palmer, M. D.; W. H. J. Steberg, M. D.; Theodore Sutro, John C West, Charles M. Demond, and George C. Andrews.

The Eastern Medical Society.—At the annual election of the Eastern Medical Society, held on December 9th, the following officers were chosen for 1905: President, Ephraim K. Browd, M. D.; first vice-president, A. Hymanson, M. D.; second vice-president, Charles Goodman, M. D.; treasurer, A. Ronginsky, M. D.; recording secretary, M. M. Stark, M. D.; corresponding secretary, Emil Altman, M. D.; chairman, committee on ethics, A. A. Himowich, M. D.; chairman, committee on library, S. S. Jacobs, M. D.; chairman, committee on membership, John A. Price, M. D.; chairman, house committee, I. Grushlaw, M. D.; trustees, A. E. Isaacs, M. D., and David Robinsohn, M. D

Academy of Medicine.—The section in ophthalmology will meet Monday, December 19th, at 8.15 p. m. Order: Presentation of Cases: (*a*) Cases Illustrating Dr. Briganti's Paper on the Operative Treatment of Trichiasis, by P. Briganti, M. D.; (*b*) Location of a Foreign Body in the Eye with the X Rays, and Subsequent Removal, (*c*) Pupillary Membrane of Unusual Size, by W. B. Marple, M. D.; (*d*) Resection of Levator for Ptosis (Hugo Wolff's Operation), by Dr. H. W. Wootton and Dr. J. J. Thompson; (*e*) Chorioiditis Resembling Rupture of the Chorioid, by A. L. Macken, M. D.; (*f*) Paralysis of Both Externi, by C. R. Hare, M. D. Presentation of Instruments: Instrument for Recording the Ocular Movements, by E. B. Coburn, M. D. Paper: The Transplantation Method for the Treatment of Trichiasis, and New Instruments for the Operation, by P. Briganti, M. D. Alexander Duane, M. D., chairman. H. W. Wootton, M. D., secretary, 35 West Forty-fifth Street. The section in medicine will meet Tuesday, December 20th, at 8.15 p. m. Order: Presentation of Cases. Papers with discussions: (*a*) The Employment of the Blind in Massage, by Nathaniel Bowditch Potter, M. D.; (*b*)The Continuous Current in Relation to Inflammatory Exudates, by Margaret A. Cleaves, M. D.; (*c*) A Case of Chylous Ascites with a Study of the Fluid, by J. Finley Bell, M. D., and S. P. Beebe, Ph. D. Charles H. Lewis, M. D., chairman. E. E. Smith, M. D., secretary, 26 East Twenty-ninth Street. The section in obstetrics and gynæcology will meet Thursday, December 22nd, at 8.15 p. m. Order: Presentation of Instruments. Presentation of Specimens. Paper: The After Treatment of Abdominal Section, by Daniel H. Craig, M. D., of Boston. A. Palmer Dudley, M. D., chairman. Charles F. Adams, M. D., secretary, 104 West Seventy-third Street. The section in laryngology and rhinology will meet Wednesday, December 28th, at 8.15 p. m. Order: Presentation of Cases. 1. A Case of Malignant Tumor of the Tonsil Treated with Radium, by W. Freudenthal, M. D.; 2. A Case of Epithelioma of the Uvula and Soft Palate. Recurrence Twice After Removal, by Harmon Smith, M. D.; 3. A Case of Extensive Syphilitic Necrosis of the Superior Maxilla, Ethmoid, and Sphenoid Bones; Operation, by Lee M. Hurd, M. D. Specimens and New Instruments: 1. Adenoid Forceps, by George B. McAuliffe, M. D.; 2. A Revolving Disc Knife for Submucous Sæptal Operations, by Harmon Smith, M. D. Papers: The Results of Partial Inferior Turbinectomies, by George B. McAuliffe, M. D.; The Employment of Mucin in Atrophic Conditions of the Nose and Throat, by James E. Newcomb, M. D. General discussion. Executive session. Francis J. Quinlan, M. D., chairman. Harmon Smith, M. D., secretary, 44 West Forty-ninth Street.

PHILADELPHIA.

Changes of Address.—Dr. Joseph M. Asher, to 1335 North Broad Street; Dr. Clifford Bailey Farr, to 326 South Seventeenth Street; Dr. James P. Hutchinson, to 1910 South Rittenhouse Square.

Charitable Bequests.—By the will of Charles Scott, who died recently at Fifty-ninth Street and City Avenue, the Methodist Episcopal Hospital receives $5,000 for a free bed. The Methodist Home for the Aged receives $1,000.

Personal.—Dr. De Forest Willard entertained the members of the John Ashhurst Surgical Society of the University of Pennsylvania at his residence, 1818 Chestnut Street, on Friday evening, December 2nd.

The Northern Medical Association.—At the meeting of the Northern Medical Association, to be held Friday evening, December 23rd, Dr. Horatio C. Wood, Jr., will speak of the Value and the Methods of Studying Blood Pressure in the Human Being.

College of Physicians.—Dr. J. W. Holland read a memoir of the late Dr. Roberts Bartholow at the meeting of the College of Physicians, held December 17th. Dr. Herman B. Albyn read a paper entitled The Diagnosis of Tuberculous Cavities in the Lung.

The Polyclinic Hospital.—During the month of November the following cases were treated in the Polyclinic Hospital: Patients admitted to house, 125; patients discharged, 126; new patients treated in dispensary, 1,618; total visits to dispensary, 7,697; accident ward, 561.

The Pennsylvania Dairy Union, on December 1st, adopted resolutions opposing any alteration of the Grout Bill by Congress. The president of the union was authorized to appoint a committee of five to act with similar committees from other organizations in an effort to perpetuate the Grout Bill.

The Weather for November.—A summary of the weather for November shows that the mean temperature was 1.7 degrees below the 34 year normal. The maximum temperature was 64° and the minimum 25°. The total rainfall was 2.55 inches. There was only one storm of any magnitude. There was 56 per cent. of sunshine.

Nurses for the Public Schools.—Councils have been asked by the Public Education Association to appropriate $1,800 to the Department of Health for the appointment of two trained nurses to visit the public schools. It is proposed that the nurses help the assistant medical inspectors in their school work. This step is the result of the work done by a nurse furnished by the Visiting Nurse Society for attendance in the schools of the fourth ward.

Accident to Dr. John B. Chapin.—On December 3rd, Dr. John B. Chapin, superintendent of the Insane Department of the Pennsylvania Hospital, while entering the hospital through the basement, in order to avoid the icy walks outside the house, stepped accidentally into a hole that had been made in order to repair a portion of the heating apparatus. Dr. Chapin fell about six or seven feet, sustaining a Colles's fracture of the radius. The condition is not serious, and Dr. Chapin is able to attend to his executive duties, although confined to his rooms.

Serious Accident at Basket Ball Game.—During a basket ball game, played in the armory of the State Fencibles at Broad and Race Streets, on the evening of November 29th, two of the players came to blows. Some one in the audience shouted " fight " and those in the balcony crowded forward in order to see the cause of the disturbance. The extra weight thus suddenly brought to the front of the balcony caused about forty feet of it to give way, throwing the spectators to the floor below. More than thirty people were injured, some seriously. So far as can be learned no inspection of the building in which the accident occurred had ever been made by the bureau of building inspection.

Society of Normal and Pathological Physiology.—The following programme was offered at the meeting of the Society of Normal and Pathological Physiology at the University of Pennsylvania on Monday, December 5th: Presentation of a Patient from Whom Almost the Entire Cerebellar Hemisphere Has Been Removed, by Dr. Charles H. Frazier; The Influence of Alcohol Upon the Circulation, by Dr. D. M. Hoyt; The Mechanics of Muscular Contraction, by Dr. Edward B. Meigs.

Philadelphia County Medical Society Special Lectures.—On the evening of December 21st, at 8.30 o'clock, the Philadelphia County Medical Society will hold the second of its evenings of special lectures. Dr. William G. Spiller will speak of the Diagnosis of Tumors Implicating the Intracranial Portion of the Visual System, and Dr. Allen J. Smith will speak of Terminal Atony of the Large Intestine.

The Section in General Medicine, College of Physicians.—The following is the programme of the meeting of the section in General Medicine of the College of Physicians, held December 12th: Dr. J. M. Anders, Pneumococcus Cholecystitidis; Dr. A. O. J. Kelly, Some Remarks Upon the Diagnosis of Heart Disease; Dr. Joseph Sailer and Dr. John M. Spiers (by invitation), The Gastric Contents in Lead Poisoning.

The Philadelphia Pathological Society.—At the meeting of the Philadelphia Pathological Society on December 8th, Dr. Victor C. Vaughan made an address on the Relation of Food Preservatives to the Public Health. The discussion was opened by Professor C. B. Cochran, of West Chester, Pa., and Professor Charles Harrington, of Boston. After the meeting a reception was tendered the speakers by the society at the University Club.

Dinner to Dr. Chapin.—On the evening of December 1st, about 100 members of the medical profession with a few laymen assembled at the Bellevue-Stratford Hotel at a complimentary dinner to Dr. John B. Chapin, in celebration of the completion of the fiftieth year of his work among the insane. Dr. Henry M. Hurd, in the name of those of his friends who contributed, presented Dr. Chapin a portrait of himself, which was painted by Miss Carrol H. Beck. Toasts were responded to by Dr. Charles W. Burr, Dr. F. X. Dercum, Dr. James C. Wilson, Mr. James T. Shinn, the Reverend Dr. Stephen W. Dana, and Mr. James M. Beck. Numerous telegrams and letters from friends in America and in Europe were read.

Scientific Society Meetings for the Week Ending December 24th.—Monday, December 19th, Ornithological Section, Academy of Natural Sciences; Medical Jurisprudence Society; Society of Normal and Pathological Physiology, University of Pennsylvania. Tuesday, December 20th, Section in Ophthalmology, College of Physicians; Dermatological Society; Academy of Natural Sciences. Wednesday, December 21st, Section in Otology and Laryngology, College of Physicians; Special Lectures, Philadelphia County Medical Society. Thursday, December 22nd, Pathological Society; Entomological Section, Academy of Natural Sciences. Friday, December 23rd, Northern Medical Association.

The College of Physicians.—At the stated monthly meeting of the College of Physicians, held December 3, 1904, Dr. J. W. Holland read a carefully prepared and elegantly worded memoir of the late Dr. Roberts Bartholow. Dr. Herman B. Allyn read a communication on The Diagnosis of Tuberculous Cavities in the Lung. Dr. E. Hollingsworth Siter was elected a member of the Hall Committee, vice Dr. W. M. Barton Hopkins, deceased. The honorary librarian announced the addition of seventy-three volumes to the library during November. Dr. John B. Roberts presented a collection of six specimens illustrating surgical pathological conditions to the Mütter museum, and Dr. J. V. Ingham presented a collection of Japanese instruments to the museum of the college.

The Health of the City.—The following infectious diseases have been reported for the week ending December 3rd:

	Cases.	Deaths.
Malarial fever	2	0
Typhoid fever	65	8
Scarlet fever	55	0
Smallpox	1	0
Chickenpox	103	0
Diphtheria	125	10
Measles	20	1
Whooping cough	11	1
Tuberculosis of the lungs	72	51
Pneumonia	76	37
Erysipelas	14	5
Puerperal fever	1	3

The total death rate for the week was 426, in an estimated population of 1,408,154, corresponding to an annual death rate of 15.73 per 1,000 of population. The total infant mortality was 82; 71 under one year and 11 between one and two years. There were 33 still births; 19 males and 14 females. The following deaths from other infectious diseases have been reported: tuberculosis other than tuberculosis of the lungs, 8; diarrhœa and enteritis, under two years, 12. No unusual meteorological phenomena were recorded by the weather bureau.

Work of the Department of Health and Charities for November.—During the month of November the division of medical inspection of the Department of Health and Charities records the following summary of its work: Number of inspections, excluding schools, 10,988; number of fumigations ordered, 604; number of cases for special diagnosis, 60; total number of visits to schools, 4,601; number of children excluded from school, 1,083; number of cultures taken, 91; injections of antitoxine, 132; number of vaccinations, 1,585. In the division of milk inspection 130 chemical and 1,189 microscopical examinations were made. In the bacteriological laboratory 831 examinations for diphtheria were made, 340 examinations for the serum diagnosis of typhoid fever; 1,161 examinations of milk; 114 examinations of sputum, and 1,444 bottles of antitoxine were supplied. The following is the census of the Municipal Hospital for November:

	Remaining last report.	Received.	Discharged.	Died.	Remaining.
Diphtheria	49	76	58	14	53
Scarlet fever	103	48	37	1	113
Smallpox	2	8	1	2	7
Other diseases	0	5	3	0	2

GENERAL

City Hospital, Atlantic City.—An orchestra is said to have been established in this institution for the benefit of patients, an idea suggested by recent discussion of the therapeutical value of music.

McCormick Memorial Institute, Chicago.—The McCormick Memorial Institute for Infectious Diseases, the construction of which is in abeyance for a time, owing to objections of the residents between Fifty-third and Firty-fourth Streets, on Calumet Avenue, has received a donation of $100,000 from Otto Young. This fact has caused some misleading statements.

Fourth Pan-American Medical Congress.—A card from Dr. Hughes: Having been assigned this agreeable duty by the International Executive Commission of the Pan-American Medical Congress, I take pleasure in inviting all members of the profession interested in neurological and psychological medicine to attend the neurological section of this congress on January 2, 1905, and the remainder of that week at Panama, and to present a paper or other communication in the line of the section's work. C. H. Hughes, secretary of the section in nervous and mental diseases.

Statement of Mortality in Chicago, Ill., for the Week Ending December 10, 1904, compared with the preceding week and with the corresponding week of 1903. Death rates computed on United States Census Bureau's estimated midyear populations of 1,932,315 for 1904 and of 1,873,880 for 1903:

	Dec. 10, 1904.	Dec. 3, 1904.	Dec. 12, 1903.
Total deaths, all causes	512	450	489
Annual death rate per 1,000	13.84	12.44	13.58
By sexes—			
Males	304	251	267
Females	208	199	222
By ages—			
Under 1 year	70	64	89
Between 1 and 5 years	51	34	34
Over 60 years	123	98	104
Important causes of death—			
Acute intestinal diseases	20	21	20
Apoplexy	20	11	15
Bright's disease	41	35	36
Bronchitis	14	13	22
Consumption	65	54	48
Cancer	24	30	11
Convulsions	11	7	10
Diphtheria	15	13	11
Heart diseases	50	49	39
Influenza	1	1	3
Measles	2	3	3
Nervous diseases	20	17	20
Pneumonia	85	64	96
Scarlet fever	2	3	4
Suicide	12	8	11
Smallpox	1	2	0
Typhoid fever	7	3	7
Violence (other than suicide)	38	33	25
Whooping cough	3	3	1
All other causes	82	77	106

An excess of 62 deaths over the number of the previous week is noted in the mortality statement of the week. Of this excess 35 were of deaths that occurred in November and are only now reported in the clearing up of the coroner's office and of the county institutions for the newly elected officers. With these deducted the total deaths of the week were 477 and the annual rate 12.89, instead of 13.84 per thousand, as given in the statement. The discrepancy is of no special moment, since the addition of these 35 deaths to the November total would not appreciably affect the published November rate, and it will make no change at all in the rate for 1904, whether they be included in the November or the December deaths. An increasing proportion of certificates of death from pneumonia include measles as a complication. Once more the department urges mothers to protect their offspring against exposure to any of the contagious diseases and, at this season, especially measles.

Examinations for Panama Canal Appointments, January 18, 1905.—The United States Civil Service Commission announces an examination on January 18, 1905, to secure eligibles to whom to make certification to fill vacancies in the following named positions under the Isthmian Canal Commission on the Isthmus of Panama: Surgeon, physician, pharmacist, hospital interne, trained nurse.

The scope and character of these examinations are as indicated below. Each applicant for the Isthmian Canal Service will be required to submit to the examiner, on the day he is examined, a recent photograph, not more than three years old, of himself, which will be filed with his examination papers, as a means of identification in case he receives an appointment. An unmounted photograph is preferred. The date, place, and kind of examination, the examination number, the competitor's name, and the year in which the photograph was taken should be indicated on the photograph.

SURGEON.

Age limit, 25 to 50 years; salary, $250 per month.

The examination will consist of the subjects given below, with the relative weights indicated:

Subjects.	Weights.
Anatomy	5
Surgical bacteriology	5
Surgical pathology and diagnosis	15
Surgical practice	40
Surgical gynæcology	5
Practical experience. (This element will be rated upon the statements made in the application and accompanying vouchers. Special attention will be given to the quality of the applicant's experience, and applicants who have had extensive work in large hospitals will receive special credit.)	30
Total	100

It is the desire of the Isthmian Canal Commission to appoint in this position only surgeons of thorough training and wide professional experience.

PHYSICIAN.

Age limit, 25 to 50 years; salaries, $150, $200, and $250 per month.

The examination will consist of the subjects given below, with the relative weights indicated:

Subjects.	Weights.
Letter writing	5
Anatomy	5
Therapeutics	5
Physical diagnosis (including questions relating to tropical diseases)	25
General pathology and practice (including questions relating to tropical diseases)	25
Bacteriology and hygiene	5
Obstetrics and gynæcology	5
Practical experience	25
Total	100

The element of practical experience will be rated upon the statements made in the application and accompanying vouchers. Special attention will be given to the quality of the applicant's experience, and applicants who have had experience in hospitals, particularly in the treatment of tropical diseases, will receive special credit. Only those who have had extensive hospital experience and are familiar with the treatment of tropical diseases, will be selected for appointment to the highest salaried positions. Promotions may be made in the discretion of the Isthmian Canal Commission from the lower to the higher positions in this grade.

PHARMACIST.

Age limit, 20 to 40 years; salaries, $900, $1,000, and $1,200 per annum, with board and quarters.

The examination will consist of the subjects given below, with the relative weights indicated:

Subjects.	Weights.
Letter writing	5
Chemistry	15
Pharmacy	40
Materia medica	15
Practical experience	25
Total	100

Graduates of pharmacy only will be eligible to this examination. Experience will be rated upon the time spent in the general work connected with pharmacy, the preparation and compounding of prescriptions, and the making of official preparations.

HOSPITAL INTERNE. (MALE.)

Age limit, 20 to 30 years; salary, $50 per month, with board and quarters, provided that if appointees are retained in the position of interne after one year they will be paid $125 per month.

Only graduates of reputable medical schools having a three years' course will be admitted to this examination. It is expected that within the next few months twelve or more vacancies in this position will be filled as a result of competitive examination.

The examination will consist of the subjects given below, with the relative weights indicated:

Subjects.	Weights.
Letter writing (the subject matter on a topic relative to the practice of medicine)	5
Anatomy and physiology (general questions on anatomy and physiology, and histological or minute anatomy)	15
Chemistry, materia medica, and therapeutics (elementary questions in inorganic and organic chemistry; the physiological action and therapeutical uses and doses of drugs)	10
Surgery and surgical pathology (general surgery, surgical diagnosis; the pathology of surgical diseases)	20
General pathology and practice (the symptomatology, ætiology, diagnosis, pathology, and treatment of disease)	25
Bacteriology and hygiene (bacteriological methods, especially those relating to diagnosis; the application of hygienic methods; and prophylaxis and treatment)	10
Obstetrics and gynæcology (the general practice of obstetrics; diseases of women, their pathology, diagnosis, symptoms, and treatment, medical and surgical)	15
Total	100

TRAINED NURSE. (MALE OR FEMALE.)

Age limit, 20 to 35 years; salary, $50 per month, with board and quarters.

Only graduates of schools for trained nurses having at least a two years' course will be admitted to this examination. Applicants having hospital experience in connection with the treatment of tropical diseases will be given special credit for such experience and will be preferred for appointment.

The examination will consist of the subjects given below, with the relative weights indicated:

Subjects.	Weights.
Anatomy and physiology	5
Hygiene of the sick room	20
General nursing	20
Surgical nursing	20
Obstetrical nursing	20
Experience in nursing	15
Total	100

Male applicants will not be required to take the subject of obstetrical nursing. The scope of the subjects in this examination is that covered by the customary course of study in recognized training schools for nurses or in the standard textbooks prepared for the instruction of students in nursing.

More than one day may be required for each of these examinations, except that for the position of trained nurse.

These examinations are open to all citizens of the United States who comply with the requirements.

Applicants should at once apply to the United States Civil Service Commission, Washington D. C., for application forms 1312 and 1417. The medical certificate in form 1312 must be filled in by a reputable practising physician. No person will be appointed for service on the Isthmus who is not physically sound and in good health. No application will be accepted unless properly executed and filed with the commission at Washington. The exact title of the examination desired should be used in the application.

As examination papers are shipped direct from the commission to the places of examination, it is necessary that applications be received in ample time to arrange for the examination desired at the place indicated by the applicant. The commission will, therefore, arrange to examine any applicant whose application is received in time to permit the shipment of the necessary papers.

For the further information of applicants and others, the following statement is published relative to conditions of employment on the Isthmus of Panama under civil service rules by the Isthmian Canal Commission:

Length of Service.—The construction of the Panama Canal may extend throughout a time period of eight or more years, according to the details of the project yet to be adopted. (This time estimate is from the report of the last Isthmian Canal Commission).

Opportunities.—The civil service of the Isthmian Canal Commission offers excellent opportunities to qualified persons, both in the matter of salaries and promotion. Under the operation of the civil service law it is contemplated that promotions will be made upon the basis of merit from the lower to the higher positions.

Medical Attendance.—Medical attendance, medicines, and care at hospitals when sick, are furnished to the employees of the Isthmian Canal Commission without cost. Well equipped hospitals will be maintained at Ancon, adjacent to Panama, and at Colon.

In meritorious cases sick leave on pay may be allowed, in addition to the regular leave of absence, not to exceed thirty days for employees who are from the United States, or fifteen days for employees who are residents of the Isthmus.

Accommodations for Employees.—The Isthmian Canal Commission furnishes quarters to its American employees, or at its option in lieu thereof commutation, which has tentatively been fixed at 8 per cent. of the salary. The commission proposes to maintain a civil commissary department on the Isthmus, which is soon to be established and the advantages of which are to be made available to the salaried employees of the commission.

Transportation to the Isthmus.—The Isthmian Canal Commission furnishes its employees free transportation to the Isthmus from either New York, New Orleans, or San Francisco, and, also, free return transportation upon completion of satisfactory service.

Leave of Absence.—The employees of the Isthmian Canal Commission are allowed six weeks' leave of absence annually on full pay. This leave of absence is not granted until after eight months of satisfactory service. In visiting the United States on leave, employees and members of their immediate families are granted special rates to the above named ports. (The prevailing special rates are $25 between New York or New Orleans and Colon, and $70 between San Francisco and Panama. The special rates also apply when members of the family of an employee accompany him to the Isthmus.

Salaries or Wages.—All salaries or wages paid by the Isthmian Canal Commission to employees from the United States are in gold or its equivalent in United States currency.

All inquiries concerning examinations for competitive positions under the Isthmian Canal Commission should be addressed to the United States Civil Service Commission, Washington, D. C.

Further communication relative to service, situation, climate, and conditions on the Isthmus should be addressed to the Isthmian Canal Commission, Washington, D. C., by which the foregoing details have been furnished.

In all cases where no examination is pending for the position which the applicants seeks, his name will be placed upon a mailing list and he will be promptly informed as soon as an examination of the kind desired is announced.

A Boston Physician Injured.—A car struck the carriage of Dr. Washburn, of 377 Marlboro Street, as he was turning from Boylston into Hereford Street, on November 27th. The carriage was overturned. Dr. Washburn received a few bruises, and his driver was cut slightly by the broken glass, but neither was seriously injured.

Opening of the Session at Vermont Medical School.—On November 27th the new medical department of the University of Vermont was formally opened at Burlington, Vt., by Dr. John McCrae, of Montreal, who delivered the address of the day. Remarks were also made by President Buckham, of the university, and Dr. Tinkham, dean of the faculty.

Virginia State Medical Board.—Governor Montague has appointed the following members of the State Board of Medical Examiners: Dr. Rawley W. Martin, of Lynchburg; Dr. Lewis E. Harvey, of Danville; Dr. J. H. Neff, of Harrisonburg; Dr. V. S. Culpeper, of Portsmouth; Dr. W. W. Chaffin, of Pulaski City; Dr. Paulus E. Irving, and Dr. Landon B. Edwards, of Richmond.

Emergency Hospital, Washington, D. C.—Dr. Herbert E. Martyn has been appointed to the staff of resident surgeons, to take the place made vacant at the ending of the six months' term of Dr. Lawrence M. Hynson. The change takes effect to-morrow. Dr. Hynson has made an excellent record at the hospital, and, after a brief rest, he will take up similar work in another hospital. Both Dr. Hynson and Dr. Martyn are graduates of the George Washington University.

Accidents to Pittsburgh Physicians.—Dr. C. B. Schildecker, a young East End physician, was thrown from a horse at Fernandina, Fla., on Thanksgiving Day, and seriously injured. His principal injury seems to be to the back, although it is feared he may be injured internally. Dr. J. Harvey Reynolds, one of the best known physicians of Bellevue, while driving in his buggy on Lincoln Avenue near Florence Avenue, Bellevue, on November 24th, was struck by a car. Dr. Reynolds was seriously cut about the head, one of his ribs was broken and he is suffering greatly from shock. Dr. Reynolds is 68 years old and has resided in Bellevue for many years.

Baltimore's New Hospital.—The Municipal Hospital Commission of Baltimore announced on December 1st that the proposed hospital would be erected on a 20 acre tract of land situated east of the city limits, and between Eastern Avenue and the Pennsylvania Railroad Company's tracks, and that it would be a general city institution. The tract comprises a portion of the Hardesty land purchased by the city several months ago. It was also announced that the hospital would be given the name of Sydenham Hospital, in honor of the illustrious English physician. The name was suggested by Dr. William Welch, president of the commission.

Pith of Current Literature.

PRESSE MEDICALE.

November 2, 1904.

New Method of Studying the Motility and True Secretion of the Stomach, By MEUNIER.

Stomach Motility and Secretion.—Meunier states that these phenomena are inseparable and must be studied together. He takes for the secretion the ordinary Ewald test meal and adds for the study of motility a small quantity of iron; three grains of the ferric sulphate. This iron is an ideal substance for the purpose, as it is not absorbed by the gastric mucosa, forms a homogeneous mass with the meal, does not modify the gastric secretion, and is of rapid and exact dosage. Meunier's studies have led him to the conclusion that the motility, i. e., the ratio of the volume of the meal evacuated from the stomach to the volume of the meal ingested, varies in the normal stomach from .7 to .9. The ratio of secretion, i. e., the ratio between the volume of pure gastric juice and the volume of the meal, varies from 1.2 to 1.5.

BERLINER KLINISCHE WOCHENSCHRIFT.

October 17, 1904.

1. Dissemination of Tuberculosis of the Female Genitals Over the Body, By P. BAUMGARTEN
2. Disease and Poisoning, By L. LEWIN.
3. Rhythmic Mechanical Compression of the Thorax in the Treatment of Dyspnœa of Cardiac and Pulmonary Origin, By D. BOGHEAN.
4. Questions of Immunity, By A. WOLFF.

1. **Genital Tuberculosis.**—Baumgarten shows that, concluding from his experiments, tuberculosis of the female genital organs has a tendency, as it has among males, to disseminate itself in certain directions limited anatomically. The tuberculosis follows the direction of the secretions which lead the ovule into the uterus after leaving the ovary. The author never observed an ascending tuberculosis of the female genital tract in his experiments. In the urinary apparatus the disease follows the direction the urine takes from the kidney to the urethra. Tuberculosis of the urinary tract is usually an independent disease, not originating in these organs. Baumgarten concludes that human genitourinary tuberculosis follows the same laws as those which control the experimental disease.

2. **Disease and Poisoning.**—Lewin says that there is no essential difference in the effects upon organs between disease and poisoning. Statistics on poisoning due to occupations are very incomplete, since the causal factor is often not known or considered when the disease is being treated. The author urges more energetic measures against the trades in which poisoning of employees is common.

October 24, 1904.

1. A Case of Convulsion Neurosis, By C. WERNICKE.
2. Attempts at Immunization Against Tuberculosis, By P. BAUMGARTEN

3. Satisfactory Treatment of Phthisis and Other Infectious Diseases by Internal Disinfection, By K. KUESTER.
4. The Medicolegal Significance of the Röntgen Rays, By IMMELMANN.
5. Some Questions of Immunity, By A. WOLFF.

1. **Convulsion Neurosis.**—Wernicke describes a case in an alcoholic who, following circumscribed muscular convulsions, developed general muscular convulsions to such a degree that he became entirely helpless. The attacks were never spontaneous, but appeared after some voluntary muscular action. There was diminished faradaic irritability. The author ascribes to alcoholism the cause of the disturbance.

2. **Immunization Against Tuberculosis.**—Baumgarten asserts that cattle can be rendered immune to the ordinarily fatal dose of the bacilli of bovine tuberculosis, by the ingestion, preceded by a single subcutaneous injection, of human tubercle bacilli. The local results are not of a tuberculous character. The experiments seeking to confer immunity upon guinea pigs and rabbits by means of the serum of the immunized cattle, were not successful. The author hopes to find some analogous process of immunization for man.

3. **Treatment of Tuberculosis.**—Kuester describes the effects of the use of griscerin, a modification of loretin, upon a great variety of diseases which have a bacterial origin. According to the author, all infectious diseases can be cured by this remedy, the bacteria being killed or rendered innocuous. He has achieved remarkable results in cases of syphilis, cancer, tuberculosis, diphtheria, scarlet fever, pneumonia, chronic eczema, psoriasis, lupus, and inflammations of the ovary.

November 7, 1904.

1. Imperial Laws Regulating Meat Inspection, By M. WESTENHOEFFER.
2. The Relation of Lecithin to Ferments, By E. REISS.
3. Effect of Cold Upon the Arteries, By M. HERZ.
4. Intestinal Tuberculosis in Children, By R. RICHTER.
5. Diagnostic Value of Cytological Examination of Exudates, By C. PREISICH and H. FLESCH.

2. **Lecithin and Ferments.**—Reiss has experimented to discover the action of lecithin upon the various ferments—rennet ferment, trypsin, emulsin, and pepsin. He finds that by the action of chloroform upon lecithin or vice versa, trypsin and the rennet ferment are taken up. There is probably no chemical combination. The author is not convinced that this reaction influences the action of lecithin in the body.

3. **Action of Cold Upon the Arteries.**—Herz demonstrates that cold has apparently no influence upon the calibre of the larger arteries. In the peripheral arterial branches, cold causes increased blood pressure by contraction of the smallest peripheral arterioles; at the same time, there is diminished blood pressure in the more central branches in consequence of the simultaneous dilatation of the smallest vessels.

4. **Intestinal Tuberculosis in Children.**—Richter narrates the cases he has seen in Waldenburg among the coal and quarry laborers. The most frequent form of the disease is an infection of the mesenteric glands. It is characterized by intense anæmia, emaciation, abdominal pain and sensitiveness about the umbilicus, restless sleep, and occasional fever. Diarrhœas are rare. Despite the severity of the clinical picture, death rarely results from the chronic form of the disease. Scrofula is widely spread among these children. Among adults, tuberculosis is less common than elsewhere. The author attributes many of the cases in children to polluted milk supply and bad sanitary conditions.

5. **Cytological Examination of Exudates.**—Preisich and Flesch discovered a leucocytosis in the cerebrospinal fluid of all cases of purulent cerebrospinal meningitis, and frequently in cases of tuberculous meningitis. The leucocytosis is to be regarded, therefore, as an evidence of meningeal irritation. In their investigations of pleural transudates, the authors found that the presence of small lymphocytes speaks in favor of a tuberculous pleurisy. This is, however, not an absolute diagnostic sign, but, as in all cytological examinations, the clinical data must corroborate the findings. The authors assert that the character of the cells is scarcely affected by the localization of the disease.

ROUSSKY VRATCH.

October 30, 1904.

1. On Pericarditis and Other Cardiac Lesions Following Angina Pectoris, By V. M. KERNIG.
2. On the Retention of the Ovum in the Cavity of the Uterus, By A. ANUFRIEFF.
3. Torsion of the Rectum as a Means of Treating the Prolapse of This Part of the Intestine, By R. R. WREDEN.
4. Two Cases of Primary Cancer of the Lungs, By K. Z. VILLANENE.
5. On the Transplantation of the Uterers, with Resection of the Bladder in Complete Hysterectomy for Cancer of the Uterus by the Abdominal Method (Wertheim's Operation) (*To be concluded*), By F. F. TAVILDAROFF.

1. **Cardiac Lesions Observed after Attacks of Angina Pectoris.**—Kernig calls attention to the lack of data concerning the changes observed in the hearts of persons suffering from attacks of angina pectoris, changes which are discoverable on clinical examination soon after the attack in many cases, and which explain the frequent sudden deaths occurring after such attacks. The recognition of these changes is, however, of great importance, inasmuch as it leads the physician in charge to insist on perfect rest for the patient for days or even weeks after a severe attack, and thus prevents in some instances the occurrence of sudden death. The cases of angina pectoris in which the attacks are followed by the appearance of clinical signs in the heart may be divided into three classes. In the first group there is a rise of temperature and a slight enlargement of the cardiac area of dulness. The fever may be slight, but if other causes are excluded, it is of great value in the diagnosis of myocarditis following angina pectoris. In the second group, there is, in addition to fever, a distinct dila-

tation of one or other of the cardiac cavities, which can readily be discerned on physical examination. Finally, in the third group, there develops an acute endocarditis following an attack. In spite of the fact that clinically the occurrence of acute endocarditis after angina pectoris is not a well recognized phenomenon as yet, it has long since been described pathologically. There is a class of transitional cases in which an attack is followed by physiological changes only, and not by anatomical alterations, i. e., in which there are signs of functional failure of the heart in lessened excretion of urine and dropsy. The author cites a few cases illustrating each of these groups, and advises prolonged observation of all cases of angina pectoris after the attacks, in order to detect the presence of these changes in the heart and to prevent if possible the occurrence of sudden death as the result thereof.

2. **Causes of the Retention of a Dead Ovum in the Uterus.**—Anufrieff discusses the question as to the causes of so called missed abortion. He reports a case in which he made microscopical studies of the decidua, and concludes that it is as the result of these changes that retention takes place when a fœtus dies, provided the muscular and nervous mechanism of the uterus be so affected also, that expulsion no longer can take place. The chief changes noted microscopically in the decidua consist of the obliteration of the blood vessels of the chorionic membrane, and the occurrence of connective tissue growth in the villi proper. In the majority of cases, when these changes in the decidua take place, the ovum is still expelled, in virtue of the physiological activity of the uterus, but when this organ is in a state of atony as the result of muscle and nerve changes, retention follows. Missed abortion is met with most frequently in multiparæ over twenty-five years of age. In a collection of 101 cases made by Boulatoff there were only 12 primiparæ, i. e., 11.1 per cent. The probable explanation is that the older women suffer most frequently from metritis of atonic character. At present it is impossible to prove this hypothesis, owing to the scarceness of pathological specimens of uteri after missed abortion. The best treatment, once a missed abortion has been made out, is curetting or other means of direct removal of the offending ovum, after the dilatation of the cervix by means of Hegar's dilators. A period of from four to six weeks may be allowed to elapse after the diagnosis has been made in order that we may be sure that the fœtus is dead, and that it does not show any signs of further development.

3. **Torsion of the Rectum as a Means of Treating Prolapse.**—Wreden suggests the following method of treating prolapse of the rectum: The rectum is fixed below to the levator ani muscle, but above it is very loosely attached to the surrounding parts. In prolapse it is this movable and loosely attached portion that passes through the firm muscular ring represented by the anus and lower part of the rectum. The incision passes around the anus at about one centimetre away from the pigmented margins. The lower portion of the rectum, including the levator ani, is then separated by blunt dissection from the surrounding tissues—a process which is easy in men and difficult in women. The ring skin is seized with two pairs of forceps, and the separated part of the rectum is twisted upon itself, the prolapsed portion having been replaced. This torsion is made to take place within an arc of from 180 to 270 degrees, in such a manner that the rectal orifice admits only the end of the index finger. The levator ani, as a result of this torsion, so encloses the lower end of the rectum, that when the gut is again fixed in place by a few deep and many superficial sutures, there is no longer any danger of prolapse. The passage of fæces is hindered by the use of opium for a week, and at the end of this time a laxative may be given. The superficial sutures are removed on the same day, and the deep sutures on the ninth or tenth day. The author operated upon six patients in this manner, with good results. The simple technics of this operation is its especial recommendation.

4. **Two Cases of Primary Cancer of the Lungs.**—Villanene reports two cases of primary carcinoma of the lungs,—a condition so rare that Reinhard, in 8,716 necropsies, discovered only five cases. In one of the cases reported all the symptoms pointed to an acute involvement of the lung,—a catarrhal pneumonia. On necropsy numerous cancerous nodules were found in the lungs, arising from both bronchi and alveoli. In the second case there was cancer of the bronchi and of one lung which clinically took the shape of a chronic hepatization, giving rise to the diagnosis of a tumor, which was found at necropsy. Cough, dyspnœa, and emaciation were the most striking symptoms in both cases. In one case there were well marked pains in the chest, while in the other there were no pains.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

December 10, 1904.

1. The Choice and Use of Medical Literature, By HUGH T. PATRICK.
2. Thoughts Suggested by the Study of the Eye Injuries of Independence Day, By ROBERT L. RANDOLPH.
3. Some Further Observations on the Use of the Stem Pessary for Scanty Menstruation, Dysmenorrhœa, Infantile Uterus, and Sterility, By J. H. CARSTENS.
4. Membranous Endometritis, By FLORUS F. LAWRENCE.
5. Adherent Uterus as a Complication of Labor, Citing Two Cases, By JOHN C. APPLEGATE.
6. A Study of Eighteen Consecutive Cases of Whooping Cough Treated by the Elastic Abdominal Belt, By THERON WENDELL KILMER.
7. The Nervous Symptoms Produced in Children by Uncorrected Refractive and Muscular Errors, By J. HERBERT CLAIRBORNE.
8. Congenital Occlusion of the Lacrymal Canal and Acute Contagious Inflammation of the Conjunctiva in Children, By JOHN E. WEEKS.
9. Prophylaxis. Its Various Phases in Relation to Conservation of the Teeth, By CHARLES F. ALLAN.
10. Changes in the Salivary Secretion Affected by Systemic Disease, By HEINRICH STERN and WILLIAM J. LEDERER.
11. Pneumonia. The Value of Internal Medication and Local External Applications, By GEORGE DOCK.

12. The Prevention and Treatment of Heart Failure in Pneumonia, By SOLOMON SOLIS-COHEN.
13. Serum Treatment of Pneumonia, By J. M. ANDERS.
14. Latent and Ambulatory Plague, By MAXIMILIAN HERZOG and CHARLES B. HARE.

3. See this *Journal*, Vol. LXXX, page 134.

4. **Membranous Endometritis.**—Lawrence notes how unsatisfactory any form of local treatment is in membranous endometritis. From a study of forty-two cases of this disease he concludes: (1) Membranous endometritis is probably a condition due to trophic changes in the endometrium secondary to some intrapelvic disease. (2) This intrapelvic disease often is unilateral. (3) It is probably always unilateral in the beginning, although this remains to be proved. (4) The fact that all local methods of treatment have failed to relieve the condition, added to the foregoing facts, seems to warrant removal of the tubes and ovaries on one or both sides when shreds or casts are a part of painful menstruation. (5) Since nearly half of the cases were unilateral, although all of them had suffered for years, the hope is warranted of saving the possibility of maternity in all cases given early operation. (6) Many, if not all, the cases of membranous endometritis are due to ovarian and tubal disease developing as a complication or a sequela to the exanthemata. (7) This being true, the strictest attention should be given those structures during the exanthemata, and the slightest indication of trouble should be promptly dealt with. (8) Early attention may often save one tube and ovary where neglect will sacrifice both. (9) In all cases, no matter what age, in which membrane is cast off during menstruation, a thorough pelvic examination should be made. (10) The importance of a thorough case history in all cases of menstrual pain should be emphasized. (11) Conditions of tubes and ovaries not inflammatory and not due to any form of infection may possible cause this symptom.

5. See this *Journal*, Vol. LXXX, page 135.

6. See this *Journal*, Vol. LXXIX, page 1257.

7. See this *Journal*, Vol. LXXX, page 137.

8. See this *Journal*, Vol. LXXX, page 137.

13. **Serum Therapy in Pneumonia.**—Anders has made an extensive search of the literature for cases of pneumonia that have been treated by various sera. In all he has been able to collect 535 cases with a mortality of 18.3 per cent. He concludes: (1) A sufficiently extensive trial of the antipneumococcal sera has been made to determine with a reasonable degree of accuracy their efficiency, and the results as a whole fail to carry conviction. (2) An efficient serum, or one that will cut short the pneumonic process, is yet to be produced, although, according to some clinicians, the sera available at present have a restricted field of usefulness. (3) Recent observers have employed the serum in massive doses from the commencement of the disease without gratifying results. (4) The practical results of the use of antipneumococcus serum, as shown by the very slight reduction in the mortality percentage, does not warrant its general introduction. (5) The sera thus far found possess no antitoxic qualities, and their supposed antiinfectious properties have not been proven. (6) Further investigations into the subject with a view to discovering an efficacious serum are to be strongly advised and encouraged.

BOSTON MEDICAL AND SURGICAL JOURNAL.

December 8, 1904.

1. Clinical Lecture on Urethral Stricture Delivered at the Boston City Hospital to Fourth Year Harvard Medical Students, By F. S. WATSON.
2. Serum Diagnosis of Tuberculosis, By Dr. ARLOING and Dr. COURMONT.
   - I. The Historical Aspect of the Subject.
   - II. The Technics for Investigating the Serum Reaction of Tuberculosis, Difficulties, and Sources of Error.
   - III. Results and Conclusions.
3. Remarks on the Jurisprudence of Civil Malpractice, Based Principally on the Decisions Rendered by the French Courts, By CHARLES GREENE CUMSTON.
4. The Diagnosis of Incipient Pulmonary Tuberculosis, By JAY PERKINS.

1. **Stricture.**—Watson lays down the following rules for the treatment of strictures: (1) The meatus must be cut to a calibre 2 millimetres larger than that of its normal urethra previous to properly carrying out any form of treatment. (2) Internal urethrotomy yields the most permanent results of any method, and for strictures of the anterior urethra, irrespective of their character, is the operation of choice. (3) All resilient, intractable, nondilatable and impassable strictures of the bulbomembranous or membranous urethra are best treated by external perineal urethrotomy. (4) With the exception of these, all strictures so situated are best treated by gradual dilatation, unless, during its course, constitutional disturbances of importance arise, in which case it is safer to divide them at once by an external perineal urethrotomy. (5) Divulsion and electrolysis are not methods to be commended.

2. **The Serum Diagnosis of Tuberculosis.**—Courmont and Arloing assert that they have been able to establish a method by which the serum diagnosis of tuberculosis can be accomplished. The advantages of such a method are: (1) Harmlessness; (2) ease and rapidity; (3) delicacy. The reaction is nearly always constant in incipient cases but may be absent in advanced ones. In general it may be said that the agglutinative reaction in tuberculous subjects appears most often and within certain limits, in inverse ratio to the gravity of the infection and the extent of the lesions. The practical value of the method is thus estimated: (1) A positive serum reaction in the case of a suspected subject is a diagnostic point of great value in establishing the existence of visceral tuberculosis still active or having become *inactive recently*. (2) A negative serum reaction will have less value as a negative sign since agglutination is absent in a certain number of tuberculous cases. (3) The absence of the serum reaction in cases of advanced tuberculosis, where serum diagnosis is no longer necessary, may in certain cases confirm an unfavorable

prognosis. But on the contrary in the case of a patient suspected of tuberculosis, in the absence of clinical signs and symptoms of importance, the absence of the reaction may be of great value in helping to eliminate this disease. The same conclusions are applicable to serous pleural effusions.

4. **The Diagnosis of Tuberculosis.**—Perkins emphasizes the following facts: (1) Repeated examinations, by competent observers, can justify a positive diagnosis even with the sputum negative and without a tuberculin reaction. (2) With a negative physical examination and no tubercle bacilli in the sputum if the clinical history points strongly to tuberculosis the tuberculin test should be resorted to. (3) A negative examination of the sputum for tubercle bacilli is of no value.

AMERICAN MEDICINE.

December 10, 1904.

1. Some Fundamental Problems in Obstetrics and Gynæcology, By J. CLARENCE WEBSTER.
2. Has a Persistence of the Müllerian Ducts Any Relation to the Condition of Cryptorchidism? By AUGUSTUS GROTE POHLMAN
3. Carbohydrate Metabolism: Relation of the Different Tissues to the Destruction of Sugar, By FREDERICK A. RHODES.
4. The Dangers of the Microscope in the Early Diagnosis of Pulmonary Tuberculosis, By HERBERT C. CLAPP.
5. Brain Tumor and Trauma, By EDMUND W. HOLMES.
6. Fibroma of the Uterus, Complicated by Disorders of the Heart and Kidneys, By GEORGE ERETY SHOEMAKER.
7. The Relation of the So Called "Piroplasma Hominis" and Certain Degenerative Changes in the Erythrocytes, By CHARLES F. CRAIG.

1. **Some Fundamental Problems.**—Webster confines himself to the discussion of the following subjects: (1) The determination of sex; (2) the structure of the ovary; (3) the functions of the ovary; (4) the antagonism between maternal organism and ovum; and (5) the functions of the placenta. With regard to the determination of sex the author has this to say: Sex is fixed by at least the beginning of the second month. Probably we must look to conditions existing during the first month of gestation or to influences affecting either or both of the parents before conception has taken place for the real causes affecting sex. With frogs, bees, and aphidæ a rich diet will lead to the production of females. With the higher forms of life the problem is more complicated. Indeed, it would seem that the most satisfactory theory of sex determination in the higher vertebrates is that which supposes the existence of two forms of ova—one destined to give male and the other female offspring, though it is impossible to establish any such differentiation by microscopical study or chemical analysis.

3. **Carbohydrate Metabolism.**—Rhodes has conducted a number of experiments, which he now reports, for the purpose of determining which organs and tissues contained enzymes which were capable of bringing about the destruction of sugar. He has found, as did Arnheim and Rosenbaum, that all organs contain certain enzymes which can be extracted and which will cause the destruction of grape sugar. The pancreas shows the action more positively than any other organ. At times, owing to a variety of causes, negative results will be obtained.

4. **Tuberculosis.**—Clapp lays stress on the fact that a negative microscopical report does not exclude tuberculosis. It is to be regretted that such an assertion needs repetition.

5. **Brain Tumors.**—Holmes concludes: The pathology of a traumatic brain growth is not different from that of a tumor elsewhere. The upright posture renders the cranium more liable to injury, and in severe traumatism the diffusion of the force increases the dangers to the brain. The direct influence of the blow is shown by the tumor appearing at the seat of injury, the cortex and the cerebellum, therefore, being the parts of the encephalon most vulnerable and most liable to tumor, but by reason of concussion and contrecoup, deeper parts and parts at a distance may be affected, as proved by the clinical evidence of tumor. The fact that the brain is so well protected from infection from without, so long as its outworks, the scalp, the skull, and the meninges are intact, militates against the bacterial origin of tumor, and favors the belief in the cellular, nutritional, and formative element as causatives of new growth. We find the same variety of tumor here as elsewhere, though from traumatic causes (excepting cysts), sarcoma and gumma would seem to bear the greater proportion. The time of the appearance is without limit, in brevity or in duration. A completely kept history of the individual is of the greatest importance in enabling us to make a diagnosis at the very onset of the disease, or by exclusion in the more neutral areas of the brain.

6. **Fibroma of the Uterus.**—See this *Journal*, Vol. LXXX, page 1098.

MEDICAL NEWS.

December 10, 1904.

1. The Immediate Repair of the Pelvic Floor and Perinæum, By EDWARD P. DAVIS.
2. Recent Advances in Surgery, By CARL BECK.
3. The Influence of the First and Second Dentition Periods in the Ætiology of Epilepsy, By WILLIAM P. SPRATLING.
4. The Care of Fractures from the Standpoint of the General Practitioner, By WILLIAM S. NEWCOMET.
5. A New Method for Staining the Capsules of Bacteria: Preliminary Communication, By LEO BUERGER.
6. A New Case of Chloroma with Leucæmia, with a Study of Cases Reported Since 1893, By GEORGE DOCK and ALDRED SCOTT WARTHIN.
7. Intracerebral Injections of Antitetanic Serum in Traumatic Tetanus, By S. D. HOPKINS.

1. **Immediate Repair of the Pelvic Floor.**—Davis describes in some detail his own methods of examining the pelvic floor for injuries due to labor and the general principles according to which such injuries should be repaired. Two only of the author's suggestions seem to differ from those usually given. First, the fourchette should not be repaired

as drainage will be interfered with, and second, douching should not be resorted to as there is danger of carrying infection to the uterus.

3. **Dentition and Epilepsy.**—Spratling summarizes his views as follows: "(1) Difficult dentition, *i. e.*, the piercing of the gums by the tooth may, in suitable subjects, constitute a sufficient irritant to cause convulsions. (2) In suitable subjects these convulsions may ultimately lead to epilepsy. (3) By suitable subjects I mean infants who inherited a neuropathic tendency to disease; whose parents had epilepsy, or insanity, or who were alcoholic, or suffered from some other general vice that could be transmitted to the offspring in some form capable of vitiating its powers of resistance to disease. (4) I do not believe that difficult dentition alone in a child who inherited no ancestral taints, and who at its birth is free from a tendency to nervous disease, can cause epilepsy. (5) Great caution must always be exercised to lay the true cause in cases of this kind where it belongs; for the reason that gastrointestinal disorders, the sequelæ of the eruptive fevers and other factors common at this age, may produce similar results."

4. **Fractures.**—Newcomet discusses fractures from the standpoint of the x ray specialist. He asserts that in difficult cases the x ray should supplant ether, as being safer and far more reliable, in addition to giving a graphic description of the exact amount of damage present.

6. **Chloroma.**—Dock and Warthin conclude in this number their very full paper on chloroma. The authors' own summary of their essay covers a full page. We therefore transcribe only a few of their more general conclusions: (1) *Chloroma is a tumor-like hyperplasia of the parent cells of the leucocytes, primary in the red marrow, the periosteum being involved only secondarily.* The possibility of a primary chloroma in any part of the body in which white cells are formed must be considered. (2) As a result of this leucoblastic hyperplasia atypical leucocytes or leucocytes corresponding to some one of the normal types may appear in the circulating blood in varying number. Chloroma is therefore to be classed with the leucæmias. (5) It is also possible that in certain cases, or possibly stages, of chloroma the hyperplasia of the parent cells may reach such a stage that the new forms do not get into the blood stream in such numbers as to give the picture of a leucæmia. An aleucæmic chloroma is therefore possible. (6) The essential difference between chloroma and other forms of leucæmia is the more marked neoplastic character of the former and the formation of the green infiltrations and metastases. (9) The malignancy of chloroma depends chiefly upon the replacement of the red marrow and the consequent diminished red cell formation. The slight antagonism between the new cells and the body cells would otherwise place it among the relatively benign growths, except in those cases in which important nerve structures are injured by compression by the infiltrations or through rarefaction of the bones. The large numbers of degenerating white cells present throughout the body may possibly give rise to an intoxication. (10) The cause of the green color remains unknown. It is possible that processes morphologically like chloroma may lack the characteristic green color. (11) While classing chloroma temporarily as a unique form of neoplasm, the question of the ultimate ætiology of the process is not settled. At present intoxication or infection can no more be ruled out than in the case of carcinoma or sarcoma. We are in the same position here as in the case of neoplasms in general.

7. **Traumatic Tetanus.**—Hopkins reports three cases of tetanus treated by intracerebral injections of antitetanic serum. One case died and two recovered. The author recommends that large doses of serum be used (20 cubic centimetres at a time) and that the injection be made into the frontal lobes and at a depth of about two inches.

MEDICAL RECORD.

December 10, 1904.

1. Problems in Dietetics, By GILMAN THOMPSON.
2. Rheumatism, By GEORGE E. MALSBARY.
3. Treatment of Pneumonia in Adults, By MORRIS MANGES.
4. A Question in Gall Bladder Surgery. Cholecystotomy or Cholecystectomy? By HARRIS F. BROWNLEE.
5. A Series of Foreign Bodies in the Vermiform Appendix Met With in 1,600 Necropsies, By LOUIS J. MITCHELL.
6. A Case of Cryptorchidism, By JOHN M. FRANCE.

1. **Problems in Dietetics.**—Thompson discusses the dietetic problems which arise in the treatment of typhoid, arthritis deformans, nephritis, diabetes, lithæmia, arteriosclerosis, gout, and rheumatism. It is evident that an abstract of such a paper would be worse than useless. The author has no special fad to champion, but pleads that dietetic treatment should receive as much thought and consideration as does the drug treatment of disease. The important thing to do is to try to acquire some fundamental principles.

2. **Rheumatism.**—Malsbary under rheumatism considers the following five distinct affections: (1) Acute articular rheumatism, (2) Chronic articular rheumatism, (3) Gonorrhœal rheumatism, (4) Muscular rheumatism, and (5) Nodular rheumatism (arthritis deformans). Each one of these kinds of rheumatism is discussed in succession and the treatment indicated.

3. **Pneumonia.**—Manges emphasizes the fact that we must look upon pneumonia as a general disease, having a tendency to end favorably after a certain length of time, and exhibiting lung phenomena as its local lesion. The indications for treatment are five: (1) To maintain life; (2) to support the heart; (3) to control hyperpyrexia; (4) to relieve suffering, and (5) to control complications. The best ways of fulfilling these indications are discussed at considerable length. The paper ends with the following caution: "I would once more warn against routine or scheduled plans of treatment. The successful outcome of a case of pneumonia is sometimes a matter of luck, but more often a matter of judgment. In few diseases are the therapeutical indications more sharply outlined; in

no other is the practice of therapeutics so great an art."

4. **Cholecystotomy or Cholecystectomy?**—Brownlee is in favor of leaving the gall bladder behind whenever it is possible. He reviews the possible ill effects that may follow cholecystectomy.

5. **Foreign Bodies in the Appendix.**—Mitchell, in 1,600 autopsies, found foreign bodies in the appendix eighteen times. None of the appendices containing these bodies showed any signs of inflammation in the past or at the time of death.

LANCET.

November 26, 1904.

1. The Treatment of Enteric Fever (Bradshaw Lecture), By F. F. Caiger
2. The Life History of Parasitic and Saprophytic Bacteria and Their Mutual Relation, By E. Klein.
3. Clinical Observations on the Anæsthetic Effects of Methyl Oxide, Ethyl Chloride, and the So Called "Somnoform" (*Concluded*), By F. W. Hewitt.
4. Memorandum on the Red Light Treatment of Smallpox, By J. T. C. Nash.
5. Further Note on the Red Light Treatment of Smallpox, By T. F. Ricketts and J. B. Byles.
6. The Mechanism of the Aortic Valves in Health and Disease, By R. J. Ewart.
7. The Evolution of Man's Diet. VIII, By H. Campbell.

1. **Treatment of Typhoid.**—Caiger divides the methods of treatment of typhoid fever into four classes, as follows: 1. Specific. So far no antitoxic serum has been produced, although Chantemesse claims to have done so. On the other hand, Wright's method of antityphoid inoculation with attenuated typhoid cultures, not only confers a considerable degree of protection, but it also exercises a mitigating influence on the severity of the attack. 2. Antipyretic (a) Drugs. Of all the drugs used to reduce the temperature in typhoid fever, quinine is undoubtedly the best. It is markedly inhibitory to the growth of the typhoid bacillus in cultures, has no depressant influence upon the heart, and does not inhibit the elimination of toxines from the system. Its full effect is not reached until after four or five hours. (b) Cold. The best method of treatment by means of the abstraction of heat is the cold bath, as advocated by Brand. But in England its use has been mainly restricted to the combating of hyperpyrexia in special classes. It owes its superiority to its influence on the nutrition of the skin and the maintaining of the excretory activity of the skin and kidneys. Barr's method of treatment by means of the continuous tepid bath gives excellent results, but relapses are unduly frequent. Ice cradles, cold and wet packs, and cold sponging all have their advantages in special cases. 3. Antiseptic. It is now recognized that any attempt to achieve the destruction of typhoid bacilli in the lower region of the intestinal canal by the administration of antiseptic drugs by the mouth is nothing short of futile unless given in such quantity as to harm the patient. But antiseptics are rightly given in the confident hope that they will inhibit the growth of the typhoid bacillus and of the various putrefactive organisms associated with it in the alimentary canal. In suitable cases calomel is an excellent antiseptic; in others it produces harmful intestinal irritation. Sulphurous acid in twenty minim doses is capable of checking fermentative changes in the bowel: the oil of turpentine is also valuable in the same way. The author has used the essential oil of cinnamon in a series of 147 cases. Of these 14 died, a mortality of 9.5 per cent. The favorable effects noted were as follows: 1. The temperature ran at a lower level than is customary in typhoid, the daily mean approximating 101° F. 2. The patients remained for the most part drowsy throughout their illness, many of them evincing a constant desire to sleep, as a result of which mental rest was secured and delirium was less frequent. 3. Intraintestinal fermentation, as evidenced by abdominal pain, distention, and fœtor, was controlled to a striking extent. To obtain the full effect, two and a half to five minims of the essential oil must be given every two hours, but it must be begun in much smaller doses. Care should be taken that the best quality of the oil be used: the earlier in the disease it is begun the better the result. Experiments show that the oil of cinnamon has an appreciable, though slight, inhibitory influence on the growth of the typhoid bacillus in a dilution of one in 2,600: at one in 1,000 its strength is complete. The pulse furnishes an indication of the highest value: in at least half the cases death is due to circulatory failure. In most cases alcohol is not only not required, but it is occasionally harmful. The special indications demanding its use are: Constant delirium and sleeplessness, with tremor, weak circulation, and a dry tongue; undue weakness of the pulse; cardiac dilatation, cyanosis, and pneumonia; hyperpyrexia, excessive diarrhœa, and intestinal perforation. The treatment of intestinal hæmorrhage consists in the giving of a full dose of opium, the use of the ice bag, and the complete deprivation of fluids. As regards perforation, a moribund condition of the patient is the only contraindication to operation.

2. **Saprophytic and Parasitic Bacteria.**—Klein gives a summary of our present knowledge concerning the ultimate origin, evolution, and life history of pathogenic microorganisms. Some of his conclusions are as follows: The same phylogenetic relation exists between cocci and bacilli as between the true torulæ and saccharomyces or oidium, and the bacilli themselves are the counterpart of those blastomycetes which belong to the group of the saccharomycetes. The true torula is the parent trunk; bacteria, commencing with cocci, represent one kind of branch; oidium and streptothriceæ another, and sporogenous hyphomycetes a further phylogenetic diversion of the latter. Amongst the bacteria the typical cocci would be the primary forms, next would come streptococci and coccobacilli, and last the true bacilli. And amongst the bacilli, those species capable of forming true spores represent a phylogenetic advance, just as hyphomycetes are higher than saccharomycetes. The demarcation between true saprophytes and true parasites is, owing to the existence of a group of intermediary or conditional parasites, not defined. There is evidence to show that an ordinary saprophyte under altered conditions can produce patho-

genic effect, thriving in the tissues of an animal. Further a microbe under one condition an ordinary saprophyte, can raise itself not only to parasitic life causing pathogenic action, but to a parasitic action which is as specific as that of the bacillus anthracis—*e. g.,* the streptococcus pyogenes or the pneumococcus. Pathogenic bacteria live much longer in media containing few saprophytes: they grow more slowly and are weaker than saprophytes.

3. **Anæsthetics.**—Hewitt has studied the effects of methyl oxide, ethyl chloride, and somnoform when used as anæsthetics. Methyl oxide and somnoform were unsatisfactory. Ethyl chloride is a fairly good substitute for nitrous oxide, but it produces unpleasant after-effects. By adding ethyl chloride to nitrous oxide very deep anæsthesia is rapidly and pleasantly produced.

4, 5. **Red Light in Smallpox.**—Nash endorses Finsen's red light treatment of smallpox, and reports three cases in which suppuration and secondary fever were prevented by its means. Ricketts and Byles, who have published several articles deprecatory of the value of red light in smallpox, here answer Finsen's criticism of their observations, and state that treatment was begun sufficiently early in all their cases.

BRITISH MEDICAL JOURNAL.

November 26, 1904.

1. Remarks on Trypanosome Diseases, By R. KOCH.
2. The Treatment of Enteric Fever (Bradshaw Lecture), By F. F. CAIGER.
3. "Tick Fever," By P. H. ROSS and A. D. MILNE.
4. Note on the Rôle of the Horse Fly in the Transmission of Trypanosoma Infection, with a Reply to Colonel Bruce's Criticisms, By L. ROGERS.
5. Trypanosomiasis in the Anglo-Egyptian Sudan, By A. BALFOUR.
6. Sleeping Sickness (Trypanosomiasis): the Prevention of Its Spread and the Prophylaxis, By C. CHRISTY.
7. The Bacteriology of Certain Parts of the Alimentary Canal and the Inflammatory Processes Arising Therefrom. (Report No. LXXXVIII to the Scientific Grants Committee of the British Medical Association), By J. T. HEWETSON.

1, 4, 5, and 6. **Trypanosomiasis.**—Koch discusses the various diseases in men and animals due to trypanosome infection. Trypanosomes belong to the flagellata, the ciliated protozoa. They resemble a fish, are twice as long as a red corpuscle, have long flagella, and on one side an undulating membrane. They do not form pigment, and increase by longitudinal fission. The symptoms of the disease much resemble malaria—irregular fever, anæmia, emaciation, and swelling of the lymphatic glands and spleen.

The most important trypanosome disease is the tsetse fly disease, which is widespread in Africa. The trypanosomes of this disease (*T. brucei*) are pathogenic for all domestic animals, especially for horses. They are probably carried by a stinging fly, *Glossina morsitans.* Another trypanosome disease is the surra which is prevalent in Asia, where it affects horses and camels. Morphologically the parasite is identical with *T. brucei,* and infection takes place by means of stinging flies, *Stomoxys* and *Tabanus.* America has also its trypanosome disease, *mal de Caderas:* it prevails in South America and is dangerous chiefly to horses. Sleeping sickness is human trypanosome infection. The parasites of men cannot be distinguished from those of tsetse or surra, either morphologically or in their pathogenic properties. The medium of infection is a stinging fly, *Glossina palpalis.* South African cattle suffer from an infection with a parasite known as Theiler's trypanosome, which is two or three times as long as those already mentioned. Trypanosomiasis is widespread in rats, but the parasite does not seem at all pathogenic for its host, and cannot be transmitted to other species. Rogers states that other flies besides the tsetse flies can carry the trypanosoma infection. Of these, horse flies are the most important in the case of surra. Balfour reports the finding of trypanosome infection in mules in the Anglo-Egyptian Sudan. This was to be expected, as *Glossina morsitans* are prevalent there. Christy discusses the prevention of the spread of sleeping sickness and its prophylaxis. The first step would be the mapping of all the areas of distribution of the different species of tsetse flies. These areas are probably not very large nor do they extend far from water. The compulsory evacuation by the population of the presumably fly area might not only prevent the spread of the disease, but might eradicate it altogether, if the persons evicted were sent sufficiently far away to be out of reach of the tsetse, and prevented from returning for seven years, by which time all those with sleeping sickness would probably have died off. The same protection is necessary against the flies as against anopheles mosquitoes to prevent malarial infection.

3. **Tick Fever.**—Ross and Milne have studied the blood from cases of tick fever occurring in Uganda, and found a spirillum present. It therefore seems probable that the disease is spread through the bites of infected ticks. The disease is not fatal and lasts only about a week.

7. **Bacteria of the Alimentary Canal.**—Hewetson reports the results of his studies of the bacteria to be found in inflammatory lesions of the alimentary tract. In non-suppurative appendicitis, the contents of the appendix were sterile in about half the cases. In the others the bacillus coli was present in the great majority of the cases, the other organisms found being the staphylococcus aureus and albus, and streptococcus pyogenes. In 44 cases of suppurative appendicitis the relative frequency of the organisms found was as follows: Bacillus coli 34, Micrococci 18, Streptococcus pyogenes 7, Diplococci 5, Bacillus pyocyaneus 5, Pneumococci 2, Diplobacillus 1, Actinomycosis 1. Of 19 examinations of the biliary passages 3 alone were sterile. Here too the B. coli predominated. The supposed antiseptic properties of human bile have been greatly exaggerated. As regards the stomach, where no ulceration is present, even in a dilated stomach, the great majority are sterile after fasting. But when ulceration is present the degree of sterility is low, even after a long fast.

Proceedings of Societies.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Meeting of November 3, 1904.

(Concluded from page 1148.)

The PRESIDENT thought one had to theorize a good deal on the mechanism of labor in such cases, since they happened so infrequently. Laceration of the fourchette and anterior portion of the perinæum, he said, not infrequently appeared on the skin surface and rapidly extended upward through the perinæum into the vagina. This was not to be considered a central laceration of the perinæum, but an ordinary laceration beginning at the central portion and tearing anteriorly through the perineal body.

It had occurred to him that Dr. Nicholson's explanation of the mechanism of central rupture by spasm of the levator muscles was not wholly satisfactory. He supposed that many had had the experience noticed by himself, that just before the final birth of the occiput there was sometimes a sudden giving way of some obstruction to the advance of the head. He believed that this quick release of the head was due to a sudden overdistention of the pelvic floor, mainly the levator muscles, which at once allowed the head, being freed from the group of those muscles, to pass through the vulvar ring. With a long and deep perinæum and a firmly flexed head, and this premature retraction of the levator muscles preventing the usual function of these muscles, i. e., extension of the head, the conditions were all present that favored central rupture. Dr. Norris had so attempted to explain cases of this kind according to his ideas of the normal and abnormal mechanism of this stage of labor. He thought it possible that a spasm of the levator muscles would hold the head overflexed, but that before central rupture of the perinæum could occur, the anterior fibres of the levator must give way, either by laceration or by retraction. The practical side of the question was that at this stage of labor the obstetrician should see that the head did extend. Dr. Norris referred to Dr. Goodell as having taught that the introduction of the finger into the rectum would aid in the extension of the head. Now that rubber gloves were worn during the conduct of labor, with this accident impending. this advice would be a useful means of preventing it, the glove, of course, to be withdrawn from the hand so soon as the head was expelled.

Dr. NICHOLSON agreed with Dr. Bernardy that overflexion of the head was the prime cause in all cases, whether there was an anterior or posterior occipital position. The overdistention of the perinæum, antedating the true central laceration, precluded the possibility of mistaking an ordinary case, in which the perforation began just a little posterior to the fourchette and extended forward into the posterior commissure, as a central laceration. He thought Dr. Longaker's view justifiable in multiparæ. In women in whom laceration had previously occurred he thought it easy to suppose that the head might drop down into the so called perinæal gutter, and that rupture would occur; but in a young woman, without previous injury, and in whom the resulting vaginal tear was but very moderate, he thought the traumatism must be explained on some other ground. He felt that the accident was due to overflexion of the head, but could not say how it occurred. Looking down from above into the pelvis, there would be seen the curtainlike position of the lower fibres of the levator ani muscle. It seemed possible that the fibres might cause the head to be held in a flexed position, and the posterior part of the occiput would be directed down toward the rectum.

In the treatment, he thought all would agree that there should be immediate repair of the injury, and to prevent rectal wounding the use of the scissors or knife, in order that, by cutting down to the tear through the perinæum, tension might be relieved. He referred to the fact that in a recent obstetrical book the number of recorded cases of the injury, in the history of the world, was only seventy-five, while there had been mentioned there in the meeting five besides his own. He knew also of another case in town which he had expected would be reported at the meeting. He thought it was thus shown that the rarity of an obstetrical condition was not always in accordance with the statements made in textbooks.

The Therapeutic Value of Ergot in Labor.—Dr. J. C. APPLEGATE, in this paper, did not regard ergot as a safe or appropriate remedy for uterine inertia, as set forth in many text books on therapeutics, nor for any condition during labor until the presentation or expulsion of the placenta. He said that its physiological effects on the uterus were specific and unlike the rhythmical labor pains in that they were less intermitting, more continuous, predisposing to constriction, particularly of the lower segment; and that, if it was prematurely administered, the attending dangers are: Rupture of the uterus, asphyxiation of the child or paralysis of the fœtal heart from compression, and retention of the placenta and membranes. He believed it better to complete the dilatation manually. In the event of failure of other remedies he would deliver instrumentally and express the placenta after the Credé method, which was rarely followed by any complication of the third stage or post partum hæmorrhage.

He believed that ergot was indicated as a safeguard after delayed labor or when inertia had been a factor, after placenta prævia, and after reposition of the inverted uterus. The method of administration might be by the mouth when it was indicated for the prevention of hæmorrhage, but it should be administered hypodermically for the control of hæmorrhage. For the sole purpose of preventing septic infection, in the judgment of the author, it was practically of no value. With the labor conducted aseptically, it was not indicated; if septically, and the uterus normally contracted under the influence of compression, the too complete locking within the uterus of blood and excreta intended to be liberated, the further contraction of the muscles and the arterioles, and the dilatation of the veins under the influence of ergot, rather favored the absorption of septic material.

Dr. **Roland G. Curtin** said he had always used ergot as recommended by Dr. Applegate when he had attended labor cases, and thought his advice very good indeed. Most of the ergot he had given of late had been for other hæmorrhages than those of the uterus. He believed it efficient even in those cases, though many regarded it as not good therapeutics to give it except in hæmorrhage connected with the uterus. In an article written by him some time ago on hæmorrhage in typhoid fever he had given ergot as one of the remedies. One journal criticized him severely and expressed surprise that he did not know more about the action of ergot. Nevertheless, in cases where there was a general oozing from the mucous membrane he thought it did good. Feeding a cock with spurred rye would cause, first, a dark hue of the comb, and if the feeding was continued longer the comb might die, he said, was a statement made by writers in the past. He believed the teaching of Dr. Applegate's paper would have a good effect and do good in directions in which it was needed.

Dr. **Daniel Longaker** said that, as far as he could gather, he agreed to the position taken by the author of the paper. He could say in a practical way that several of the most difficult cases of extraction of the placenta he had seen were cases in which ergot had been given largely. In one case it was impossible to extract the placenta until ether was given, though there were no placental adhesions. He referred to two cases of women in certain sections of the city within three squares of each other, who in a comparatively short time died of post partum hæmorrhage after they were left by their physician. One of them was moribund when Dr. Longaker arrived. The other one was dead when the physician was recalled a few hours after the birth of the child. In neither of these cases had ergot been used. He was inclined to think that the routine complete emptying of the uterus and the administration of ergot would prevent calamities of this kind.

Dr. **William R. Nicholson** thought it was Zweifel who had recently advocated, immediately after delivery, that the transverse position on the bed be assumed and that the vagina be cleansed of all clots of blood, maintaining that the morbidity was greatly diminished by that procedure. Dr. Nicholson thought this would seem to many too radical a stand. It seemed to him that ergot, instead of increasing the chances of infection, had the opposite effect, and offered the means of cleansing the uterine cavity in a way not possible by any other means, thus indirectly fulfilling Zweifel's intent. He referred to a physician from up the State, who had a large obstetrical practice and who told him a few months ago that it was his practice to give a hot uterine douche after every delivery. He, however, *never allowed his assistants* to do it, and stated that he got better involution by this means than would otherwise occur. Dr. Nicholson regarded ergot as a prophylactic against sepsis and as an extremely valuable drug.

Dr. **Applegate** agreed that ergot might be of great advantage as a preventive against septic infection when there was profuse bleeding or other evidence of a relaxed condition of the uterus. On the other hand, with the uterus normally contracted and safeguarded by the formation of venous thrombi, he was still of the opinion that ergot had the characteristic of locking up the secretions, dilating the veins, and thus aiding in the absorption of septic material.

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A LIST OF REQUISITES FOR OBSTETRIC CASES AT HOME.

By J. MILTON MABBOTT, M. D.,
NEW YORK,
ATTENDING OBSTETRICIAN TO THE NEW YORK INFANT ASYLUM, ETC.

It was several years after I graduated in medicine before I knew where to put my hand on a suitable list of articles required for a confinement case in private practice. In Cullingworth's *Manual for Monthly Nurses* I found a list, excellent so far as it goes, to which due acknowledgments are made in publishing a more complete formula which has gradually been evolved from my own requirements. So many of the articles are commonplace that the list is not nearly so formidable as may appear at first glance.

DR. MABBOTT'S LIST.[1]

- Nail brushes.
- Soap.
- Green soap.
- Lanolin.
- Vaseline.
- Sol. of argyrol (12 per cent.).
- Powdered boric acid.
- Sodium chloride.
- Chloroform.
- Ergot or ergotole.
- Antiseptic tablets (bichloride of mercury).
- Carbolic acid.
- Creolin.
- Lysol.
- Whiskey or brandy.
- Absorbent cotton.
- Gauze or cheese cloth.
- Ice.
- Hot and cold water.
- Basins for—
  - *a.* hands.
  - *b.* antiseptic solution.
  - *c.* bathing patient.
  - *d.* ice.
  - *e.* placenta.
  - *f.* vomiting.
- Pitchers for—
  - *a.* hot water.
  - *b.* cold water.
  - *c.* forceps.
- Sterilizer (fish kettle and gas stove).
- Fountain syringe.
- Douche pan.
- Bed pan.
- Pail or slop jar.
- Glass catheter.
- Clinical thermometer.
- Bath thermometer.
- Glass and spoon.
- Medicine dropper.
- Waterproof sheeting.
- Sheets.
  - blankets.
    - spread.
- Wrapper.
  - nightgown.
    - underwear.
- Leggings, including feet.
- Bed pads (36 x 36 inches).
- Towels.
- Roller towel or loops to pull on.
- Napkins or vulva pads.
- Binder.
- Breast binder.
- Needles and thread.
- Nursery or safety pins.
- Narrow tape (bobbin) for tying cord.
- Scissors.
- Receiver for baby.
- Pieces of old linen.
- Olive oil.
- Baby's bath and bath sponge.
- Scales to weigh baby.
- Puff box, complete set of clothes, and separate bed for baby.

The list practically covers the number of articles to be supplied at the house in readiness for the confinement. Articles to be crossed out in an individual case include obviously some of the antiseptics, the clinical thermometer (if furnished by the nurse), and two or three of the less important accessories under certain circumstances. I have had the list printed on single slips of paper and have found it useful in practice as well as in the instruction of nurses.

I will take the liberty of explaining that the lanolin is for the prevention of sore nipples, as recommended in my article under that title published in the *New York Medical Journal*, September 10, 1898.

19 Fifth Avenue.

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[1] Cross out articles not wanted.

Book Notices.

Syphilis and Gonorrhœa. By C. F. MARSHALL, M. D., Ch. B., Senior Assistant Surgeon to the Hospital for Diseases of the Skin, Blackfriars, London; Formerly Resident Medical Officer to the London Lock Hospital, etc. London: Rebman, Limited; New York, Rebman Company, 1904. Pp. viii-267.

The purpose of the author of discussing the main, or salient, points of these two diseases, syphilis and gonorrhœa, is carefully carried out in a short but quite comprehensive and clear manner.

His first chapter, on the history of the morbus gallicus (syphilis), is a most interesting résumé of the works of the most prominent ancient and modern syphilographers of the old world.

In his subsequent chapters he brings out all the most up to date investigations on the ætiology and pathology of the disease, with a concise but very thorough description of the symptomatology, especially the neurological and hereditary branches of this affection. Under treatment, the use of serum is lightly touched as a recent affair, while the more well known methods are briefly reviewed.

The author concludes with a few chapters on the history, ætiology, symptoms, complications, and treatment of gonorrhœa, both in the male and in the female, which, although not thorough, nevertheless includes the most important points that have recently been brought out.

A Manual of Experimental Physiology. For Students of Medicine. By WINFIELD S. HALL, Ph. D., M. D. (Leipsic), Professor of Physiology, Northwestern University Medical School; Professor of Physiology, Wesley Hospital School for Nurses, etc. With 89 Illustrations and a Colored Plate. Philadelphia and New York: Lea Brothers & Co., 1904. Pp. 239.

In the preparation of this book the author has been guided by the experience he has had in teaching experimental physiology to medical students. The development of the subject is based on the difficulty of the technics and the correlation of other work of the medical course.

The first two chapters are devoted to experimental general physiology, including cytology, to give the student training in histology and elementary physiology, and experimental work in the general physiology of muscle and nerve tissue. Subsequent chapters are devoted to the features of laboratory work in special physiology.

The book gives the impression of a very useful and satisfactory handbook for laboratory work.

Health, Strength, and Power. By DUDLEY ALLEN SARGENT, A. M., Sc. D., M. D., Director of Hemenway Gymnasium, Harvard University. Illustrated. New York and Boston: H. M. Caldwell Company. Pp. x, 256.

It is excellent that so experienced a teacher as the author should prepare a practical volume on physical exercise that may be performed without the use of apparatus. The pretentious and expensive systems that have been given such advertising prominence indicate the existence of a considerable number of persons whose sedentary life has impressed them with the desirabilty of some simple system of muscular exercise. This volume will meet the wants of that class, and indicate the exercises desirable for different periods of life in both sexes. The text is excellently illustrated, and each exercise is carefully described.

Anatomie und physikalische Untersuchungsmethoden (Perkussion, Auskultation, etc.). Anatomisch-klinische Studie von Dr. R. OESTREICH, Privatdozent an der Universität, Prosketor des Königin Augusta-Hospitals, Berlin, und Dr. O. DE LA CAMP, Privatdozent an der Universität, Assistent der II. med Univers.-Klinik (Charité), Berlin. Berlin: S. Karger, 1905. Pp. vi-266.

In this work there is an interesting study of the physical signs of disease with special reference to topographical anatomy, pathology, and the findings of the Röntgen ray. In the first part is presented a satisfactory treatment of acoustics from the standpoint of the auscultator, the transmission of sound in tubes, the methods and limitations of modern radioscopy, a very complete view of abnormities and variations in the form of the body, and a comparative analysis of physical signs elicited upon the living body and the cadaver. In the second part of the work the special organs and their diseases are considered, and we know of no similar work in English which is as full and adequate. The book is worthy of translation and should be of practical value to all who are interested in the broader and progressive aspects of clinical medicine.

The Principles and Practice of Gynæcology. For Students and Practitioners. By E. C. DUDLEY, A. M., M. D., President of the American Gynæcological Society; Professor of Gynæcology, Northwestern University Medical School, etc. Fourth Edition, Revised. With 419 Illustrations in Colors and Monochrome, of which 18 are Full Page Plates. Philadelphia and New York: Lea Brothers & Co., 1904. (Cloth, $5.00; leather, $6.00; half morocco, $6.50.)

The fact that three new editions should have been called for since the first appearance of Dr. Dudley's treatise shows that it has met with deserved appreciation. In this revision the author has dispensed entirely with borrowed illustrations, and has added more than three hundred new ones. For the most part they are well chosen and well executed. As regards the text, the principal changes are found in the sections relating to general diagnosis, local treatment, major operations, drainage, urethritis, cystitis, ovarian tumors, embryology, malformations, and the treatment of salpingitis, oophoritis, and pelvic peritonitis. They are all in the direction of a clear exposition of the most rational teachings of the present day. But the revision has not been confined to the sections mentioned; it is recognizable throughout the book. There is every reason to expect that Dr. Dudley's treatise will long be looked upon as a standard.

New Methods of Treatment. By Dr. LAUMONIER. Translated and Edited from the Second Revised and Enlarged French Edition by H. W. SYERS, M. A., M. D., Cantab.; Physician to Out-Patients Great Northern Central Hospital. Chicago: W. T. Keener & Co., 1904. Pp. xviii-321. ($2.50.)

As the daily work of practice does not afford leisure to read the various journals with the accounts of new remedies, the number of which is continually so much increased by the manufacturing chemists, the author of this book considered that a manual that would give concisely definite and complete information concerning the newer drugs and methods of treatment that had an established value would have a welcome from the profession.

Following a French classification, the remedial agents are divided into nutritive alterants, blood alterants, mineral medicaments, respiratory alterants, renal alterants, vasomotor alterants, opotherapy, serotherapy, nerve alterants, antipyretics, and antiseptics.

It would seem that in a work such as this convenience would have been served if all effort at classification had been dispensed with, and the several remedial agents had been described in alphabetical order.

The doses of glycerophosphates given on pages 40 and 41 are high, and the dose of cocodylate of sodium hypodermically given on page 56 seems high. It would have been well in a work such as this to explain the composition of "alcoolature d'oranges" in the formulas on pages 46 and 47. The dose of *demi-verres ordinaires* is uncertain, and should have been given in an English equivalent. Aside from these minor features the translator has performed his task acceptably.

Manual of Serum Diagnosis. By Dr. O. ROSTOSKI, University of Würzburg. Authorized Translation by Dr. CHARLES BOLDUAN. First Edition, First Thousand. New York: John Wiley & Sons; London: Chapman & Hall, Limited, 1904. Pp. vi-86. (Cloth, $1.00.)

A clear exposition of the theory and facts of serum diagnosis and of bacteriolysins and agglutinins is of great interest to the profession, and the translator has augmented the value of Rostoski's original paper in the *Würzburger Abhandlungen* by an account of Ficker's method for typhoid diagnosis, the test with formalin typhoid cultures, and paradysentery. The author concedes that the presence or absence of the Gruber-Widal reaction does not speak positively for or against the existence of typhoid fever, but he regards its presence as a first cardinal symptom of that disease. There is a fair account of agglutination in other diseases. There is also a description of the precipitins as diagnostic agents, of Deutsch's hæmolytic blood test, and of Kraus's phenomenon.

BOOK AND MAGAZINE NOTES.

Much has been written and said in the last few years about the prevalence of tuberculosis, its cause, and its responsibility for much of the suffering in the world, but comparatively little is known about the variety and number of efforts being made in all parts of the country to bring it under control.

In the *Directory of Institutions and Societies Dealing with Tuberculosis,* which is about to be issued jointly by the Committee on the Prevention of Tuberculosis of the New York Charity Organization Society and the National Association for the Study and Prevention of Tuberculosis, the attempt is made for the first time to present a bird's eye view of all the organized work that is being done in the United States and Canada for the care and cure of consumptives and the prevention of consumption.

The directory is an attractive volume of 270 pages and some sixty illustrations, well printed and bound in a blue linen which suggests a trained nurse's costume. The book is divided into six parts: I. Sanatoria, hospitals, and camps; II. Special dispensaries; III. The tuberculous insane; IV. Tuberculous prisoners; V. Municipal control of tuberculosis; VI. Association for the Prevention of Tuberculosis, including societies, committees, and State commissions.

Part I is by far the most important section of the book, consisting as it does of descriptions and views of the 125 hospitals and sanatoriums in which consumptives may receive treatment, with short introductory articles by Dr. E. L. Trudeau, of the Adirondack Cottage Sanitarium, on Essential Features in Sanatoriums for Incipient Cases, and by Dr. Lawrence F. Flick, of the Henry Phipps Institute in Philadelphia, on Essential Features in Hospitals for Advanced Cases. These introductory articles supply a standard by which the average reader can judge of the value of existing institutions in many points, and they furnish suggestions to persons who are planning new ones. The descriptive list of existing institutions will be a welcome guide to the physicians and friends of consumptives, whether poor or well to do. The exact name and location of each hospital and sanatorium is given, the charges and other terms of admission, the number of patients received, directions in regard to applying for admission, a more or less extended description of the situation, and in many instances views of the buildings or grounds. They are arranged according to the States in which they are located, and are in this way easy to refer to. An index further facilitates reference by classifying them according to the prices charged and according to the stage of the disease for which they are intended.

The section on dispensaries is particularly interesting to charitable workers and physicians who have a large practice among the poor, for it gives the location, office hours, and other details in regard to the thirty-two special dispensaries for the free treatment of tuberculosis. The value of such dispensaries and the important features in their conduct are discussed in an article by Dr. Edward O. Otis, superintendent of the Boston dispensary.

The rest of the book is devoted to an account of the attempts which are now being made to provide special care for consumptives in hospitals for the insane and penal institutions, with articles by Dr. J. B. Ransom, of Clinton Prison, N. Y., and Dr. A. E. Macdonald, formerly medical superintendent of the Manhattan State Hospital East; a description of a municipal system for the control of tuberculosis, by Dr. Hermann M. Biggs, medical officer of health of New York city, together with a summary of the measures which are now taken in the principal cities of the country; and, finally, statements of the methods of work and plans of the thirty-eight societies for the prevention of tuberculosis, immediately preceded by an article on the need for such societies, and their function, by Edward T. Devine, general secretary of the New York Charity Organization Society.

The directory will be of value to every physician and social worker and to every one who comes in contact in any way with persons suffering from tuberculosis. It will be ready for distribution about December 20th, and the price will be one dollar. Orders may be sent in advance to the Charity Organization Society, 105 East Twenty-second Street, New York.

The handsome Christmas *Cosmopolitan* contains Beyond the Blue Hills, by Jeanne Olive Loizeaux, a story concerned with the marriage of a trained nurse—not to a doctor, however. Some Churches and Their Problems will show physicians that they are not the only professional men with troubles.

Girls and Boys is a striking series of pictures in the Christmas *Everybody's,* by Emilie Benson Knipe; the child faces and figures are excellent. The whole number is handsome and interesting.

Physicians, as a rule, do not travel much for pleasure during the winter months, but those who may find occasion to take a winter trip will find *The Winter Boarder,* issued by the New York Central and Hudson River Railroad, a valuable directory of hotels and boarding houses at prices to suit pocketbooks of all weights.

BOOKS, PAMPHLETS, ETC., RECEIVED.

First Report of the Wellcome Research Laboratories at the Gordon Memorial College, Khartoum. By the director, ANDREW BALFOUR, M. D., B. Sc., etc., Fellow of the Royal Institute of Public Health, Member of the Epidemoological Society, etc. Pp. iii-83. Khartoum, 1904: Department of Education, Sudan Government.

A Laboratory Guide in Elementary Bacteriology. By WILLIAM DODGE FROST, Ph. D., Assistant Professor of Basteriology, University of Wisconsin. Third Revised Edition. Pp. xiii-395. New York, 1903: The Macmillan Company. London, 1903: Macmillan & Co., Ltd. [$1.60.]

Miscellany

The Relation of the Islands of Langerhans to Diseases of the Liver, With Especial Reference to Carbohydrate Metabolism. — Ohlmacher concludes his contribution upon this subject in the *American Journal of the Medical Sciences,* for August, 1904, as follows:

1. Diseases of the liver are generally accompanied by an enlargement of the islands of Langerhans, which is considered a true compensatory hypertrophy.

2. The fact that the liver and the islands of Langerhans have been shown to possess properties which aid in governing the carbohydrate metabolism suggests that it is the limitation of this function in the liver which is being compensated by the enlargement of the islands of Langerhans.

3. Two theories concerning the operation of this phenomenon may be considered. One based on Lépine's theory assumes the elaboration of the glycolytic ferment in the islands of Langerhans, which, entering the blood, causes the oxidation of any sugar in excess of the normal amount, and that with an increase of the sugar in the blood resulting from hepatic disease an additional responsibility is placed upon the islands of Langerhans in the elaboration of this ferment, in order that a normal sugar balance may be established. These structures if healthy, in response to the additional demands placed upon them, undergo hypertrophy.

Another theory suggested by Herter and Wakeman's experiments with adrenalin chloride and similar substances is that the secretion of the islands of Langerhans possesses an inhibitory influence upon the liver cells in their property of converting glycogen into sugar, and that with a decreased liver activity an additional functional activity of these islands is stimulated, resulting in their hypertrophy.

4. It is probable that diseases of the liver occur prior to cirrhotic changes in the pancreas, as shown by certain cases in which the islands of Langerhans are greatly enlarged, but otherwise unchanged, though surrounded by dense bands of fibrous tissue.

5. It is probable that an increase in the number of the islands of Langerhans occurs by transformation of the acini of the pancreas into these structures. This is seen in cases in which the fibrous tissue of the pancreas is not increased, though an abundance of interacinous cell groups may be present.

6. Extensive involvement of the islands of Langerhans in a hyaline degenerative process may occur without a resultant diabetes. This is because the unaffected islands have undergone great hypertrophy thus compensating for the lost or limited function of the affected islands.

7. The compensatory hypertrophy which the healthy islands of Langerhans undergo explains in some cases of diabetes the diminution and then the disappearance of sugar in the urine. This property of the healthy interacinous cell groups of the pancreas also accounts for treatment with a carbohydrate diet in certain mild forms of diabetes.

The absence of sugar after return to a general diet may signify that a sufficient degree of hypertrophy has occurred in the healthy islands of Langerhans.

Intrapelvic Hæmatoma Following Labor Not Associated With Lesions of the Uterus.—Williams, in the *American Journal of Obstetrics,* for October, 1904, defines puerperal hæmatoma as the effusion of a greater or lesser quantity of blood into the connective tissue spaces of some portion of the genital tract or into the structures immediately adjacent to it, in contradistinction to hæmatocele formation, in which the blood is poured out into the peritonæal cavity and then becomes encapsulated. He classifies hæmatomata as vulval, perineal, vaginal, and subperitoneal or broad ligament, according to their point of origin. Vulval hæmatomata, or thrombi, usually appear soon after the labor has terminated, occasionally before the birth of the child, and, more rarely still, in the latter months of pregnancy. They are sometimes present in non-pregnant women as the result of traumatism. They usually involve one labium majus, but may extend to the perinæum and buttocks, or over the lower portion of the abdominal wall. Only when they are of large size do they imply a serious prognosis. Vaginal hæmatomata in which the blood is in the connective tissue surrounding the vaginal wall out beneath the pelvic fascia may be of considerable size and may obstruct delivery if occurring during labor, or may cause a damming back of the lochia during the puerperium. Sub-peritonæal hæmatomata in which the blood is beneath the peritonæum, but above the pelvic floor are rare, and are usually due to incomplete rupture of the uterus, or to deep cervical tears or to the rupture of vessels in the broad ligament near the supravaginal portion of the cervix or the base of the bladder. This condition may also follow the rupture of a pregnant tube between the folds of the broad ligament, and in non-pregnant women they may result from injuries to blood vessels or the neighboring viscera in the course of curettage, or in removing tumors, and occasionally from violent coitus. The author narrates a case of subperitoneal hæmatomata in which the bleeding began almost immediately after the delivery of the placenta and formed a large tumor in the connective tissue space in front of the bladder and over almost the entire abdominal wall. Abdominal section was performed, the blood and clots removed and the hæmorrhage located at an oozing surface on the inferior and anterior portion of the bladder. The wound was packed, and though the loss of blood had been very great, the patient made a good recovery, without evidence of sepsis. In studying the literature of this subject Williams found that the accident occurs most frequently in primiparæ. It is also rather singular that in most cases it has been associated with easy labors and small children. The mortality was large in preantiseptic days, but has since been greatly reduced and is usually due to infection, especially if there is communication between the hæmatoma and the vaginal canal. The cause of this hæmorrhage is often obscure. In a number of instances, including the author's, it has been a capillary hæmorrhage, probably brought on by the tearing of small vessels as the tissues were dragged from their attachments by the friction exerted by the oncoming presenting part. The diagnosis may be indicated by the presence of severe tearing pains about the rectum and lower abdomen without any visible lesion. This should not be mistaken for after-pain, and should the patient soon pass into collapse the diagnosis will become more definite. The position of the fundus above the umbilicus instead of midway between the umbilicus and the symphysis pubis is also an important diagnostic point and is caused by the pressure of the tumor upon the uterus. Vaginal examination will show whether the hæmorrhage is within the broad ligament or is sub-peritonæal in some other location, but it will not prove that the hæmatomata does not proceed from incomplete rupture of the uterus, which must be borne in mind. In most cases the treatment must be expectant, intravenous injection of salt solution being made, and stimulants used freely. Should the tumor increase rapidly in size and collapse become more and more pronounced an abdominal section will enable one thoroughly to get at the situation. This is preferable to vaginal incision which may not enable one to determine definitely the source of the bleeding and hence may be ineffectual. But the vaginal route should be preferred if the acute symptoms have passed and there is evidence of suppuration. The possibility of recurrence of the hæmorrhage in such cases is small, and the danger of contaminating the peritoneal cavity is obviated.

The Ætiology of Prostatic Hypertrophy.—Churchman, in the *Maryland Medical Journal*, for November, 1904, reveals the unsatisfactory status of the above question. Early theories have one by one been abandoned. Among them was Home's that prostatic hypertrophy was due to the disadvantageous position of the veins of the bladder, congestion of these veins tending to produce the condition in question. Wilson attributed it either to celibary or venereal excess, Bell to predisposition and vesical irritation, Samuel Cooper to a sedentary life, Astley Cooper and Brodie to physiological changes, Gross and Mercier to anything which caused habitual prostatic engorgement, Amussat to syphilis, Desault to gonorrhœa, Civiale to calculus and stricture, Sir Henry Thompson and Velpeau to neoplastic changes similar to the fibromyomata of the uterus. Guyon and Lannois regard it as part of a general senile change associated with genitourinary sclerosis. Ciechanowsky, in 1896, demolished all these theories and affirmed that changes in the stroma were adequate to explain all phenomena, and these were due to a proliferative connective tissue process. Localized in the central parts of the prostate they might cause narrowing or obliteration of the lumen of the main excretory duct with consequent accumulation of secretion and enlargement of the peripheral lobules. If they occupy mainly the periphery, and the vicinity of the terminal branches of the tabules of the aeini, prostatic atrophy will result. In other words, the condition is essentially a chronic inflammatory process. This view has been accepted by various pathologists after careful work upon the living and the dead. In the majority of cases it is believed that the original infection was gonorrhœal. Rothschild studied the histological changes in the chronically inflamed prostate and found that Ciechanowsky's account of its pathology harmonized with it, as well as with Finger's account of the pathology of gonorrhœa, and concluded that the beginning of the disease was in youth, years before the gland begins to enlarge. His conclusion, in brief, was that prostatic hypertrophy is a later manifestation of prostatic inflammation, and was most frequently a *gonorrhœa tarda*. Keyes, on the other hand, thinks the clinical evidence is against rather than in favor of the inflammatory theory. Of more than 400 cases of enlargement of the prostate analyzed by him less than 5 per cent. showed clinical evidence of previous prostatitis. Another series consisted of 54 cases of posterior urethritis between the ages of 50 and 83 years, and in these there was not a single case of prostatic hypertrophy. In a third series of 2,164 cases of all kinds studied at their fiftieth year 425 (19 per cent.) showed prostatic hypertrophy, 71 gave a history of chronic prostatitis, of which 17 (24 per cent.) showed prostatic hypertrophy. In other words, Keyes's analysis showed that the influence of a preexisting prostatitis in causing the prostate to hypertrophy is not great, otherwise the urethritis cases would show a larger proportion of hypertrophied prostates than the general cases. Evidently the pathological and the clinical findings do not agree, and the author observes that we are in need of clinical evidence based on the most careful observations and cystoscopic examinations and until these are obtained it must be admitted that it is improbable that early gonorrhœa causes the condition in question. On the pathological side it is necessary to exclude other causes of the inflammation which may itself be an accompaniment or a sequel of the hypertrophy. Such causes, for example, as catheterization, retained urine, and vesical calculus.

Postoperative Intestinal Obstruction.—Peck, in the *Annals of Surgery*, for October, 1904, concludes his article as follows: The possibility of postoperative obstruction should be borne in mind in all abdominal operations, especially in those which are likely to be followed by extensive adhesions, for example, appendicitis with peritonitis, or pyosalpingitis with pelvic peritonitis. Hence all raw surfaces should be covered if possible with normal peritonæum, or with carefully arranged omentum. Incisions should be as small as possible, and there should be the least possible manipulation and evisceration. The peritonæum should be cleansed rapidly and gently. Flushing with hot saline solution is desirable if much foreign material is to be removed. If drainage tubes are required they should be small, cigarette drains being preferable to gauze, because they are less irritating to the surrounding peritonæum.

In pyosalpingitis and pelvic peritonitis there is rarely a necessity for drainage, and when the necessity exists it can usually be accomplished through the cul-de-sac. Diet and regulation of the bowels must be considered with great care during the first few weeks of convalescence. Attacks of gaseous indigestion with colicky pain should be regarded with suspicion and treated promptly and vigorously. Early attacks of obstruction should be relieved by enemata, position, gastric lavage, and other approved measures. If they are successful the patient should be kept on a scanty fluid diet for a considerable period, and carefully watched for a possible recurrence of symptoms. Should palliative measures be unsuccessful an operation should be promptly performed. In obstruction which occurs later than four to six weeks after operation, palliative measures are seldom effective and an early operation is usually demanded. Patients who have been subjected to operation for intraabdominal inflammation should be warned of the possibility of obstruction at any time, should be urged to avoid indiscretion in diet, and should be impressed if possible with the necessity of seeking advice promptly should such obstruction occur. The operative procedure must be adapted to each individual case; the right Kammerer incision for cases in which complete healing has followed appendicitis is frequently efficient, while the median incision is desirable for most other conditions. Resection and end to end anastomosis is usually preferable to enterostomy where gangrene or sloughing of the wall of the gut requires the one or the other.

Clinical Observations on Guinea Pigs Inoculated With Tuberculosis and Treated With Currents of High Frequency.—Higgins and Chirdwood, in the *Montreal Medical Journal*, for September, 1904, found as the result of their experiments that high frequency currents exerted a beneficial influence in the effort of the system to overcome the effects usually produced in animals infected with the bacillus tuberculosis. The average life of the tuberculous guinea pigs which were thus treated was 42.4 days, while the average in those in which the disease was allowed to run its course was 28.5 days.

The authors think that the difference, 13.8 days, indicates a gain which was due to the treatment, and this seems the more encouraging, in view of the fact that the germ with which infection was produced was an exceedingly virulent one, much more virulent than would be the case in ordinary human infection. They also call attention to the fact that the disease was well advanced before treatment was begun, which was shown not only by the length of life in the untreated animals, but by the temperature records and by the animals which were inoculated prior to the experiments, and from which the infective agent was obtained. The authors believe that the experiments should be repeated with a germ of a less virulent type, which would conform to that which is usually found in cases of human tuberculosis. The period of exposure could be extended to thirty minutes daily, allowing the animals thus exposed the remainder of the twenty-four hours to recuperate from its effects. It would also be a matter of importance that the exposure should not be made in the afternoon when the temperature is highest and the functions of the animal in a disturbed condition.

Official News.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the week ending December 9, 1904:

Place.	Date.	Cases.	Deaths.
Smallpox—United States.			
California—San Francisco	Nov. 19-26	1	
Dist. of Columbia—Washington	Nov. 26-Dec. 3	1	
Illinois—Chicago	Nov. 26-Dec. 3	12	2
Indiana—Hammond	Nov. 23-30	1	
Kentucky—Louisville	Nov. 24-Dec. 1	6	
Louisiana—New Orleans	Nov. 26-Dec. 3	1	
		Two imported.	
Michigan—Detroit	Nov. 26-Dec. 3	1	
Michigan—Grand Rapids	Nov. 26-Dec. 3	1	
Michigan—At 62 localities	Nov. 19-26	Present.	
Missouri—St. Louis	Nov. 26-Dec. 3	22	5
New York—Elmira	Nov. 26-Dec. 3	1	
Ohio—Zanesville	Nov. 12-19	1	
Pennsylvania—Philadelphia	Nov. 26-Dec. 3	1	
South Carolina—Georgetown	Nov. 30-Dec. 6	2	
Tennessee—Memphis	Nov. 26-Dec. 3	1	
Wisconsin—Milwaukee	Nov. 19-Dec. 3	39	
Smallpox—Foreign.			
Belgium—Brussels	Nov. 12-19		1
Brazil—Pernambuco	Oct. 15-31		48
France—Lyons	Nov. 12-19	1	
France—Paris	Nov. 12-19	16	3
Great Britain—Dundee	Nov. 12-19	1	
Great Britain—Glasgow	Nov. 18-25	1	
Great Britain—Leeds	Nov. 19-26	1	
Great Britain—London	Nov. 12-19	1	
Great Britain—Manchester	Nov. 12-19	5	
Gt. Britain—Newcastle-on-Tyne	Nov. 18-25	6	1
Great Britain—South Shields	Nov. 18-25	2	
Great Britain—West Riding, including Dewsbury and environs	Oct. 1-31	137	
India—Bombay	Nov. 1-8		2
India—Madras	Oct. 29-Nov. 4		1
Italy—Catania	Nov. 17-24		2
Italy—Palermo	Nov. 5-12	9	6
Russia—Moscow	Nov. 5-12	2	2
Russia—St. Petersburg	Nov. 5-12	7	
Turkey—Constantinople	Nov. 13-20		30
Yellow Fever.			
Brazil—Pernambuco	Oct. 15-31		1
Ecuador—Guayaquil	Nov. 8-16		1
Mexico—Coatzacoalcos	Nov. 19-26	1	2

Cholera.			
Russian Empire—Astrakan (suburb)	Oct. 14-16	3	2
Russian Empire—Baku	Oct. 11-18	60	24
Russian Empire—Morsha	Oct. 8-17	51	23
Russian Empire—Samara district	Oct. 10	Sporadic.	
Plague.			
Brazil—Pernambuco	Oct. 1-31		1
India—Bombay	Nov. 1-8		52
Japan—Formosa	Sept. 3-10	1	1

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending December 10, 1904:

BROWNELL, C. D., Surgeon. Detached from the *Amphitrite,* and ordered to the *Iowa.*

SEAMAN, W., Passed Assistant Surgeon. Detached from the *Wabash* and ordered to the Navy Yard, Boston, Mass.

URIE, J. F., Surgeon. Sick leave extended three months from December 9, 1904.

WHEELER, W. W., Surgeon. Detached from the *Philadelphia,* ordered home, and granted sick leave for three months.

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending December 10, 1904:

ARTHUR, WILLIAM H., Major and Surgeon. Appointed a member of an army retiring board to meet at the War Department from time to time.

FULLER, LEIGH A., Captain and Assistant Surgeon. Relieved from duty at the General Hospital, Fort Bayard, New Mexico, and ordered to Fort Clark, Texas.

GEER, JAMES D., Major and Surgeon. Appointed a member of an army retiring board to meet at the War Department from time to time.

JOHNSON, R. W., Major and Surgeon. When services are no longer required at the Louisiana Purchase Exposition grounds, will proceed to Fort Crook, Neb., for duty.

POLHEMUS, A. S., Major and Surgeon. Retired from active service on account of disability incident to the service.

VAN DUSEN, JAMES W., First Lieutenant and Assistant Surgeon. Granted thirty days' leave of absence, from December 1, 1904.

WOODSON, R. S., Captain and Assistant Surgeon. Ordered to proceed to Hot Springs, Ark., for treatment.

The following named Surgeons are relieved from duty in the Philippines Division, will proceed by the first available transport to San Francisco, Cal., and upon arrival will report by telegraph to the Military Secretary of the Army for further orders: Majors J. M. BANISTER, A. E. BRADLEY, PETER R. EGAN, R. J. GIBSON, H. I. RAYMOND, and CHARLES RICHARDS.

Public Health and Marine Hospital Service:

List of Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the Public Health and Marine Hospital Service for the seven days ending December 7, 1904:

BALLARD, J. C., Acting Assistant Surgeon. Granted leave of absence for three days from December 9, 1904.

BILLINGS, W. C., Passed Assistant Surgeon. Granted leave of absence for ten days from December 23rd.

CARMICHAEL, D. A., Surgeon. To proceed to Washington, D. C., for special temporary duty. December 3, 1904. To proceed to Evansville, Ind., for special temporary duty. December 6, 1904.

CUMMING, H. S., Passed Assistant Surgeon. Granted leave of absence for seven days. December 6, 1904.

EBERSOLE, R. E., Assistant Surgeon. Granted fifteen days' extension of leave of absence from December 6th.

ECHEMENDIA, D. M., Acting Assistant Surgeon. Granted leave of absence for thirty days from December 1st.

GAHN, H., Pharmacist. Granted leave of absence for fifteen days from December 8th.

GASSAWAY, J. M., Surgeon. Granted extension of leave of absence for one day, November 27th.

GOLDSBOROUGH, B. W., Acting Assistant Surgeon. Granted leave of absence for two days. December 5, 1904.

HOLT, J. M., Passed Assistant Surgeon. Granted leave of absence for one day, November 25, 1904, under paragraph 191 of the regulations.

SAFFORD, M. V., Acting Assistant Surgeon. Granted leave of absence for nine days from December 10th.

STILES, CH. WARDELL, Zoologist. Granted leave of absence for three days from November 30, 1904, under paragraph 191 of the regulations.

VON EZDORF, R. H., Passed Assistant Surgeon. Relieved from duty in connection with the exhibit of the Service at the Louisiana Purchase Exposition, St. Louis, Mo., and directed to proceed to Washington, D. C. December 7, 1904.

Births, Marriages, and Deaths.

Born.

HOWELL.—In Fort McPherson, Georgia, to Dr. Park Howell, United States Army, and Mrs. Howell, a son.

Married.

BRODERICK—BRYAN.—In St. Louis, Missouri, on Tuesday, November 29th, Dr. John K. Broderick and Miss Mabel Bryan.

DAVIS—AGOSTINI.—In New York, on Wednesday, December 7th, Dr. Fellowes Davis, Jr., and Miss Gertrude Agostini.

DILLON—HOMEYER.—In St. Louis, Missouri, on Saturday, December 3rd, Dr. William A. Dillon and Miss Ann Homeyer.

HUTCHENS—BROWN.—In Kansas City, Missouri, on Monday, November 21st, Dr. Delaney M. Hutchens and Miss J. Blanche Henderson Brown.

MCCONNELL—BOERLEY.—In Harper's Ferry, West Virginia, on Sunday, November 20th, Dr. I. H. McConnell and Miss Nellie Boerley.

SCHACHT—WIESE.—In St. Louis, Missouri, on Saturday, November 26th, Dr. Frederick E. Schacht and Miss Sophia Gloria Wiese.

STREET—SWINGLE.—In Washington, D. C., on Wednesday, November 30th, Dr. D. Baen Street, Jr., and Miss Mabel Henderson Swingle.

Died.

BIXLER.—In Carlisle, Pennsylvania, on Saturday, December 3rd, Dr. Jacob P. Bixler, in the sixty-fourth year of his age.

CARROLL.—In New York, on Friday, December 2nd, Dr. William E. Carroll, in the fifty-eighth year of his age.

FISCHER.—In Philadelphia, on Friday, December 9th, Dr. John Fidelle Fischer, in the sixty-first year of his age.

FOSTER.—In Canandaigua, N. Y., on Friday, November 25th, Dr. Charles A. Foster, in the ninetieth year of his age.

GEROULD.—In Kirkwood, Missouri, on Sunday, December 4th, Dr. Martin L. Gerould, in the sixty-fourth year of his age.

GRAVES.—In Paynes Depot, Kentucky, on Sunday, December 4th, Dr. C. J. Graves, in the seventy-eighth year of his age.

GRIFFIN.—In Atlanta, Georgia, on Wednesday, November 30th, Dr. Eli Griffin, in the seventy-sixth year of his age.

JURIN.—In New York, on Wednesday, December 7th, Dr. Tobias Jurin, in the thirty-fourth year of his age.

KOHLER.—In St. Louis, Missouri, on Monday, December 5th, Dr. Hugo W. Kohler, in the forty-first year of his age.

MILLER.—In St. Louis, Missouri, on Monday, November 28th, Dr. J. M. Miller, in the seventy-third year of his age.

PALMER.—In Spokane, Washington, on Monday, November 21st, Dr. William E. Palmer.

WILEY.—In Bethel, Maine, on Tuesday, November 22nd, Dr. Robert G. Wiley, in the ninety-eighth year of his age.

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Original Communications.

A CONTRIBUTION TO THE SERUM THERAPY OF SYPHILIS.

By JUSTIN DE LISLE, M. D.,

NEW YORK.

Every laboratory result contributes to progress in two important directions; first, in opening the way for future investigations, and second, in the application of the result in practice. No great forward strides in the history of medicine have equaled those made since the revelations of biology and bacteriology have been adopted by the practitioner. It would be useless and burdensome to set forth the statistical evidence that so thoroughly establishes the modern treatment of diphtheria, tetanus, snake bite, glanders, etc. A new department in therapeutics has been opened and duly christened serum therapy.

Not least among the many candidates waiting for general recognition by this department of rational medicine, is the serum treatment of syphilis.

Long before the bacillus of syphilis was isolated and successfully cultivated upon artificial media, many attempts at the serum treatment of syphilis had been made. Investigators in this line reasoned that, be the contagion what it might, the blood of the afflicted individual, from its proved virulence, must be the tissue of favorite residence; therefore, if an animal was injected with syphilitic blood, which of course included the contagious element of syphilis, there must necessarily be generated in the organism of the vaccinated animal an antisyphilitic substance. But full consideration was not given to the nature of the ultimate product of such a vaccination, and when the resulting serum was tried upon cases of syphilis, it soon became evident that instead of being a remedy for the disease, the serum was hæmolytic, and would dissolve, in vivo, human blood globules, thus menacing not only the integrity of the blood, but the life of the patient as well. However, this line of investigation was not given up until numerous variations had been tried, such as the transplantation of chancres under the skin of the lower animals, and the employment of their serum, or the injection of the serum of a patient, presenting secondary or tertiary lesions, under the skin of another who had only the primary manifestations of the disease. It only remains to be recorded that this research was finally abandoned, and experimenters were contented to wait until the microbe of syphilis should be isolated.

As the culmination of a protracted investigation, the bacillus of syphilis was revealed and duly anounced to the medical world in 1901; but this only served as a starting point for a still more complicated and arduous work, viz., the vaccination of animals and the clinical trial of their serum. It is not practical in a brief paper to detail the preliminary work, or wise to burden the reader with the results of the numerous experiments that finally led up to the production of an antisyphilitic serum; but before passing to the clinical data that have been collected and reported by careful and conservative medical men it is desirable briefly to discuss the theories that bear upon bacteriolysis in vivo.

Antisyphilitic serum is in no wise an antitoxine. It is in reality a toxine, that is, a toxine for the bacillus of syphilis, for which it has a particular and specific affinity. When the toxine comes in contact with the syphilitic organism, it causes that bacillus to disappear.

It has been argued by many writers that, according to the fundamental mechanism of bacteriolysis, a bacteriolytic serum cannot exercise its functions in vivo, because of the absence of the alexine free in the circulation. It is admitted, from observation and experiment, that bacteriolysis depends upon the conjunction of two bodies, i. e., the sensibilisitrice, or the specific substance that sensitizes the particular microbe or cell, and the alexine or body that actually dissolves the sensitized microorganism or cell. Now in vitro the phenomenon of bacteriolysis is evident and carries its own explanation, for both alexine, and, in cases where the animal has been vaccinated with the particular microbe, sensibilisitrice, are present, consequently when the microbe in question is brought in contact with this serum, solution takes place. It must also be understood that the alexine is an extremely sensitive body, a temperature of 56° or 57° (C.) destroying it completely, and even at the ambient temperature, in the course of a day or so, it is enfeebled and, later on, completely lost.

Therefore, it has been reasoned, should a bactericidal or bacteriolytic serum be generated, its solvent power would only be of a few hours' duration, on account of the absence of one of its essential ingredients, viz., the alexine, and such a serum's value as a curative agent, when injected into the organism of the diseased animal, must necessarily remain nil, because the alexine is not found free in the blood as the latter circulates in the vessels.

Very naturally the question arises, how does a bacteriolytic serum act? For in practice such serums certainly do act, and cause the destruction of the particular microorganism for which they have a particular affinity.

Without entering into the controversy as to whether there are one, two, or even more alexines, it only remains to be pointed out where this substance can be found in the circulating fluids of the organism, and thus grasp the key to bacteriolysis in vivo.

The proposition is: First, bacteriolysis depends upon the conjunction of the sensitizing body (sensibilisitrice) and the solvent body (alexine). In the absence of either one of these bodies, solution will not take place. Second, the alexine is never free in the circulating blood, and is only an evanescent element in blood (serum) outside of the body.

How then explain bacteriolysis caused by the injection, into a living animal organism, of a bacteriolytic serum?

Beginning with the serum of an animal that has been vaccinated with a particular microbe, presumably this serum has been heated to 56 degrees during one hour, or is a week, or a month or more old, and the alexine has all disappeared, but the specific anticorps (sensitizing body or sensibilisitrice) is present. Now select an individual, suffering from a disease caused by the particular microbe for which this body (sensibilisitrice) has a special affinity. Finally, if the malady is one wherein the microbe, which is the cause of the disease, possesses only a feeble positive chemiotaxia, and circulates with, but is ignored by, the phagocyte, we have an ideal condition for the employment of a bacteriolytic serum.

The serum, containing, as we have stated, the sensitizing body (sensibilisitrice) sensitizes the microbe, which is then immediately seized upon by the phagocyte, and, as the phagocyte always contains the alexine, bacteriolysis instantly begins, because of the conjunction of the two bodies essential thereto.

Turning now to clinical results, it may be stated that the following are barely representative of the cases of syphilis that have been treated with antisyphilitic serum. To this date there are records of about 100 cases treated with the serum, and the results are in accord with those described here. It is well to warn the reader, however, that certain remarks occurring between the following narratives are merely the ideas and opinions of the writer, and that other standards of judgment and observation might lead to other conclusions.

The first case was referred, in December, 1902, by Dr. A. Palmer Dudley, as a good one in which to try the antisyphilitic serum. The patient had been carefully examined by Dr. Eugene Fuller, and Dr. Frederick A. Lyons, and the diagnosis of syphilis confirmed. Briefly, the history of the case is as follows:

Mr. J., aged thirty-two years; occupation, painter; residence, New York; never before had any venereal disease; general health good; complains of pains in the head. About the 15th of December, 1902, the date of examination, there could be observed a well marked chancre on the left tonsil, with involvement of the submaxillary and postcervical glands. The chancre presented all the classical appearances, with perhaps a slight exaggeration of hardness. The glands at the elbow and in the groins were involved and slightly enlarged. The secondary eruption was just beginning to appear through the skin over the chest and back. The patient had never received specific medication.

On December 23rd, the first hypodermic injection of antisyphilitic serum (20 c.c.) was administered. On December 30th, I saw the patient again, and he reported that twenty-four hours following the injection the eruption on his skin became more prominent and was accompanied by a general breaking out of urticaria. This urticarious eruption was most prominent on the soles of the feet and the palms of the hands. However, these eruptions only lasted twenty-four hours, and, at the time of examination, that is to say, one week after the first injection, nothing could be discovered on the skin. The general adenitis described in the first examination showed some improvement. The chancre on the tonsil appeared to be about the same. A second injection of antisyphilitic serum was now made. On January 7, 1903, the patient reported that he had suffered no inconvenience from the preceding injection. Examination revealed total subsidence of the adenitis of the glands at the elbow and in the groin. The general health was excellent, and the pains in the head had subsided.

January 14th. Administered third injection of antisyphilitic serum. Patient had suffered no inconvenience from former injection. Careful examination of chancre showed marked improvement. Hardness and infiltration of the involved tonsil were fast disappearing. The glands of the neck were of less than one half the size they were at the first examination. I saw the patient again on January 21st, and administered the fourth injection of antisyphilitic serum. Patient said he was in good health. Careful examination disclosed absolutely no trace of former lesions. The chancre had completely disappeared leaving no hardness or infiltration, and the swelling in the glands of the neck had subsided. On January 30th, this patient still continued in the same good condition as at the previous examination; no adenitis; no swelling or hardness in the affected tonsil; no eruption on skin. At this time he was given another dose of antisyphilitic serum, making the fifth.

On February 15th, a specimen of this patient's blood was taken, and after subjecting it to a temperature of 56° C., it was mixed with an equal quantity (1 drop) of a culture of the bacillus of syphilis, with the result that no agglutination or clumping of the bacilli was observed, even after prolonged contact. Dr. Dudley followed the case throughout the treatment.

April 20, 1904. This patient reported himself as in good health, perfectly free from any trace of syphilis, and so confident of his complete cure as to have married some eight months previously.

A case treated by Dr. Orville Horwitz, in the outdoor department of the Jefferson Medical College Hospital of Philadelphia, ended in the disappearance of the patient, and in spite of a personal search his hiding place was not found.

Through the courtesy of Professor Eugene Fuller and the cooperation of his excellent assistants, Dr. Cilley and Dr. Spooner, all of the Post-Graduate Hospital, New York, every facility was furnished for the treatment of several syphilitics in his clinic of the outpatient department, yet none of the patients ever returned after the second or third injection, nor could they be found, that the effect of the treatment might be learned. Therefore, outpatient departments have been abandoned, and the cases for treatment selected from private practice or prisons.

One of the most interesting cases, so far as results are concerned, was that treated by Dr. Henry Griswold:

History: E. Y., male, aged thirty-two years; American, single, city official of good habits, and athletic. He noted sores on penis six weeks after suspicious intercourse, and on November 14, 1903, consulted Dr. Rupert Folger, of Whitestone, L. I., who referred him to Dr. Griswold for treatment. He was given mercury until January 6, 1903. At this time, buboes in groin were pronounced, and the roof of the mouth, and the gums were covered with mucous patches. There were five chancres on the penis. All medication having been discontinued for one week, on January 13th, the first injection of antisyphilitic serum was given in the left hypogastric region, and the mucous patches were touched with silver nitrate. There was a chill five hours after the injection, followed by fever, with an occasional chill lasting for forty-eight hours.

January 20th. Chancres on penis had healed over, but buboes were still large, hard, and sore. A second injection of serum was given beneath the right scapula, and the throat was again touched with silver nitrate. Chills and fever again set in, five hours after the injection, lasting forty-eight hours. Urticaria from shoulders to ankles also appeared, and itching was very troublesome for two nights.

January 27th. A third injection under left scapula; throat touched with silver nitrate; chancres smaller and softer; rise of temperature for thirty-six hours.

February 3rd. A fourth injection in the right hypogastric region; no silver used; high temperature for forty-eight hours; chancres improving; buboes painful after injection.

February 10th. A fifth injection; no fever following; pain less severe; chancres smaller and softer.

February 17th. A sixth injection; throat much better; high temperature, lasting twenty-four hours.

February 24th. A seventh injection; slight fever for twelve hours.

March 3rd. An eighth injection; only slight trace of chancres; throat and mouth appeared to be entirely healed; no trace of buboes; no fever or pain resulted from injection.

The patient would ordinarily have been discharged as cured at this time, but the case had been so virulent and refractory, that a test of the blood was made, and it was found still to agglutinate. It was, therefore, decided to continue the treatment. Thenceforth no fever, pain, or reaction of any kind followed the injections, five of which were given, at intervals of a week. The thirteenth and last injection was given on April 14th. Thirty days later, the patient's blood was again tested, and there was no agglutination.

The progress of the treatment of this case was observed by several physicians, who united in expressing their satisfaction over the result; as a final test, it was proposed, by Dr. W. R. Blue, of Louisville, Ky., that specimens of the blood of this patient, who was now pronounced to be free from syphilis, be injected under the skin of a healthy man. Dr. Blue reasoned that if this man was really cured, then his blood would no longer communicate the disease. With the aid of Dr. N. L. Bosworth, of Lexington, Ky., the written consent of two boys (aged fourteen and seventeen years) who were under sentence to be hanged, was obtained to submit to this experiment. In addition, it was found necessary to have the signature of the governor and of other State officials. All these preliminary arrangements having been made, the cured patient was about to be taken to Lexington, when through some unguarded source, the local reporters got an inkling of the experiment, and began publishing sensational articles in the press. Consequently the trial was abandoned. Happily something now occurred that, in a measure, gave the data hoped for from the inoculation of the young criminals; on June 6th, the patient married without the consent of either of his physicians.

June 10th. The patient reported that on June 6th, while having first intercourse with his wife, he had torn the skin covering one of the old chancres. (Note: This patient is a pronounced blond, very thin skinned, and, although the site of the chancre had entirely healed over, the cicatricial tissue was not tough.) The resulting hæmorrhage inundated the vagina and vulva of the wife.

Both the patient and his wife have since been under surveillance, and, at this writing, April 25, 1904, the former has had no recurrence of symptoms, while the latter has failed to develop the slightest indication of infection. This is an instance where the blood of a recent syphilitic, cured with injections of antisyphilitic serum, has come in contact with lacerations on the person of a perfectly healthy individual.

The treatment of several cases of syphilis, bearing different manifestations of the disease, was undertaken at the City Hospital at Blackwell's Island. Dr. Charles L. Gibson was attending physician, and Dr. Yocum, house physician, when the patients were first injected. Later on, the staff was changed to Dr. Prince A. Morrow, attending physician; Dr. Follen Cabot, assistant; and Dr. E. L. Gill, house physician, and continued so from September 1st to the end of the treatment. Injections were given by Dr. Ferguson and Dr. Meeker, of the house staff. Owing to the now limited supply of serum, it was agreed that each patient selected was to receive six injections, and the effect, if any, was to appear in the report.

CASE I.—W. N., Irish, single, aged forty-two years, stableman, heavy drinker; denied previous venereal disease; eruption on body. Patient noticed a small papule on top of glans about nine weeks before, coming about seventeen days after suspicious coitus. This lesion increased in size, and became indurated, but did not ulcerate. It was indolent and painless, except when irritated. Soon after, the glands in the groin enlarged. Patient said that two weeks after he had noticed the chancre, an eruption appeared on his body. This was papulosquamous, with large scales, copper colored, and appeared only on the trunk; it did not itch. Patient had never had a sore mouth or throat or alopecia. He now had enlarged postcervical and epitrochlear glands; since entrance, had had pains in knees, ankles, and shins. On August 30th, the patient developed a specific iritis.

Treatment. Six serum injections; eruption gone; some enlargement of the glands remained; no mucous patches; iritis somewhat improved; general condition good.

CASE II.—J. F., American, single, aged twenty-nine years; occupation, dyer; had had gonorrhœa several times; eruption all over body, and sore on penis. Sore appeared on penis five weeks before, coming on three weeks after suspicious coitus. At first there was a mere abrasion, but later the covering tissue became thicker and harder. The seat of the lesion was beneath the foreskin and near the frenum. The glands in the neck, groin, and epitrochlear region were enlarged. The patient had no headache; the muscles of legs and shoulders had been painful; he had sore throat. About two weeks after the chancre, he noticed a bright red papular eruption all over the body. It was first noticed on the flexor surfaces of arms.

Treatment. Six injections of serum; sore on penis well; glandular enlargement disappeared; throat well; no mucous patches; eruptions fading; appetite good; weight increasing.

CASE III.—H. W., German, single, aged thirty-eight years; occupation, not stated; had had five attacks of gonorrhœa, the last being two years before; had had malaria twelve years ago; eruption on body. Patient had two sores inside prepuce the previous April. These were burned and healed in four weeks; about one week after sores, he had buboes. About a week before present eruption appeared, he noticed small papular eruption all over the body; and for two weeks after had malaria, headache, and fever. He had no sore mouth or throat. He received ten injections of mercury, at the German Hospital. The glands in groin, epitrochlear, and postcervical regions were enlarged; the pains in joints and arms were worse at night.

Treatment. Six injections of serum; very little, if any improvement.

Two cases of syphilis treated in the United States Jail by Dr. W. H. Hudson, resident physician, and Dr. I. Kerfoot Shute, attending physician, are reported as follows:

CASE A.—R. W. J., aged twenty-four years, resident of Washington, D. C.; mother also born in the District; father born in Richmond, Va.; charged with destroying private property and received a six months' sentence; contracted gonorrhœa for the first time in November, 1897, at Gibraltar; was treated and cured in two months. In August, 1902, was infected again with gonorrhœa at Port Said, Egypt, and had not yet been permanently cured.

The history of the primary lesion pointed to urethral chancre; however, eruption on the skin, adenoids in the groin, and alopecia, together with the man's present appearance and condition, left no room for doubt that he was suffering from syphilis in the secondary form.

The face, as well as the body, presented a marked papular eruption; on the abdomen the eruption had become fused together, and the whole region was one sore. Appetite was very poor, sleep poor, and patient had pains in the knees, hips, and elbows; the cervical and supracondylar glands were enlarged; no nodes on the tibia; copper blotches beneath the skin; loss of weight.

He had alcohol and tobacco habits, and committed sexual excesses. He was committed June 7, 1903, and shortly after coming into the jail was put on:

℞ Mercury bichloride........................$^1/_{20}$ grain;
Potassium iodide..........................5 grains.
M. Twice daily.

whereupon, some of the symptoms subsided. This treatment was stopped on June 19, 1903.

The symptoms, as presented on the day of commencing the serum treatment, were normal temperature, pulse 72, a papular eruption, and also a spotted bronze appearance, manifested on the skin, supracondylar enlargement, and slightly enlarged glands of the neck.

An injection was given on September 22, 1903, of 10 c.c. of the serum. The site chosen for the injection was the right scapular region. Very shortly after the injection the patient felt dizzy, then the shoulder became stiff, which was followed by pain in the right side.

September 23, 1903. Still some stiffness in the shoulder; temperature, 99.8; sleep broken several times during night; pulse, 84; otherwise, no effects. The night previous patient seemed very restless; temperature, 99.2, with pains in the back and especially in the right side.

September 24, 1903. Patient was visited about 7.30 a. m.; he complained of a sleepless night, headache all night; the bowels had moved last on September 20th. Temperature, 101; pulse, 95; felt very dizzy when getting up suddenly; still had headache; a dose of salts was given; itching had left the body, but the patient still had a foul taste in the mouth.

September 29, 1903. Injection given over the middle of left scapula; dose consisted of 10 c.c. of antisyphilitic serum.

October 3rd. 11:30 a. m., injected another 10 c.c. of serum under right scapula.

October 10th. General condition good; fourth injection at 1 p. m. in left subscapular region.

October 17th. Injection given.

October 22nd. Condition good; some eruption, lasting from dose given five days before.

October 29th. 11 a. m., another 10 c.c. injection of serum. Patient was very much improved.

November 2nd. 9 a. m., general condition good; no bad effects from last dose.

November 8th. Condition still remained good.

November 13th. 10 a. m.; another 10 c.c. serum; condition good; no effects from last dose; slight urticaria still existing.

November 19th. Condition good; considerable soreness in right scapular region after last injection.

November 21st. At 10:25 a. m., injection of 10 c.c. of serum.

December 1st. Condition good; at 10:20 a. m., the twelfth injection, in the right scapular region.

December 11th. Condition good; last injection of serum.

In January, 1904, the time of this prisoner having expired, and no signs of the disease being manifest, he was released.

Case B.—H. W. W., aged thirty-one years, male, colored; about March, 1900, he noticed two small sores on prepuce; treated by a physician at Atlantic City, who diagnosticated the case as syphilis and prescribed a salve, and told him that it would take years to effect a cure; was treated there off and on for seven months.

Habits. Intemperate in drinking and in the use of tobacco. In October, 1902, the tongue and mouth were sore, but healed after several weeks. Patient commenced to have pains in the head and "felt bad all over;" took different home treatments, but finally, from pain in elbows and shoulders, could not raise hands above his head; suffered from insomnia; went to Johns Hopkins Hospital about August for treatment.

Was arrested in Pittsburgh and brought to Washington in April, 1903; had pains in limbs, headache, falling out of hair, and iritis; was on mercurial treatment for several months.

September 22nd. First injection of serum (dose, 10 c.c.).

September 29th. Injection under right scapula (10 c.c.).

October 3rd. Injection of serum under scapula.

October 10th. Condition good; no eruption; fourth injection of serum under left scapula.

October 17th. Another 10 c.c. of serum injected; patient was in excellent condition; had never had any rise of temperature.

October 20th. Had pain in head.

October 22nd. 10 c.c. of serum injected at 11.30 a. m.; condition good; some urticaria on back; had diarrhœa the night following last injection.

October 27th. 10 c.c. of serum injected in left scapular region; general condition good.

November 2nd. 10 c.c. injected in right scapular region; general condition good.

November 8th. 10 c.c. injected in left scapular region; right scapula sore for one week; general condition good.

November 13th. 10 c.c. injected in right scapular region; no effects from last dose; condition good.

November 19th. Condition good; another 10 c.c. injection.

December 1st. Condition excellent; pains entirely gone; further treatment suspended; patient cured.

Up to this time we have been dealing with the earlier accidents of syphilis; let us now consider some of the later and graver manifestations of the disease:

The next case that I shall quote is one from

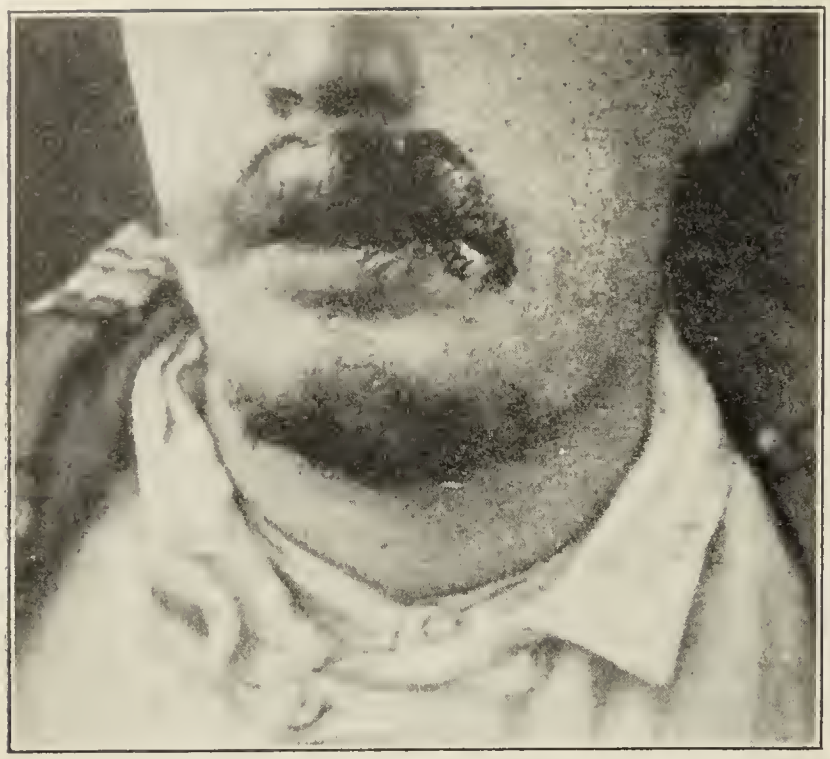


FIG. 1.—Condition on entering the hospital from the outdoor department.

Dr. Bolten Bangs's clinic, in Bellevue Hospital, treated by Dr. James Pederson. Many of the details of this case can be omitted, owing to the manifest lesions exhibited in the illustrations.

This patient came to the out-patient department of Bellevue in November, 1902, and after mercury and iodides had been pushed to the limit without effect, it was suggested that this case might be used as a test for the antisyphilitic serum, and in order that a fair test of the serum's usefulness should be made, the patient was put under daily observation, and all other medication was discontinued. The patient was taken into the hospital, and for seven days received no treatment whatever.

Preceding his entrance the patient was photographed (Fig. 1).

Only two injections of serum were given (a week apart), but the effect was satisfactory enough to cause the patient's discharge. Although not cured, he was so much improved, that it was decided that no further medication was necessary. Fig. 2 shows the marked change wrought in this case.

A patient with locomotor ataxia was treated by Dr. W. R. Blue, of Louisville, Ky. B. Y., male, United States, aged forty years; weight, 130½ pounds; occupation, lumber dealer; family history good; was at one time alcoholic; contracted syphilis eighteen years before; history of hard chancre and involvement of glands; lesions of skin and mucous membrane; ataxic symptoms developed four years previous to serum treatment.

Condition November, 1902: ataxic pains, loss of reflex, loss of coordination; thorough mercurial treatment for five years at time of syphilitic infection.

First injection of antisyphilitic serum was given November 20, 1902. On November 22nd, the patient reported that he had had many severe pains, and had lost a pound and a half in weight. At the time of the second injection, November 27th, his pains were not so troublesome, and there was a slight increase in the ability to bring his heels together, while standing with the eyes shut.

December 2nd. Patient seemed markedly improved.

December 7th to 9th. Patient's walk seemed to improve each day; has had no trouble to sleep, seven to eight hours; no pains since November 20th, save occasional flashes in feet; patient reported that he was feeling much better in every way. On December 12th, he submitted a table of the results of his daily weighing, showing an irregular but continuous increase in his weight from 128 pounds on November 23rd, to 132½ pounds on December 11th. Beginning December 3rd, injections were given ten days apart.

December 22nd. After careful examination of this case, it was a satisfaction to note that the improvement in Mr. Y.'s case was wonderful.

On January 29th, a total of eight injections had been given. Patient's weight had increased to 136 pounds; walk was good and patient declared that he felt better in every way. In January he was troubled somewhat with itching in the calves of the legs, and, beginning January 16th, the feet swelled and became cold, and ached at night.

February 7th. The patient was steadily improving.

April 30th. Treatment was suspended; Mr. Y. was apparently in as good physical condition as ever in his life; was on horseback every day, attending to his business interests.

Personal experience in the treatment of ataxics has not yielded such encouraging results as those observed by Dr. Blue; however, the cases selected were in many respects quite different in the order of duration. One patient was an ataxic of twelve years' standing, while the other had been bed ridden for about nine years. Both cases had a clear history of syphilis, contracted, respec-

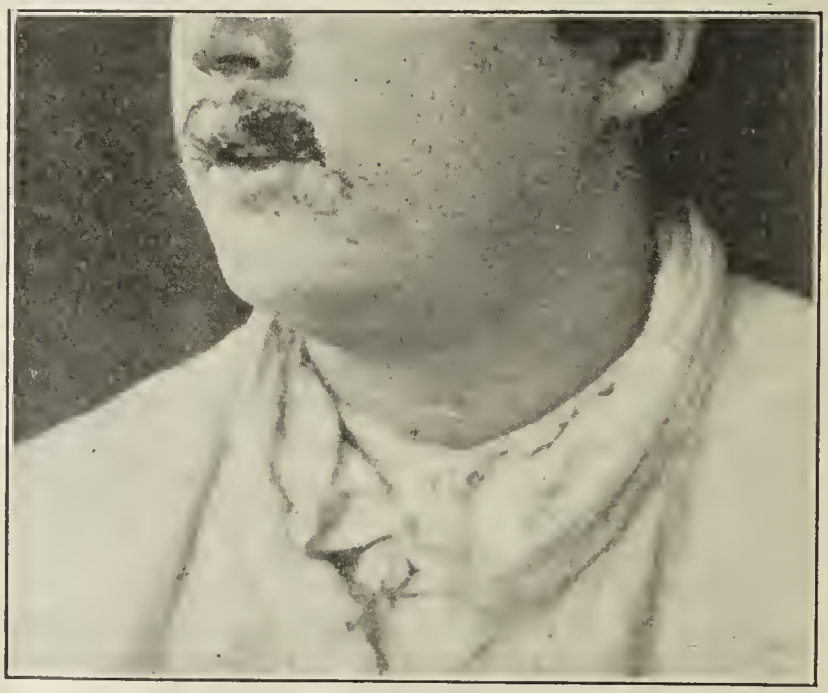


FIG. 2.—Appearance of the patient when discharged.

tively, twenty-two and twenty-four years previously, and both patients had followed a protracted mercurial treatment. Five injections of antisyphilitic serum (10 c.c.) were administered a week apart to each one of the patients, but no change could be noted. Still, another case might be classed under this heading, that did prove more encouraging:

Mr. C., broker, aged fifty-nine years, contracted syphilis twenty-five years ago. About 1897, four ulcers, presumably trophic, appeared, two upon the sole of each foot, and, in spite of all internal and external treatment, persisted for years. Over a year ago, symptoms of ataxia began to manifest themselves. Loss of reflex was first noticed, and this was soon followed by a few lightning pains and slight incoordination.

On December 30, 1903, treatment was begun by an injection of 10 c.c. of the antisyphilitic serum.

January 3, 1904. The patient fell and broke his leg, which accident confined him to his bed for four weeks, and to the house for two weeks longer. During all this time, injections of the serum were regularly made every seven days. At the end of four weeks the ulcers had completely healed, and the pains had subsided.

For six months this patient has been up and attending to his usual business; there has been no recurrence of pains, no disposition toward a breaking down of the skin of the feet preceding a reformation of ulcers, and, what is still more remarkable, there seems to be a slight return of patellar reflex.

Many circumstances in this case have contributed to the favorable issue. First, the ataxia was in its incipiency; second, the patient's recumbent position in bed, caused by his accident; lastly, his excellent health and good habits were important factors that must not be ignored in the account of the case.

500 Fifth Avenue.

Ladies' Auxiliary for Free Hospital for Poor Consumptives Formed.—On December 8th, an auxiliary of the Free Hospital for Poor Consumptives was organized by about fifty prominent club women. The object of the auxiliary is at present to assist in collecting funds for three new buildings; one at White Haven for cases not incipient, but yet not hopeless; a second in the nature of a farm for convalescents; and a third in Philadelphia for moribund cases. Dr. Lawrence F. Flick made an address. The following officers were elected: Chairman, Mrs. William M. Kerr; first vice-chairman, Mrs. Talcot Williams; second vice-chairman, Mrs. M. Ravenel; secretary, Mrs. C. J. Hatfield; treasurer, Mrs. William M. Lybrand. Among those who joined the auxiliary were Mrs. J. Sparhawk Jones, Miss Tucker, Mrs. James Speer, Mrs. Elliot, Miss Benson, Miss Muir, Miss Ellis, Miss Leidy, Miss Keating, Mrs. Austin, Miss Austin, Mrs. C. E. Morris, Mrs. M. M. Arnold, Mrs. C. A. Steele, Mrs. Fetterolf, Mrs. C. Y. White, and Mrs. D. Edsall.

THE PLASMŒBA OF DENGUE; A BRIEF DESCRIPTION OF THE EARLIEST PHASES OF ITS PLASMIC CHARACTERISTICS.

By H. A. Eberle, M. D.,
GREENSBORO, S. C.,
CAPTAIN AND ASSISTANT SURGEON, UNITED STATES VOLUNTEERS.

The island of the Sulu, or Jolo, one of the Philippine group, lies between the sixth and seventh degrees north latitude; about seven hundred miles south of Manila. It is thirty-six miles long and about sixteen miles wide.

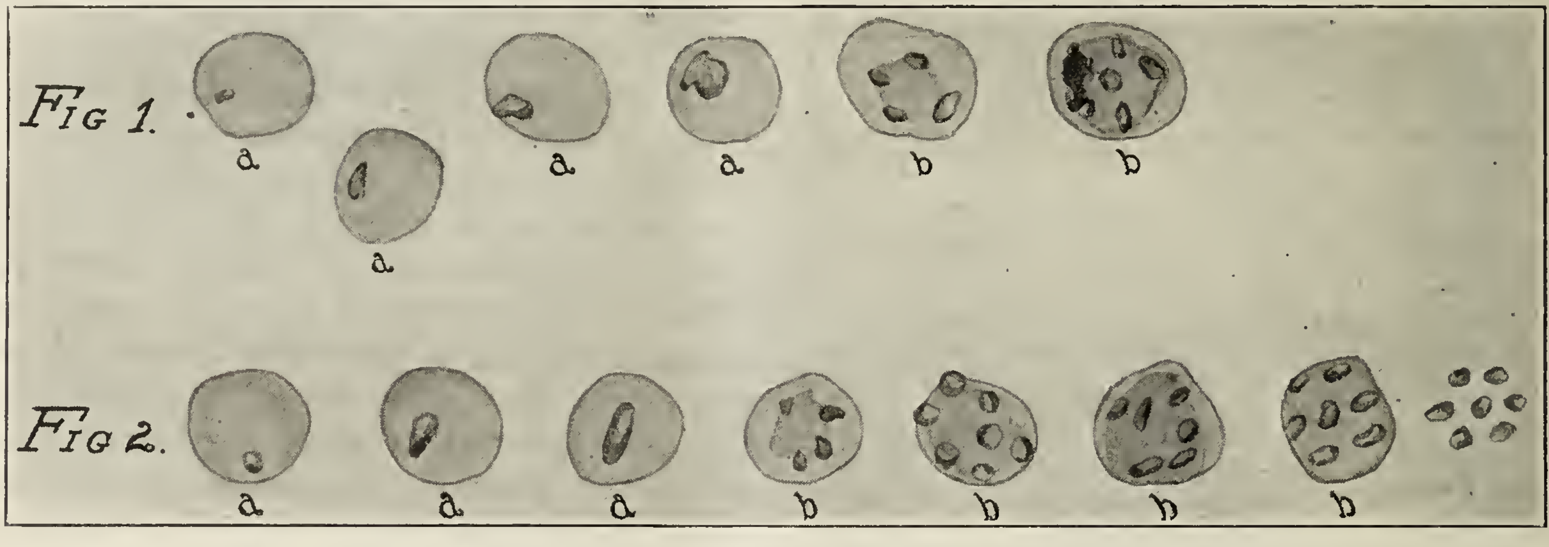
The inhabitants are principally Moros, over whom reigns a sultan. The chief occupation of these Moros is fishing and for that purpose they live near the water, mostly upon the water, and frequently under the water, especially when pearl fishing. They are considered to be a hardy race, owing, no doubt, to their simple mode of living almost outdoors, and to an exclusive diet of fish, fruit, and vegetables, as they abstain from stimulants and meats. From the best sources of information I have learned that these people are not prone to attacks from the almost prevailing endemic and sometimes epidemic dengue which sweeps the American colony.

The walled city of Jolo was built by Señor Arolas, the Spanish governor, whose frequent "scraps" with the Moros gave him many prisoners, and to this captain general and his Moro prisoners we are indebted for the most beautiful little city in all the Philippine archipelago.

But while the Spanish governor had an artistic brain in laying out a city with paved avenues, bordered on either side with fragrant tropical trees, the Y'llang-Y'llang predominating, with open and cemented sewers and many public and private gardens, with fountains, grottoes, and fragrant tropical plants, his honor, instead of choosing a beautiful plateau at the foot of a range of sublimely grand and picturesque mountains, with superb natural drainage, built his city principally upon the tidal mud flats. The governor may be excused if desire for his safety impelled him to encroach as little as possible upon the territory of the savage Moro.

In consequence of his selection, the city is only from two to five feet above the sea level, according to ebb or flood tide. Naturally we should conclude that the location would be extremely unhealthful, but such is not the case generally, except during the summer and early autumn months, when dengue is most prevalent.

The prevalence of this disease in Jolo may be accounted for, first, in consequence of certain toxines which arise from the porous ground, used in covering the mud flats, on which are built the barracks and living quarters of the post, or, secondly, from one of the Culex variety of mosquitoes, *Culex fatigans,* which is found to propagate in the sulci of the cocoanut tree, and in every knothole capable of holding moisture. From one knothole containing about four ounces of water and débris, the writer developed over five hundred culices fatigantes. Upon examining this variety of mosquito, blood fed on acute dengue cases, the microscope revealed the plasmœbic organism, and the writer suspects from these and other investigations, that culex fatigans is the transmitter of the disease.



FIGS. 1 and 2.—*a, a, a, a,* Impregnated corpuscles; *b, b,* The growing parasite, in which early sporulation appears; *c,* Mature spores after escaping from the limiting membrane of the corpuscle.

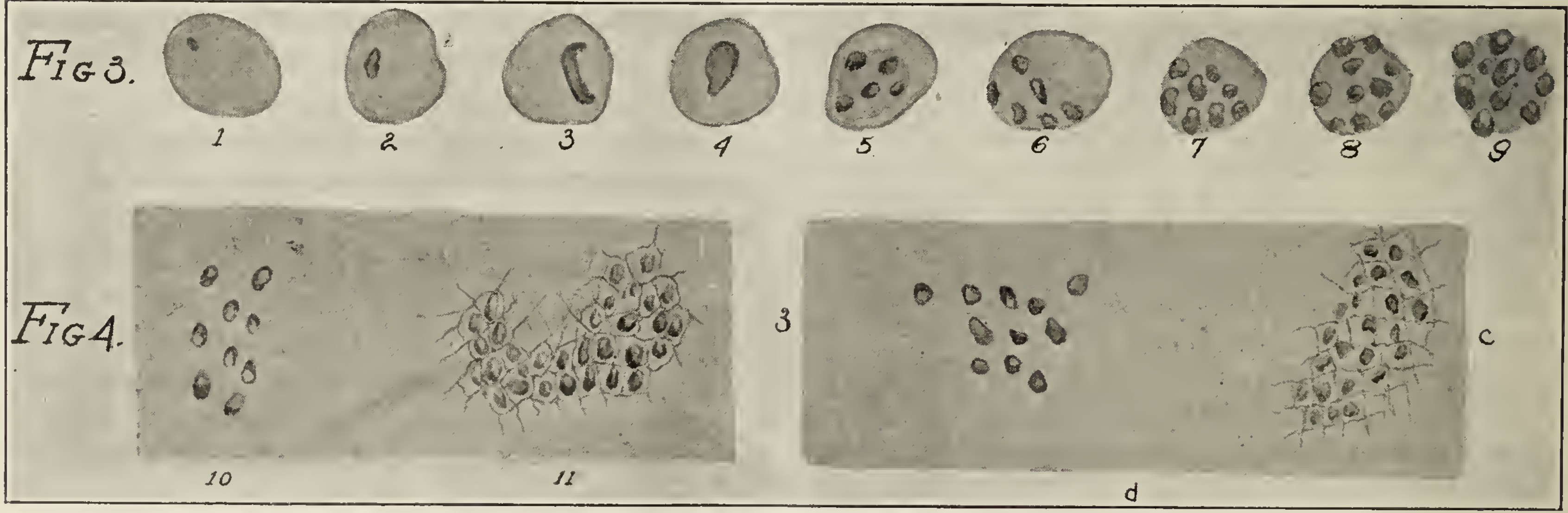


FIG. 4.—10, Mature parasites; 11, Phagocytes inclosing in their meshes myriads of dengue organisms.

During the summer months beginning about May 15, 1902, and ending about December 15th, an epidemic of dengue visited the city, attacking the soldiers and American residents principally.

The epidemic, however, spared neither race nor sex, for the Filipinos, Chinos, Malays, and Moros were afflicted to some extent, though less so than the Americans.

From what could be learned from the antecedent history of the natives and inhabitants of the islands, it appears that dengue is nearly always endemic.

Most noticeable during the course of the disease, was the peculiar type of fever, or temperature curve, differing from any of the malarial types. During the prodromal stage, which was short, there was pain in the loin and legs, with headache, the temperature gradually rising to 102° and 104° F., frequently not preceded by a chill; at most there might be chilliness. Often an attack of vertigo, or extreme dizziness, would usher in the disease.

During the drill hour or other fatigue duty, a soldier would fall out of the ranks, and probably fall to the ground from a severe attack of vertigo; on being brought into the hospital and a blood examination made, it would be found that the specific germ of dengue existed in the plasma.

By referring to the temperature charts, the peculiar fever curve can be seen. It approaches nearly a double tertian æstivoautumnal malarial fever of a remittent type. My attention was attracted to the peculiar rose colored rash which made its appearance from the fifth to the seventh day of the disease, and to the entire unresponsiveness of the fever to large dose of quinine.

The only medical literature upon the subject of dengue available at this post was the admirable work of Sir Patrick Manson, C. M. G., M. D., LL. D.,

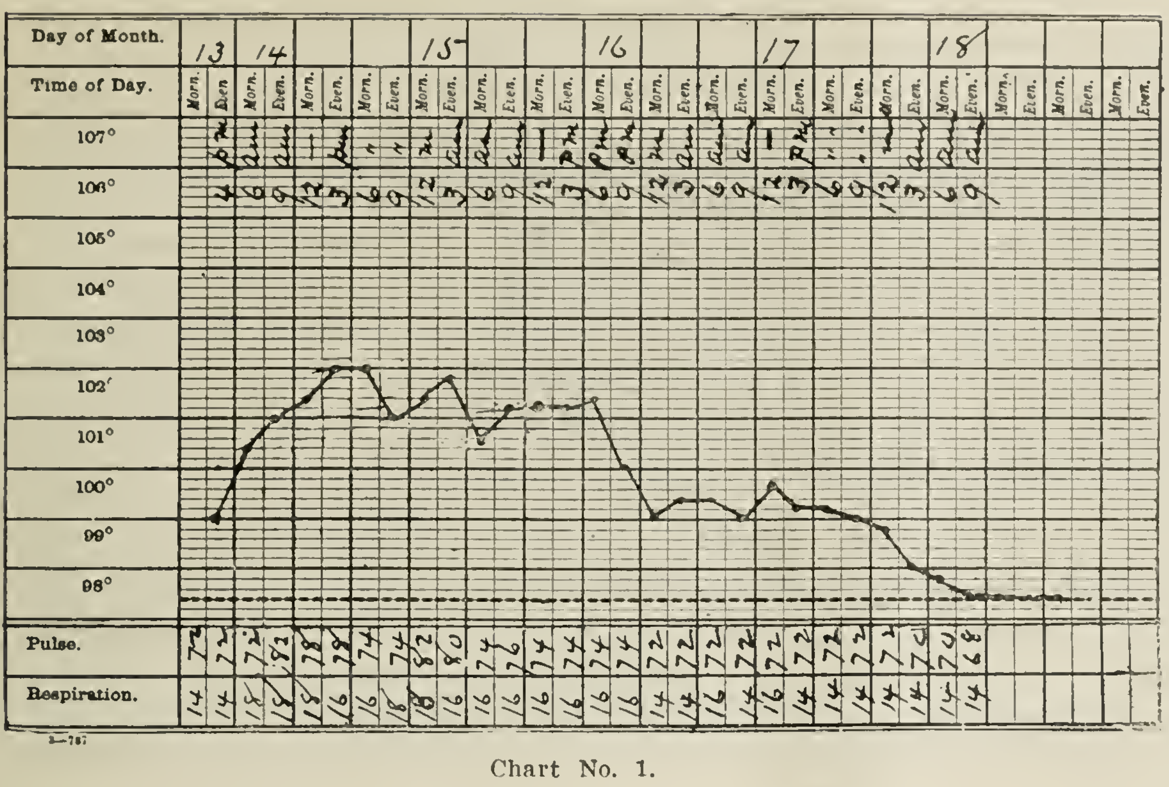


Chart No. 1.

Tropical Diseases, in which, on page 195, he states concerning the ætiology, "nothing is known as to the virus of this disease."

About June 1st the writer began to study fresh blood specimens through a Bausch and Lomb twelfth inch objective.

The minutest details of cleanliness were observed. The pad of the finger was chosen, and carefully cleansed with soap and water, dried, then rubbed with pure alcohol, and again dried with a sterilized piece of gauze. The needle was sterilized, and the slides and cover slips, previously washed in equal parts of ammonia and alcohol, then in pure alcohol, were dried with a soft silk handkerchief and protected with a glass cover. The first drop of blood was wiped away with a piece of sterilized gauze, dampened in alcohol, then dried, and a cover glass was ready to touch the minute droplet of blood which would appear on squeezing the finger. This was quickly placed on the glass slide, and sealed with Canada balsam or ringed with vaseline. Two to four slides would be thus prepared and made ready for examination. Very many observations were made and studied before the results were transferred in drawings to paper.

Comparisons were made between the blood of patients suffering from quotidian and tertian types of æstivoautumnal malarial fever, and that from healthy individuals. In many slides where the blood corpuscles were evenly spread out, small and almost imperceptible motile parasites could be seen dancing and gyrating in the plasma. It was noticed, especially when early examinations could be made, that this little motile parasite had the power of attaching itself to the border of a red corpuscle, apparently boring its way into it and clinging to it; and, although the corpuscles shifted freely in the plasma and bumped against other corpuscles, the minute organism would not disengage itself. An occasional motile body would enter the limiting membrane of the corpuscle and become confined in its enclosure, where it could be studied at pleasure. In the corpuscles, after being stung or impregnated by this motile parasite, there would appear a faintly tinted growth of a pale violet color, which in one or two hours would cover one fourth to one half of the surface of the corpuscle; assuming every variety of shape; throwing out pseudopodia in which would appear, after several hours, faint, dark bodies on a deep focus, or paler bodies on a light focus, numbering from six to ten, according to the age of the growth.

These dark bodies were the early sporulating bodies, which after aging would appear with definite outline and a pale bluish centre. These violet colored growths were motile and on further development became more active, propelling the corpuscle through the plasma and giving it the appearance of being full of life. No "daisy" arrangement of spores could be made out, but they were scattered

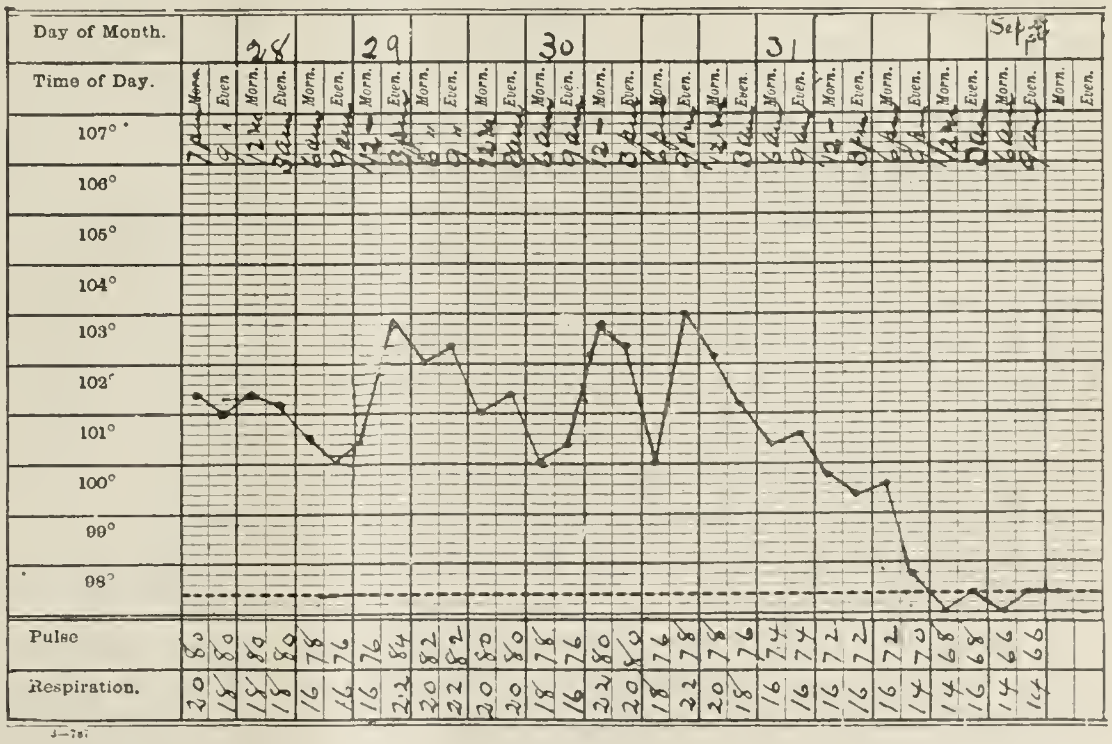


Chart No. 2.

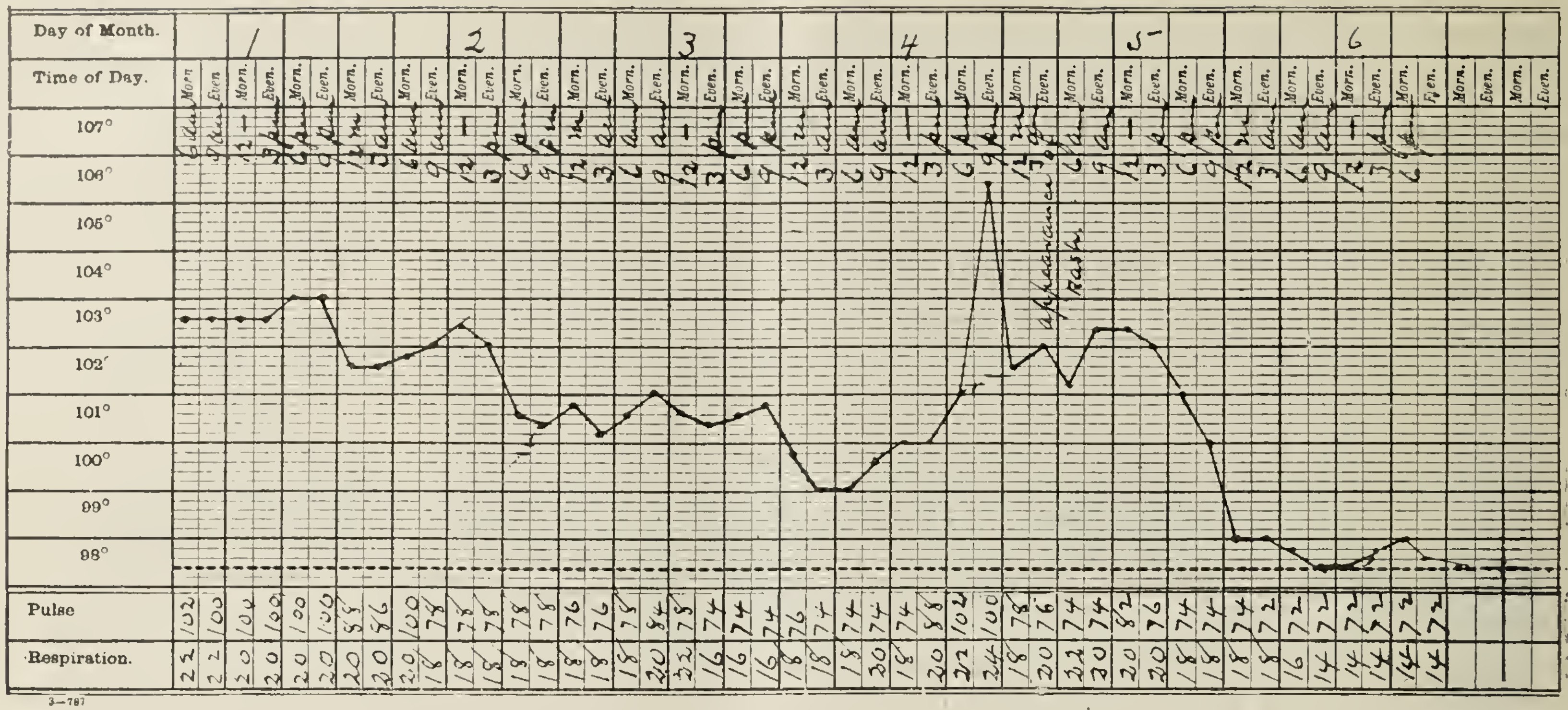


Chart No. 3.

irregularly like a plate of fruit over the surface of the corpuscles.

After being fully developed, these spores appeared not only to fill the corpuscles, but the outline of the corpuscles would become disintegrated and lose its contour, giving freedom to the enclosed spores. In all the specimens examined there could not be detected any pigment or melanin particles, as in tertian malarial fever. In no stage of the disease was there an absence of the active parasites from the plasma. They were most numerous, however, in the phagocytic stage, and were found especially in the meshes of those scavengers of the blood. As long as the high temperature lasted, which was usually from five to seven days before reaching normal, daily examinations would disclose the active parasite as well as the sporulating and segmenting bodies.

The cycle appeared to be less than twenty hours. Crescents were not discernible throughout the entire course of the disease. In many specimens the active parasite, instead of appearing as a single pale blue hyaline body with a definite outline, occasionally would be linked together with others in a chain of two or three, having the same characteristics as the single parasite. Sometimes four to six would clump together and move freely in the plasma. During the later stages of the fever there were found many phagocytes and leucocytes and many of them literally swarmed with the minute organism of dengue.[1] These scavengers (phagocytes and leucocytes) policed the plasma and destroyed both the active and passive parasites, as well as other degenerated corpuscles.

In the plates and drawings accompanying this report may be seen reproductions of phagocytes alive with myriads of motile dengue germs.

In searching for these germs, the microscopist should take every precaution to observe absolute cleanliness in the preparation of his fresh blood specimens. If taken early in the morning the stage of the microscope should be warmed. A good plan to prevent crenation, is to prepare the slides and seal the cover slips with Canada balsam at once without exposure to the air; then lay them aside under a glass cover from two to four hours. The activity of the germs will be increased, and sporulation will proceed in the same manner as in subsequent fresh blood specimens. The active plasmœbæ have been noticed one hundred hours after sealing the slides in this way. The phases of the dengue parasite bear a close resemblance to the phases of the life cycle of the benign tertian parasite in man.

The secondary changes in the corpuscles, after becoming infected by the parasite, were shown in a pale growth or disc like body, assuming sometimes an oval and sometimes an oblong irregular outline without pigment granules, gradually spreading and growing, often throwing out pseudopodia until the growth completely filled the corpuscles; the pseudopodia reaching beyond the border of the corpuscles and giving them the appearance of being crenated. This growth would be actively motile. In a few hours spores would form in the body, the podia of the growth numbering from six to ten. These would mature after a few hours, segment, burst out of the cell wall, and float freely in the plasma.

These mature spores have a definite outline with a centre of pale protoplasm. Many of these little bodies after segmenting become active germs ready to attack and impregnate a healthy blood corpuscle and reenter upon a new cycle, unless devoured by the phagocytes. The greater number of these newly

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[1] See Charts 1 and 2.

fledged segmenting bodies are passive and are likewise destroyed by the phagocytes and leucocytes, the drag nets of the plasma.

Dengue is not the innocent disease which authors assert it to be. It is important that the disease receive careful treatment. An early return to duty before convalescence is fully established may lay the foundation for chronic invalidism. Serious cachexias and impairment of nutrition frequently follow dengue cases. Loss of service, and great expense in sending officers and men to the United States from the Philippines have resulted from the tendency of the disease to relapse, become chronic, and disqualify sufferers for duty. Fatal results have occurred in two cases out of the four hundred under observation as a complication of dysentery. The efficiency of the service will be subserved by a better understanding among the army surgeons of the pathological importance of dengue.

Frequently, after the active symptoms had subsided, the temperature had returned to normal, the tongue was clean, and the patient hungry, expressing a desire to return to duty, he would reenter the hospital with a slight headache and feverishness. During the next few hours a rose colored rash would appear on his face and neck, soon extending to his body, arms, and legs, accompanied by suffusion of the eyes. This eruption was rose colored, confluent, punctiform, often complicated with sudamina, and accompanied with slight itching. During the next two or three days the rash would slowly disappear by desquamation.

Histologically, the parasite of dengue properly belongs to the class Sporozoa, and since it is found first in the plasma of the blood, the writer has given it the generic name Plasmœba. This plasmœba, primarily found in the liquor sanguinis, impregnates the corpuscles, producing a pale, violet tinted growth assuming various shapes as it increases in size, and in which can be noticed, after two to four hours, faintly darker bodies, the earliest spore formations which occupy usually from two thirds of to the entire corpuscle. On many occasions, when the spores form in the pseudopodia, they give the corpuscles the appearance of being crenated, but in fact they are merely projections beyond the border of the corpuscle pushing out the elastic limiting membrane of the cell. These spores mature in the course of a few hours and are characterized by a definite outline inclosing a pale protoplasm without nucleus or nucleolus. These matured spores are highly refractive and finally burst through the limiting membrane of the corpuscle and are poured out into the plasma (the greater number, however, being passive) and ready to enter on a new cycle.

The dengue plasmœbic organism is smaller and much more active than the amœba in malarial blood. In fact, it is a most elusive and difficult germ to find, and requires great patience on the part of the investigator. Its motion is so swift, appearing and disappearing as it does so rapidly, that when shown to a microscopist he often fails to see it. If encountered by accident, one must familiarize oneself with its appearance and study its morphological characteristics. I have endeavored to show the organism to many surgeons without success; others, more familiar with the microscope, have seen them singly, linked together, moving rapidly in the plasma, and swarming in the phagocytes. The secondary changes in the corpuscles are unlike those of any of the malarial types. No pigment, even in the finest granules or dust, has ever been seen in the growth of the parasite. Crescents or flagella have not been noticed, although serial examinations were made daily until convalescence was established. There is no enlargement of the spleen or liver. Oligocythæmia and anæmia frequently occur, especially if the disease becomes chronic, which it sometimes does. The disease is sometimes associated with æstivoautumnal types, but the parasites are easily distinguished. The plasmœba can be found in fresh blood specimens during every day of the disease, and in the same specimens sporulation and segmentation go on continuously. This fact accounts for the peculiar temperature curve which is here described and is of diagnostic value.

THE TEMPERATURE CURVE OF DENGUE.

The fever never rises sharply. There is a gradual rise of fever, seldom preceded by chill or chilliness. After the initial fever has set in, the course is not marked by distinct remissions. There may be an unnoticeable and gradual rise of temperature, which frequently the patient thinks nothing about for two or three days, or there may be vertigo, dizziness, and nausea which send the patient into the hospital, when after investigation it is found that the patient has had a slight fever for several days. The writer has been called to see patients at the time of the appearance of the rash, but a history would reveal that fever and pain in the back, head, and legs had existed several days. When the height of the fever is reached by vacillating stages ranging from 102° to 104.5° F., attaining its fastigium in about forty-eight hours, there occurs a gradual vacillating remission of a degree or more during the early hours of the morning. During the middle and after part of the day a slight rise will be noticed, but the fever seldom attains the same height as at the end of the first forty-eight hours. The temperature goes along in this manner, declining each day until normal. There is seldom any sharp crisis throughout the entire course. It happened on one occasion that a critical rise to 106.2° F. occurred preceding the appearance of the rash. This does not often happen. When uncomplicated cases occur, the temperature becomes normal on the sixth or seventh day.

Quinine has no effect in cutting short the disease, neither has it any effect in lowering the temperature. Only in complicated cases would its administration be recommended and then it should be combined with other antipyretics. Convalescence is established about the same time, with or without medicine.

The minute dengue organisms stain beautifully in weak eosin solutions and methylene blue. Without first being familiar with the histological and morphological characteristics of these bodies in fresh blood specimens, stained specimens would be of little help to the bacteriologist. The foregoing investigations were made during the months of June, July, August, and September, 1902.

Subsequent researches have confirmed the facts as set forth in my earlier reports to the surgeon general of the United States Army.

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Flushing Hospital, Queens Borough.—The annual meeting of the Flushing Hospital and Dispensary Corporation was held on November 9th, and the vacancy made in the board of trustees by the expiration of the term of office of five trustees were filled. A feature of the meeting was the reading of the annual report of the board of trustees which indicated that they had been exceedingly active during the past year, and had succeeded in installing a number of much needed improvements to the hospital. At the last monthly meeting of the board, Professor Clark said the legal name of the hospital was very cumbersome, and owing to changes in the municipal condition, was now in a measure unmeaning. The name was the Hospital and Dispensary of the Town of Flushing. The town of Flushing no longer exists. The trustees prepared an amendment to the by laws to have the name changed to the Flushing Hospital and Dispensary. The members of the corporation voted in favor of the amendment. Another amendment to be approved at the same meeting was that the board of trustees should consist not only of residents of the old town of Flushing, but also of residents of other sections of the north shore of Queens Borough. The Training School for Nurses now offers a course of two and a half years, three months of which are spent at the Eye and Ear Infirmary in Manhattan. It is proposed to lengthen the time to three years that the nurses may also have the opportunity of spending three months at the hospital for scarlet fever and diphtheria patients. The school is under the direction of the superintendent, who also has regular classes in anatomy, materia medica, special diseases, obstetrics, nursing, and practical work in bandaging, etc. A few lectures are delivered by members of the medical staff.

THE REMOVAL OF INTERNAL HÆMORRHOIDS BY EXCISION.

By ERNEST LAPLACE, M. D.,

PHILADELPHIA,

PROFESSOR OF SURGERY, MEDICO-CHIRURGICAL COLLEGE.

The patient is prepared as usual; is placed on the left side, with the thighs flexed upon the abdomen. The sphincter ani is dilated, by stretching with both thumbs. The hæmorrhoidal area is brought into view by clamping with forceps (preferably Kocher's) each hæmorrhoid at its upper and lower extremity, parallel with the course of the rectum (Fig. 1).

The upper forceps being held in the left hand and drawn, the hæmorrhoid is cut immediately above the upper forceps, with curved scissors, just enough to allow the cut to be closed by the immediate insertion of a continuous suture (Fig. 2). This suture consists of No. 2 cumolized plain catgut, on a medium sized curved Hagedorn needle (Fig. 3).

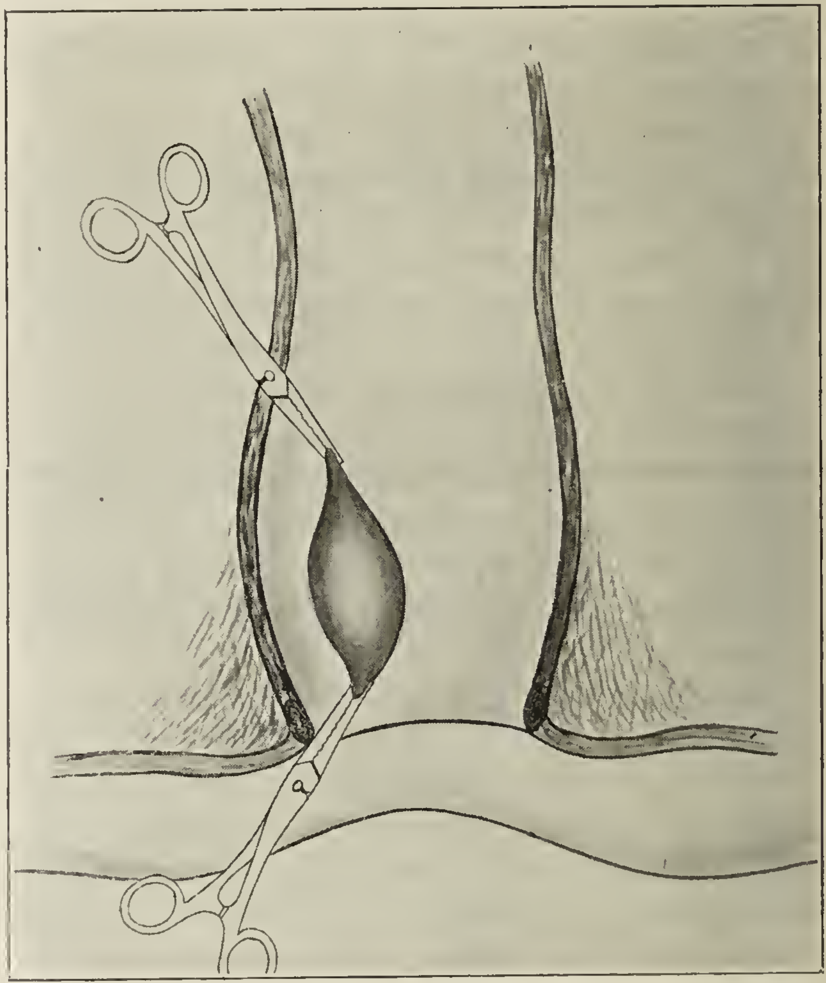

Fig. 1.—Each hæmorrhoid is clamped above and below with forceps.

This first cut being closed, the hæmorrhoid is again cut a little, and the wound is closed by the same continuous stitch, and so the procedure is repeated until the hæmorrhoid is removed (Fig. 4), when the suture is finally tied. Should any hæmorrhage occur, a whipped suture is applied locally, and controls it. The result of the operation is a linear cut, securely sutured (Fig. 5).

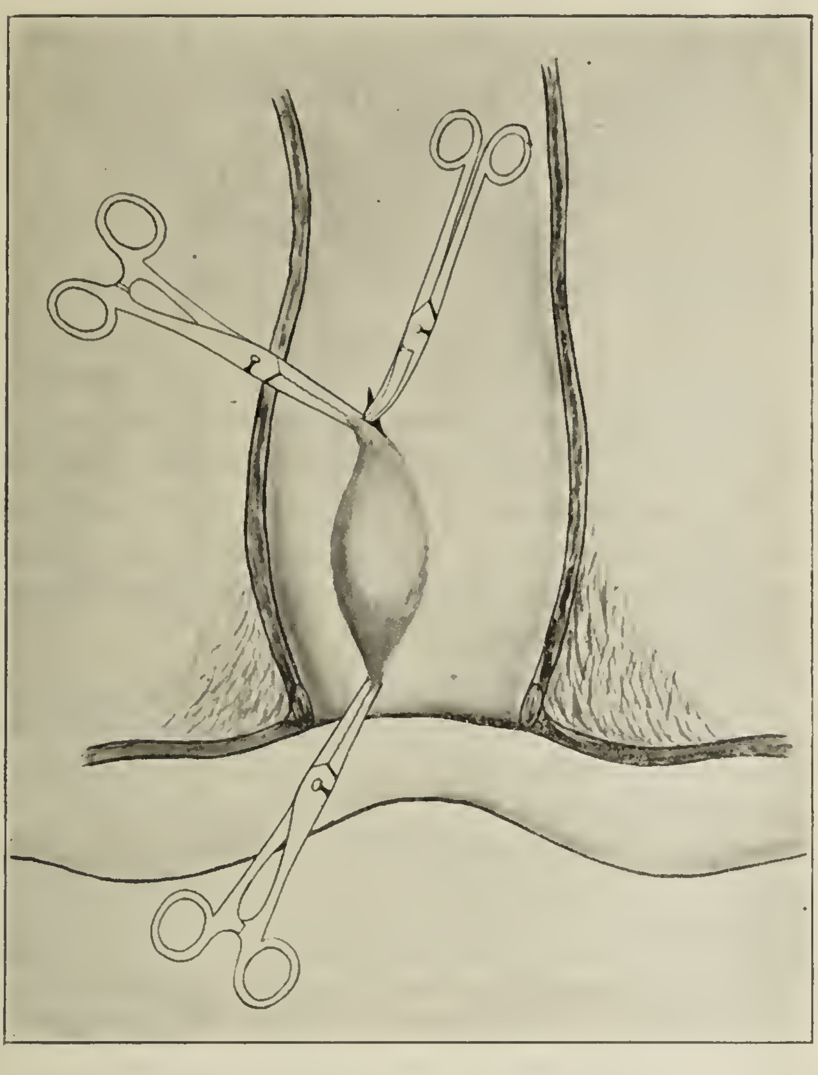

Fig. 2.—A small cut is made with curved scissors.

Each hæmorrhoid is dealt with in this way, until sufficient of the hæmorrhoidal area is removed. The danger from hæmorrhage and sepsis is reduced to a minimum. The catgut drops away in due time. Pain is rarely present, and occurs when the sutures have been applied too deeply. Delicate longitudinal scars are formed corresponding to each hæmorrhoid that has been removed.

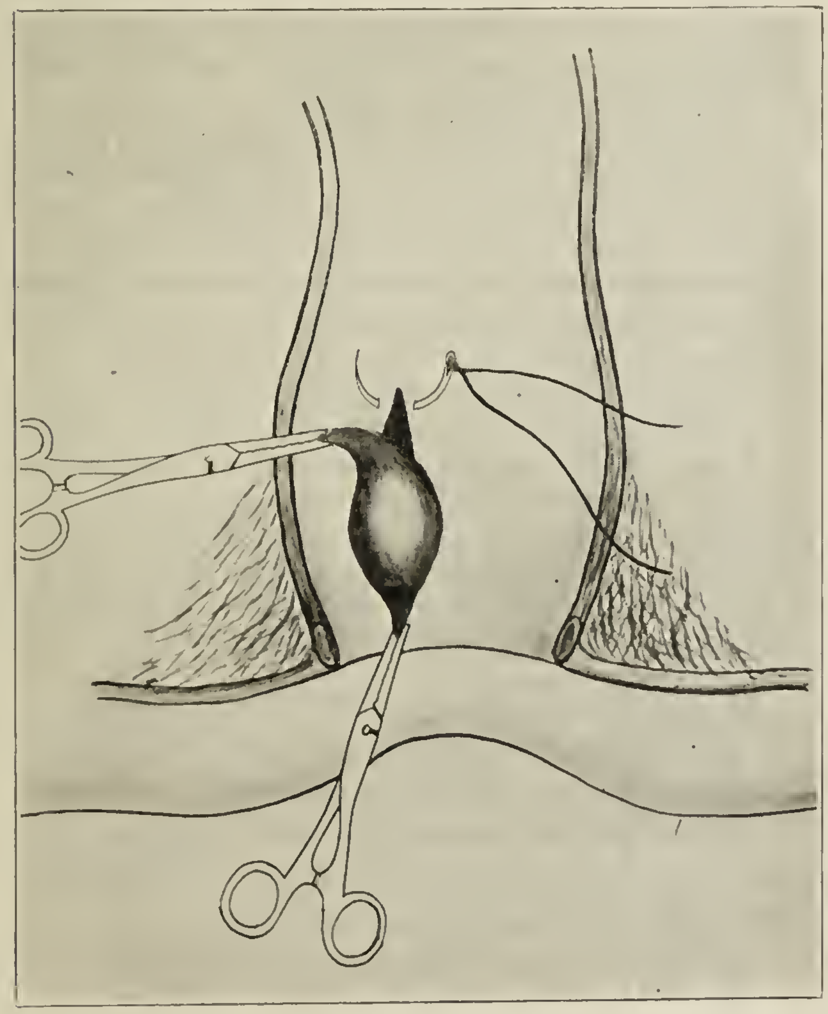

Fig. 3.—This cut is immediately sewed with a curved Hagedorn needle, armed with a No. 2 plain cumolized catgut suture.

The advantages of the method are precision, absence of hæmorrhage during or after the operation, safety, and simplicity. The operation is in accord with the methods of modern surgery. I have performed it eighty-three times in the last four years without any complication in any case.

It was first used on an extreme case of internal hæmorrhoids, where hæmorrhage had caused great anæmia. The thermocautery, which I had always used for preference, I felt would not safely unite these weakened tissues. Six large hæmorrhoids were removed, union taking place by first intention. I have since used the method in every case, with uniform satisfaction. The absolute security from hæmorrhage and freedom from pain has enabled me to allow patients to leave the hospital within a very few days. They are cautioned to keep the bowels locked, with a half grain opium pill twice a day for two days. On the sixth day an enema is given and the patient is ready, as a rule, to be discharged. No dressing is applied, except a pad externally. Sometimes I use an ointment, consisting of

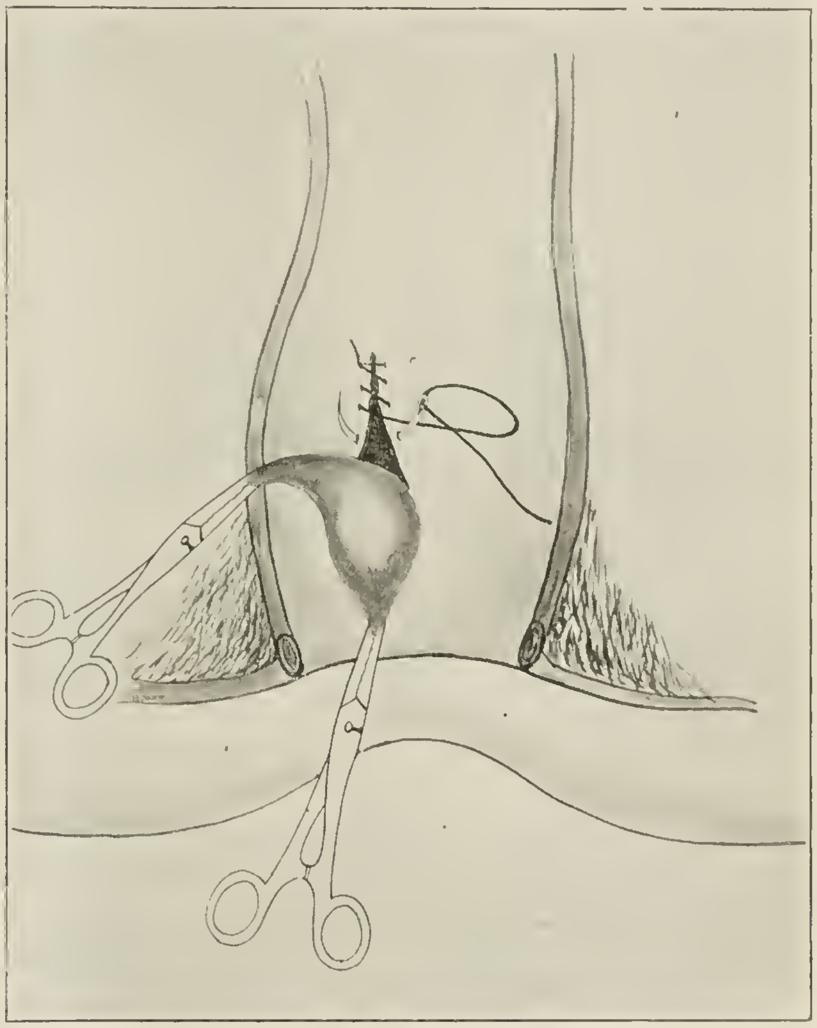

Fig. 4.—As the hæmorrhoid is cut again the parts are progressively sewed by a continuous suture.

℞ Atropine sulphate	1 grain;
Tincture of iron chloride	30 drops;
Petrolatum	1 ounce.

M. For an ointment.

This operation may justly be considered as a modification of the Whitehead operation of removing in a circular fashion the hæmorrhoidal area. The hæmorrhage attending the Whitehead operation, its difficulty, and the subsequent circular scar, which sometimes has resulted in a stricture of the rectum, will be found wanting in the operation as I present it.

Here the operation is easy of performance; there is practically no hæmorrhage, the resulting scar or scars are longitudinal. Should these contract, the calibre of the rectum would not be narrowed, and stricture would be impossible. With these advantages, the operation deserves a trial by those who know the dangers and difficulties that may attend other methods of operating on internal hæmorrhoids.

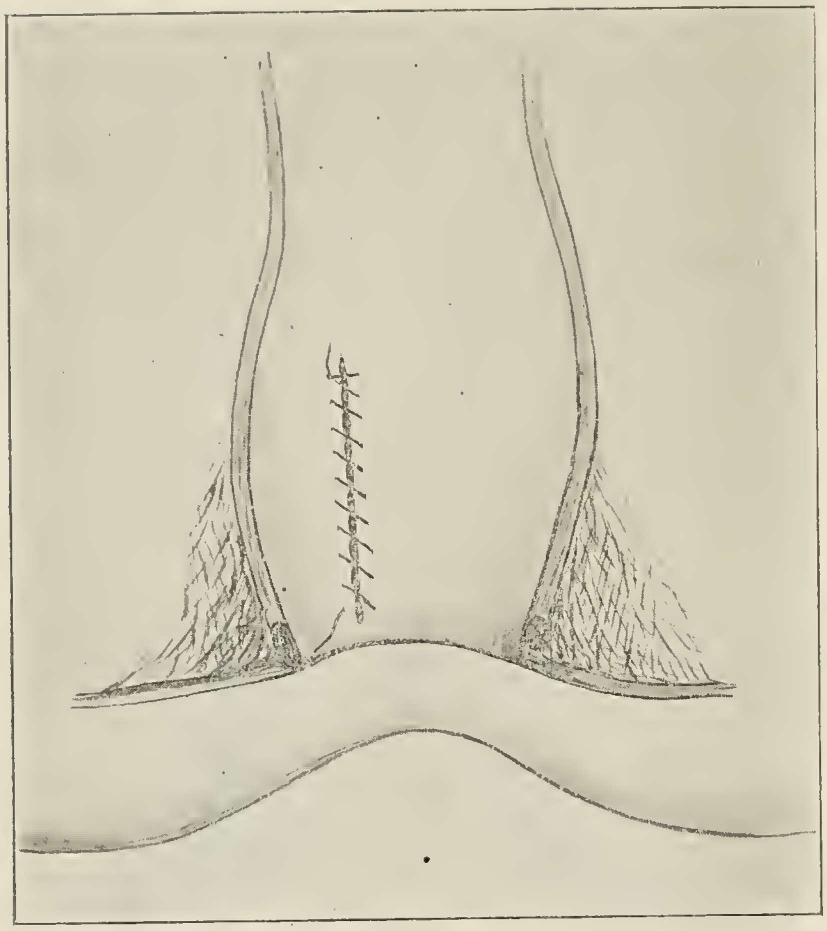

Fig. 5.—The completed operation, with linear result.

1828 South Rittenhouse Square.

Prince George's County, Md., Medical Association.—At a meeting of the Prince George's County Medical Association held in Washington on December 8th, the following officer were elected and will be installed at the January meeting: Dr. Lewis A. Griffith, of Upper Marlboro, president; Dr. W. O. Eversfield, of College Park, vice-president; Dr. W. H. Gibbons, of Croom, and Dr. E. O. Etienne, of Berwyn, secretaries. Board of Censors: Dr. Charles A. Fox, of Beltsville; Dr. V. L. Perry, of Hyattsville, and Dr. N. A. Ryon, of Bowie. The association adopted the new constitution and by-laws as recommended by the American Medical Association for the government of county organizations.

AN ATTACHMENT TO BENNETT'S INHALER FOR PHARYNGEAL (CRILE'S METHOD) AND TRACHEAL ADMINISTRATION, AND FOR THE ETHYL CHLORIDE-ETHER SEQUENCE.

By VICTOR C. PEDERSEN, A. M., M. D.,

NEW YORK,

ANÆSTHETIST TO THE ROOSEVELT HOSPITAL; ANÆSTHETIST AND INSTRUCTOR IN ANÆSTHESIA AT THE NEW YORK POLYCLINIC AND MEDICAL SCHOOL AND HOSPITAL.

In the *Annals of Surgery*, for June, 1903, Dr. George W. Crile brought out his pharyngeal method of administering anæsthetics, literally describing it as follows:

"Tubage of the Pharynx for Facilitating the Administration of Anæsthetics and Preventing the Inhalation of Blood in Certain Operations on the Mouth and Face.

"In operations within the mouth, on the jaws, and on the nose, two distinct difficulties are encountered: the prevention of the inhalation of blood, and an even administration of the anæsthetic, without encroaching upon the field of operation. For about a year the following method intended to obviate both difficulties has been employed: 1. The patient is reduced to full surgical anæsthesia. 2. The pharynx is cocainized. 3. Two drain tubes as large as possible are passed through the nares to the level of the epiglottis; the tubes are then severed at an equal distance from the nose. 4. The mouth is well opened and the tongue drawn out. 5. The entire pharynx is then packed with rather large pieces of gauze. 6. If thoroughly done, the base of the tongue is carried well forward, and an air chamber with which the rubber tubes and the larynx communicate is thereby formed.

"The anæsthetic is administered entirely away from the field of operation. The patient may be placed in the position most advantageous for the operative technique regardless of the blood. In operations upon the tongue, the pressure against the base is sufficient to control most of the hæmorrhage until the lingual arteries are severed. In cleft palate operations not only is there no spraying of blood and mucus, but the field of operation is kept much cleaner. The mucus that usually forms in the throat is absorbed by the gauze. The anæsthetic may be as evenly administered as in operations upon other parts of the body. A funnel may be attached for still further facilitating the administration of the anæsthetic."

In the hands of the author the following details of technique, enhance the efficiency and convenience of this admirable method:

1. The patient should be evenly and deeply under the anæsthetic for at least five minutes before the tubes and packing are inserted.

2. The nose and upper part of the larynx, especially about the rima glottidis, should be co-

cainized, thus shrinking the nasal mucosa and permitting the more ready insertion of full size tubes, and likewise thus reducing irritability of the glottis when the packing is inserted. In order to reduce the total quantity of fluid used, a four per cent. solution is the best.

3. An assortment of rubber tubes, about 2 feet long, is necessary, because the two nares differ so widely in capacity. The writer therefore carries with him two each of the following sizes: ¼, $^{5}/_{16}$, and ⅜ inch bore. A thread is stitched Lembert-wise through the wall 7 inches from the tip, which is the approximate average distance from the anterior nostrils to the arytænoid cartilages. This thread is a convenient index for the insertion of the tube. The tubes should reach just below the level of the epiglottis in order to clear the packing and just above the arytænoids in order not to irritate the larynx. The finger is the best means of settling the proper level of insertion. It is passed over the epiglottis and should feel the tube ends just above the arytænoids. A nasal dilator is an aid to passing the tubes, and should be included among the instruments carried by the anæsthetist.

4. The tongue should be depressed at the base as well as drawn forward. For this purpose a tongue depressor is indispensable.

5. The packing should consist of a *single* long strip of *absorbent* gauze, three inches wide, with the raw edges turned in. Its insertion should be so carried out that both cut ends present in the mouth to facilitate instant removal. The pressure points are, *above*, the hard palate (carrying the soft palate upward and backward against the tubes, except in complete cleft palate, when the uvula and velum should be in front of the gauze), *below*, the base of the tongue in front of the epiglottis and, *at the sides*, the lateral pharyngeal regions, taking advantage of the tonsils if these are not to be operated upon. Pressure backward against the tubes should be avoided as far as possible, in order to leave them movable and under the control of the anæsthetist.

6. The anæsthetist should sit where he may follow all the signs of the anæsthesia. The best position therefore is at the head of the table. The neck should be in full view, so that œsophageal movements may be noted; because these usually indicate approaching vomiting and therefore give warning to clear the pharynx instantly. A free dose of morphine with atropine an hour before the operation is an essential in order to control reflexes, salivation, or bronchorrhœa and to reduce the quantity of the anæsthetic required. The degree of anæsthesia should be full and deep to limits of entire safety to the patient.

7. The funnel spoken of by Crile should be combined with a Y tube to receive the two nasal rubber tubes. It will work well, but requires the caution of constant maintenance below the level of the patient's head lest an excess of anæsthetic run down the tubes into the throat. In this connection one should remember that in order to allow freedom of air way through the gauze in the funnel, only a small quantity of very loosely arranged gauze may be used. It is consequently a very easy matter to have it drip free anæsthetic into the funnel. For this reason the author determined to devise an attachment for Bennett's inhaler to obviate the difficulty by using his ether chamber, the cylindrical form of which, with its lateral outlet, at once avoids much of the danger.

While working on the design of an attachment for Bennett's inhaler for the purpose of tracheal administration as a substitute for Trendelenburg's apparatus, which has no control valves whatever, and for the purpose of administering the ethyl chloride-ether sequence, the author added a removable cap bearing two tubes, to which the rubber tubes for nasopharyngeal introduction according to Crile's method are to be attached. One of these caps is exhibited without the rubber tubes in Fig. 1. In a full equipment, there should be two such, namely, ¼ and ⅜ bore.

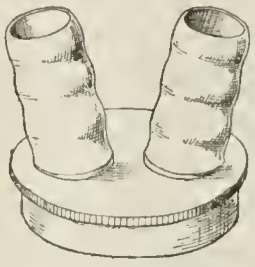

Fig. 1

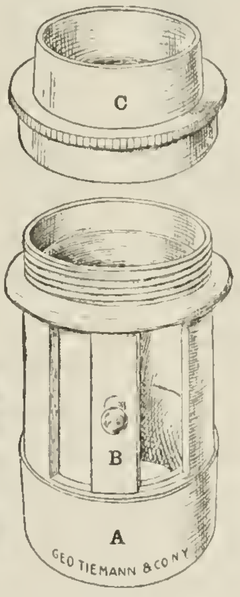

Fig. 2

Fig. 1.—Cap without the rubber tubes.
Fig. 2.—The complete attachment.

The complete attachment consists of a tube (Fig. 2, A) two inches long, conical at one end to fit into the ether chamber in place of the regular metal face mask. At the other end of the tube is a male thread upon which are screwed the caps just described or the cap necessary in ethyl chloride-ether work as subsequently detailed. In the body of the tube is a large valve (Fig. 2, B), which when fully open equals in area that of the tube bore so that the anæsthetic may be instantly short circuited and air only breathed by the patient, if desired. *For Crile's method with ether* the tube is attached to the inlet in place of the face piece and the ether bag affixed to the outlet of the ether chamber. The rubber nasal tubes are slipped over the metal cap, which is then screwed to the attachment and the anæsthesia proceeds. If chloroform is used, only the outer shell of the ether chamber is employed with a small mass of loose gauze laid at the bottom.

The device assembled for this class of work is shown in Fig. 3.

For tracheal work one of the tubes of the cap is plugged with a cork and the rubber tubing over the other connects with the tracheotomy tube precisely as in Trendelenburg's apparatus. The valve in the shaft of this device constitutes a great advantage over Trendelenburg's inhaler, which must be disconnected in order to short circuit the anæsthetic, because it has no valves at all.

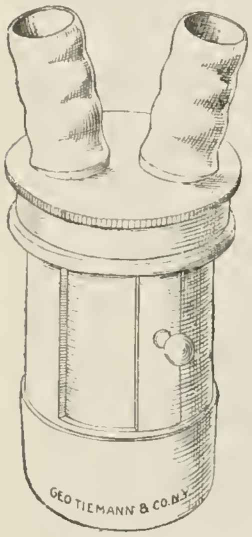

Fig. 3

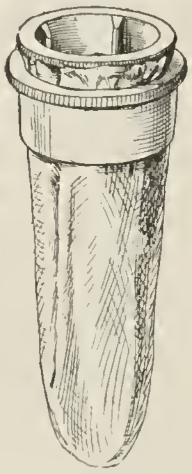
Fig. 4

Fig. 3.—The device assembled.
Fig. 4.—The assembled gauze carrier.

For ethyl chloride-ether exhibition the apparatus is assembled as follows: The regular face piece is screwed to the ether chamber and the attachment is slipped over the other outlet. In place of the cap bearing two tubes one is now adjusted to the attachment designed to receive the ether-bag fixture (Fig. 2, C). Into this cap is slipped the gauze carrier, which is made on well known lines, those of many chloroform masks. It consists of the wire frame (Fig. 2, D), and the tightening ring (Fig. 2, E). The assembled gauze carrier is indicated in Fig. 4, and the gauze carrier adjusted into the tube is shown in Fig. 5. The valves of the attachment and of the ether bag fixture are now wide open and the ethyl chloride is sprayed upon the gauze as it presents itself freely to view in the former (Fig. 5, A). In this manner the principle is obeyed that most anæsthetics act better when their initial administration is deliberate, uniform, and combined with unobstructed air respiration. When the patient begins to show the first signs of ethyl chloride anæsthesia, the valve of the bag fixture is shut, and thus a small amount of rebreathing is instituted. As the narcosis deepens, the valve of the attachment is slowly closed, until after a while, usually from two to four minutes from the outset, the patient is quite under the ethyl chloride and is rebreathing this vapor with a little air added. For a minute or two longer this is continued, until finally the valve of the attachment is also shut. The patient is then rebreathing only the ethyl chloride fumes. At this point the ether, with which the chamber had previously been loaded is slowly turned into the respiratory circuit, is replenished and, if necessary, increased until the patient is thoroughly under its influence. While thus establishing full ether narcosis, it will be noticed the patient is receiving ethyl chloride and ether combined, which act exceedingly well. When the ether narcosis is established, the attachment is slipped off the ether chamber and off the bag fixture and the latter is attached, precisely as in the gas ether sequence.

RESULTS IN PRACTICE.

First, as to the Apparatus for Pharyngeal Administration.—The author may say that Crile's own experience establishes beyond reasonable controversy, that in selected cases it is the method of choice, being much safer than Junker's method by which the vapor of the anæsthetic, usually chloroform, is pumped into the upper air passages. The arrangement for applying Crile's method just described, has worked exceedingly well at the Roosevelt Hospital on public patients, who usually are less desirable subjects for anæsthesia than private patients.

Second, as a Means of Tracheal Administration.—The apparatus is self-evidently perfect, comprising all the features of Trendelenburg's apparatus and adding a short circuiting valve which his does not.

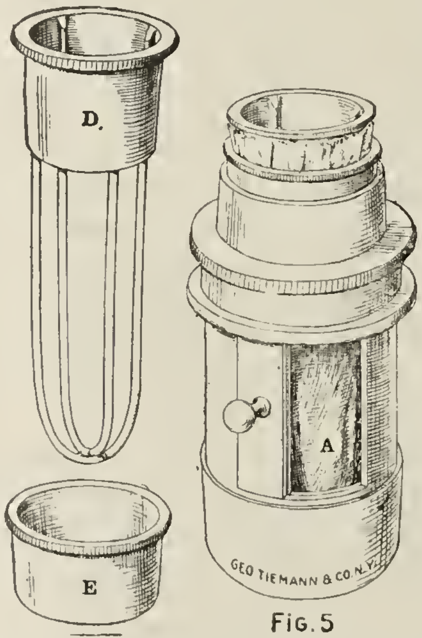

Fig. 5

Fig. 5.—The gauze carrier alone, and adjusted in the tube.

Third, as a Means of Employing the Ethyl Chloride-Ether Sequence.—The writer has given it persistent trial on all patients at the Roosevelt Hospital at the Saturday clinics for many months irrespective of alcoholism and other undesirable features. In alcoholic patients, of course, it does not work as well as in others. The value, however, of ethyl chloride as a general anæsthetic is now established, and also its value as a preliminary to ether administration, so that one may be sure that this device will work exceedingly well wherever this combination is available, in that the device fulfils three distinct aims, namely, it initiates the ethyl chloride anæsthesia slowly with a regularly decreasing quantity of air; it maintains the ethyl chloride anæsthesia perfectly and with the means in the valves of admitting air if required; and, finally, it permits the ether narcosis to be induced, associated with the ethyl chloride without change of apparatus or disturbance of the patient. The author believes that the device will prove of value to those that are working in the specialty of anæsthesia and be a means of economy by obviating the purchase of a special apparatus like Trendelenburg's.

The writer is greatly indebted to Messrs. George Tiemann and Company for great courtesy and valuable suggestions in the preparation of this instrument.

16 West Sixty-first Street.

A REPLY TO DR. H. H. SEABROOK'S PAPER ON WHAT SHOULD THE GENERAL PRACTITIONER KNOW OF OPHTHALMOLOGY?

By FRANK D. W. BATES, M. D.,

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I have had the pleasure of reading an article by Dr. H. H. Seabrook in a copy of your *Journal* of May 28th on What Should the General Practitioner Know of Ophthalmology? and should like to reply; for I believe the general practitioner should recognize some facts upon which Dr. Seabrook and I do not agree.

I am one of those belonging to what Dr. Seabrook designates as "a certain class of eye specialists who look upon the organ of vision as a central starting point of general disease;" only I should put it in a little different way, and say that my belief was that eye strain was one of the greatest factors in producing disease of the general system.

Now, I have spent a great deal of time and money looking into this theory during the past eight years, and I have no hesitation in saying that I believe the theory is correct, and that there is more disease of the general system produced through the eyes than in any other way. Furthermore, even at the expense of being called an enthusiast and a crank I will say that I believe it to be one of the most important theories ever advanced in medicine, as well as one of the most difficult to introduce.

Physicians as a whole are conservative; and it is not to be wondered at that they should be so, for there are scores of new theories advanced every year, not one out of a hundred of which there is anything in, and if they took the time to look into every new theory that came up they would have little time for anything else. Consequently, unless a theory looks plausible upon the surface they will not take the trouble to look into it. The laity have an idea that physicians ought to know all about every new theory that comes up, and value the opinions of physicians accordingly. If a physician is asked his opinion of a theory that he has not considered it worth while to look into, the chances are he will say there is nothing in it. What is his opinion worth? asks the layman. Nothing!

I quite agree with Dr. Seabrook that "It is better not to know so much than to know so much that ain't so;" but he will have to use stronger arguments than I have read or heard from him or anyone else, before he convinces me that strain upon the eyes is not one of the greatest factors in producing disease of the general system. I have been earnestly and conscientiously working to get at the truth of this matter for the past eight years, and have too many cases on my record books showing cures of various diseases of the general system, where medicine failed to give more than temporary relief, to have my belief in the theory easily shaken. I could mention scores of cases; but will mention only two or three.

On May 30, 1901, a man, aged thirty-nine years, consulted me on account of frequent bilious attacks, having heard that I thought eye strain to be a common cause thereof. He had been subject to bilious attacks for fifteen years, and for the previous two years had not gone more than three weeks at any time without having an attack, and said he would have had them oftener if he had not been very careful about his diet and had not taken medicine to keep them off. Each attack laid him up for three or four days. A brother died of phthisis some four years previously; he himself had had a cough for two years before coming to me, and his friends thought he would go off as his brother did, though there had been no other case in the family so far as they knew. Upon examination of his eyes all the trouble I found was .25 D. of hypermetropic astigmatism in O. D. 105°, and .50 D. in O. S. 75° for which I prescribed glasses, and that patient has never had another bilious attack from that day to this; furthermore, in six months' time his cough was entirely gone and he had gained 20 pounds in weight. Now, the majority of the readers of this article will believe it impossible that so slight a trouble with the eyes could produce so much disturbance of the general system, and for that reason I have mentioned this case; for the fact remains that the correction of that small amount of astigmatism did cure him of a disturbance of the general system of which all the medicine he had taken for years had given no more than temporary relief.

In my experience I have found that in some cases .25 D. of astigmatism, or even less, will produce more disturbance than 1 D. or even more, will in others. Why is it? Certainly, if the ciliary muscles are able to overcome the astigmatism in the greater degree, there would be more nerve force used up thereby than in overcoming the lesser degree; but the person might have a larger stock of nerve force to draw from as a reason for its having less effect.

On July 10, 1896, a lady brought her daughter, aged eighteen years, to me with phthisis pulmonalis, having heard that I had said eye strain was a frequent cause of consumption. She had been told by several physicians that her daughter would probably not live more than three months. One brother had died of phthisis ten years previously, but there had been no other case in the family so far as they knew, and the father and mother were robust, healthy Scotch people. I will not enter into the physical condition of this young woman, as I want to be as brief as possible; suffice it to say that she had run down in weight from 113 to 78 pounds, had had profuse night sweats for months, and coughed a great deal with profuse expectoration. She said her eyes did not trouble her, although she could not read very long without their tiring. Upon examination I found that she had .75 D. of hypermetropic astigmatism O. U. together with 15° of right hyperphoria. Upon using the covering test, when looking in the distance with the right eye, the left eye remained in line; but on covering the right eye and looking with the left, the right eye turned up fully 15°. I got her a pair of glasses correcting the trouble with 15° of prism, dividing it between the two eyes, base down before the right and up before the left, and in three days, when she returned to me, the change in her condition was something remarkable. The night sweats were entirely gone, the cough was diminished, and she was feeling better and stronger in every way. In six weeks she had gained four pounds in weight. She remained in that condition for some time, and it was months before the night sweats came back and the cough returned as bad as it was when she first came to me. I wanted to operate upon the superior rectus muscle, but was not permitted to do so, as the family physician assured the parents that there was nothing in my theory, and that her improved condition on first putting on the glasses was merely a coincidence and due to the fine weather and the medicine he had given her. Kind friends, to help the matter along, suggested that an operation might ruin her eyes. However, the girl lived fifteen months after I first saw her, instead of three, and after she died her mother regretted that she had not let me operate upon her, and said that if ever another of her children was similarly affected I might do what I liked with it. Within one year from that time another daughter, aged twenty-two years, began to run down in health and to have a cough. Being taken to the same physician, her mother was told she would probably go off as her sister did; whereupon she was brought to me. I found no muscular trouble of the eyes in her case, but only simple hypermetropic astigmatism of 1 D. in O. D. and 1.25 D. in O. S., for which I prescribed; in a few weeks' time the girl recovered her usual health, and has remained well ever since.

In April, 1900, within a few days of each other, two young women, aged respectively twenty-three and thirty years, came to me presenting premonitory symptoms of insanity. They had both been in poor health for years, and had both worn glasses for years—which, however, did not correct the strain upon their eyes. Upon examination I found 3½° of right hyperphoria in one with a high degree of astigmatism, and in the other 7° to 8° of exophoria with very slight astigmatism. I told the friends of both that unless they were operated upon they would become insane. Both refused to be operated upon at first; but in two months, the one with exophoria came back and I performed a full tenotomy of one of the external recti muscles, with the result of a complete and immediate cure. The patient said she felt relief immediately after the operation, and she has remained well ever since. The other patient refused to be operated upon, saying that she did not believe her eyes had anything to do with her condition. Within one year she was in an insane asylum, where she has remained ever since. The physicians in charge say it is a hopeless case, and nothing can be done for her; but the probabilities are that if her eyes had been properly attended to in time she never would have become insane. In her case I will say that, although I told her relatives an operation was necessary, I would not have operated without having first paralyzed the accommodation and endeavored to correct the trouble by correction of the refraction, when if the muscular trouble remained I would have operated.

In this connection I want to say that shortly after commencing to look into this theory, I was permitted, through the kindness of an undertaker, who was a patient of mine and who took charge of the inmates of a certain large insane asylum after death, to examine the eyes of between fifteen and twenty cadavers after they came into his hands; and in not one single case did I find the eyes in alignment. In the majority of cases the eyes were diverged, and in a few cases one eye was turned upward. It occurred to me that if that condition was really due to a shortening of those muscles which existed during life, if those persons while living had been put under the full influence of anæsthesia the same condition would have appeared; I tried to get into several insane asylums to try the experiment, but did not succeed.

I wrote a long letter to the superintendent of a certain insane asylum in New York State, explaining the theory to him and telling him what I had found in the post mortem examinations mentioned, and asking the privilege of going to his institution and picking out half a dozen cases and putting them under the full influence of anæsthesia, and, if I found the eyes out of alignment, operating upon them until I got them straight, to see what the result would be. He wrote me a very polite letter in reply. He said he was much interested in my theory, and possibly something might come of it in certain diseases; but he had submitted my letter to their medical attendant, and the latter had said that eye strain had nothing whatever to do with insanity. That settled the question so far as my trying the experiment was concerned; but that medical attendant's opinion was worth about as much as the opinion of a new-born babe would have been, if the same could have been obtained.

Now, I have reported these few cases from my practice as briefly as possible, not entering into details any more than was necessary; but I have brought them up to show that I have some reason for my belief in my theory. I have scores of cases on my record books in which the results have been just as striking as in those mentioned; and with the experience I have had it would take a great deal to convince me that eye strain, to quote Dr. Seabrook, belongs to the minor ills of life. It is all very funny to compare it to "lost collar buttons" and "troublesome mothers in law," but it cuts no figure in argument. I am seeking for the truth in this matter, to find out to what extent the general system is affected by strain upon the eyes. I am open to conviction, and if anyone can prove to me that there is nothing in the theory or show me wherein it is defective, I shall be very glad to know it. No man who values his reputation wants to spend his time trying to develop a theory that there is nothing in. But in order to show me that there is nothing in this theory it will have to be proved to me that there is not an undue amount of nerve force used up through the eyes where there is trouble with the refraction or muscular equilibrium. If it can be proved that an undue amount of nerve force is not used up, that will settle the question; for then we can look only for headaches, with perhaps some little nervous disturbances, and possibly at times a little derangement of the stomach. But, on the other hand, if it can be proved that an undue amount of nerve force *is* used up through the eyes, then I contend, even though it is denounced by all the specialists and scientific men in New York or anywhere else, that the theory is not only correct, but that it is the most important theory that has ever been advanced in medicine.

To revert to the subject of Dr. Seabrook's paper, if this theory is true, the fact that eye strain is a factor in producing disease of the general system should be recognized by the general practitioner; and when in the treatment of chronic or obscure diseases his remedies do not have the desired effect, or give only temporary relief, he should take means to find out whether there is not sufficient cause for the same in the eyes.

Now, this theory of eye strain as being a cause of disease was first introduced, between fifteen and twenty years ago, by Dr. George T. Stevens, of New York, who wrote a number of articles on the subject. I am told that about fifteen years ago a committee of physicians was appointed in New York to investigate the theory. I don't know exactly how the investigation was conducted; but no doubt the best men for the purpose were appointed, and it was as thoroughly gone into as possible at the time. The opinion given by the committee was adverse to the theory. But I believe that an investigation made to-day would be far more satisfactory than an investigation made at that time. The greatest strain we have upon the eyes comes from the various forms of heterophoria, and there is a great deal more known to-day about heterophoria, even by the best men on muscular troubles, than was known fifteen years ago; though there is a great deal to learn yet.

Dr. Stevens has done a great deal of good work within the last fifteen years; and since then Dr. Ambrose L. Ranney, of New York, Dr. George M. Gould, of Philadelphia, and others have come to the front, all of whom can show good work done in the same line.

I should like to see another investigation made of the theory by the physicians of New York in the near future.

My own idea of a thorough investigation would be to appoint half a dozen of the best authorities on refractive and muscular troubles, including those who were on the first committee; careful men, who would go into the matter unprejudiced, with a desire to find out whether there is anything in the theory or not. I say unprejudiced advisedly, for I know that the majority of oculists at the present time are prejudiced against the theory, and a man who is prejudiced cannot be so careful in making such an investigation as one who is not. I would have one of that committee an advocate of the theory, who had had considerable experience, and let him do the operating, if operation was necessary. Let the appointees take at least one hundred cases of consumption, in various forms and stages, one hundred cases of diabetes, one hundred cases of insanity (cases in which the patients had lucid intervals, so that their answers could be depended upon), one hundred cases of stomach and liver trouble, etc., and let the committee carefully examine the ocular conditions in each case, and as accurately as possible correct any error they might find, if such was found, and note the result.

I do not pretend to say that even the majority of those one hundred cases of various diseases would be found to result from eye strain, for I do not assert that the development of all diseases resulting from hereditary predisposition is due to that cause, and I certainly do not allege that the relief of eye strain is a cure for all the ills that flesh is heir to; but I don't believe one hundred cases each of the diseases I have mentioned could be picked out in which a percentage of each would not be found to result from eye strain, and in those cases that were found to result therefrom I feel confident that no medicine would materially benefit them until that strain was relieved.

Now, this theory, if true, is undoubtedly one of the most important ever advanced in medicine; and until it is finally proved not to be true I think writers in referring to the subject would do well not to speak slurringly of its advocates as being "a certain class of eye specialists," or some one might retort that "there is another class of specialists who are always ready to ridicule a theory that is too deep for them to comprehend."

The Citizen's Duty in the Prevention of Tuberculosis was the title of a popular lecture delivered by Dr. S. A. Knopf in Binghamton on December 10th.

SURGICAL SHOCK.*

By J. SHELTON HORSLEY, M. D.,

RICHMOND, VA.,

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As is well known, the essential phenomenon of shock is lowered blood pressure, so a brief review of the mechanism regulating blood pressure may not be inappropriate. Blood pressure is controlled, in the first place, by the force and rapidity of the heart beats; secondly, by the amount of blood; thirdly, by the space which this given amount of blood has to fill. When the great increase in the size of the smaller vessels under impulses producing vasodilatation is recalled, it can be readily seen that the action of a given amount of blood when the space is increased is the most important factor to consider. This space, i. e., the capacity of the blood vessels, is regulated by continuous vasoconstrictor impulses sent out from the vasomotor centre on the floor of the fourth ventricle. There is also a vasodilator centre, irritation of which produces a dilatation of the blood vessels, either by some positive action or by an inhibitory influence upon the vasoconstrictor terminals. All these impulses act through terminal plexuses that have some power of local control, the plexuses controlling directly the muscular coats of the vessels. The most effective way of raising blood pressure is to produce intense vasoconstrictor impulses, which would have the same effect upon the given quantity of fluid as forcing a piston down upon water in a cylinder. The condition present in shock seems to be due to exhaustion of the centre that continuously sends out vasoconstrictor impulses. This results in the dilatation of the blood vessels, particularly the arterioles and capillaries, thus making a larger space for the same volume of blood to fill and necessarily producing low pressure which is followed by the clinical symptoms of shock.

Probably no research work in recent years has been of such signal and practical advantage to the profession at large as the scientific and painstaking observations of Dr. G. W. Crile on surgical shock, and upon his work the main facts of this paper are based. It is essential, as pointed out by Crile, to distinguish between *shock* and *collapse*, for the treatment in some respects is different. That shock is due to exhaustion of the vasoconstrictor centre can be readily proved by experiments. Any trauma involving a sensory nerve, if not too violent, produces a rise in blood pressure by stimulating the vasoconstrictor centre and so causing it to send out more active vasoconstrictor impulses. If, after this injury, a second injury is produced, the blood pressure will again rise from the stimulation, and again after a third trauma, although each time the blood pressure rises to a less extent than after the preceding injury. Finally a stage is reached at which no rise is observed following any trauma, and then no stimulant will act upon the centre. This can clearly be termed exhaustion of the vasomotor centre.

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* Read by title before the Medical Society of Virginia.

In collapse, stimulation of the vasomotor centre produces a response. In other words collapse, as differentiated from shock, appears to be a temporary suspension, either partial or complete, of the function of the vasoconstrictor centre. This occurs in fainting, either from violent mental impression or from sudden loss of blood. If stimulation is produced by dashing cold water in, or slapping the face, by injections of strychnine, by ammonia, etc., the centre usually responds and in a comparatively short time seems to be acting normally.

The causes of shock may be, to some extent, inferred from what has been said of the pathological process involved in its production. They consist of anything that produces overstimulation and consequent exhaustion of the vasoconstrictor centre. Under certain conditions, as when a person is in bad health or fatigued from exertion, the vasomotor centre is more easily overwhelmed or exhausted by stimulating impulses than under other conditions, so that personal idiosyncrasy comes into play here very largely. It is also true that the centre is more capable of resisting excessive stimulation in some individuals than in others. Anything tending to weaken the general resistance tends, at the same time, to weaken the resistance of the vasomotor centre. A patient who is nervous and apprehensive about the results of an operation is much more liable to suffer shock than one who takes such things coolly. Loss of heat during an operation as by unnecessary exposure to drafts, or drenching the patient for a long period with cleansing solutions, will tend to weaken resistance and so predispose to shock; damp towels, unnecessarily exposed portions of the legs, arms, or trunk act in the same way. Certain organs that are particularly well supplied with sensory nerves, when injured, produce shock more readily than other organs; a well known instance of this is an injury to the testicle. The immediate, direct cause of surgical shock is some chemical or mechanical trauma to the sensory nerves when in a normal physiological condition for conducting impulses.

The predisposing causes of collapse are practically the same as those of shock. The direct causes, however, differ to some extent. Sudden loss of blood is frequently followed by surgical collapse. A severe injury to a highly nervous organ may cause such overwhelmingly stimulating impulses to the vasoconstrictor centre as to produce temporary suspension of its function. While loss of a moderate amount of blood extending over some period is an active cause of both shock and collapse, its sudden loss is more liable to be followed by collapse. Collapse was very frequently met with in the days of preanæsthetic surgery when an operation was quickly performed with but little regard for immediate hæmostasis.

Symptoms.—The symptoms of shock are due to malnutrition of the vital centres resulting from lowered blood pressure. The skin is cold and pale. Rapid, shallow respiration; sweating; dilated pupils; a weak, thready pulse, usually quite rapid, are noted. Thirst and nausea are present. The patient is restless and can with difficulty keep still. The temperature is subnormal. The mind is usually clear, delirium rarely coming on; the patient is acutely conscious of everything going on around him. The anxious look on the face, the cold, clammy, pale skin, are things that make diagnosis of shock usually easy.

The symptoms of collapse, as pallor of the skin, weakness of the pulse, and subnormal temperature, are identical with those of shock. In collapse, however, the symptoms come on suddenly, whereas in shock they appear gradually. In collapse there is usually unconsciousness or else some slight delirium, which is not the case with shock. Probably the greatest importance should be attributed to the history of the case; that is, whether the conditions present are due to sudden loss of blood, to intense violence upon some highly organized nervous structure, or to a series of traumas extending over some period of time.

Treatment.—The treatment of surgical shock and collapse should be very largely of a prophylactic nature. It is another instance in which the old counsel that " an ounce of prevention is worth a pound of cure " holds good. If we know the causes we can intelligently provide for prophylaxis. A Chicago investigator, Dr. Guy C. Kinnaman, in an article in the *Annals of Surgery,* December, 1904, has very beautifully demonstrated the advantages of heat in the treatment of shock. By numerous experiments he has shown conclusively that if two series of animals undergo the same traumas under identical conditions, with the exception of one series being subjected to cold and the other to heat, the animals that had moderate heat applied suffered far less shock than those that were subjected to cold. Unnecessary exposure of the patient, too prolonged washings with solutions, too much draught or too low temperature in the room, have already been mentioned under the head of causes. The remedy is obvious. The patient's resistance must be brought to its maximum if possible. Mental apprehension and fear should be relieved. Anything tending to lessen individual resistance should be avoided. An unnecessary amount of anæsthesia is dangerous. Care should be taken to proceed with operative measures with all possible dispatch immediately after the patient has been put under surgical anæsthesia.

In the line of preventive measures I wish particularly to commend nerve blocking, a procedure that has been so ably brought out by Dr. Crile, of Cleveland, and by Dr. Cushing, of Baltimore. As shock impulses go through sensory nerves, if these nerves can be blocked, necessarily the shock impulses will be cut off. In an operation upon an extremity, particularly in such grave operations as amputation at the hip joint or shoulder joint, shock is often the most formidable element. If the large nerve trunks are cut down upon after anæsthesia has been produced and are injected with 4 to 10 minims of a 4 per cent. solution of cocaine, shock will be comparatively slight and may, in some instances, be almost absent. This is done under general anæsthesia and before the tourniquet is applied. To illustrate this feature in the prophylactic treatment of shock, I wish to report the following case in which an amputation at the hip joint was done on a boy, fourteen years of age, whose constitution had been seriously impaired by prolonged sickness and suppuration:

J. C., colored, age fourteen years; referred by Dr. J. Wood Jordan, of Ashland, Va.; family history is somewhat vague, but the patient gave an indefinite family history of tuberculosis. He has always been well, except for the trouble with his right leg. When he was ten years old he fell down and hurt his hip. Soon afterwards the hip began to suppurate, an abscess having formed, and the patient was operated upon about three years ago by another surgeon who performed resection of the hip joint. The wound never healed and had been suppurating ever since. The right leg was very small and the thigh was slightly flexed, the leg being also flexed on the thigh. There was complete ankylosis of the hip joint and there were three fistulas discharging pus, one opening anteriorly, another internally near the perinæum, and the third posteriorly just below the buttocks. The patient was poorly nourished and his chest was long and thin, though no organic disease of his lung could be made out. Urine was normal. Temperature was running from 99° to 101° F., and the pulse from 94 to 135. Amputation at the hip joint was performed on March 7, 1904. The operation was done according to Wyeth's method. Before applying the needles or the tourniquet the great sciatic nerve was exposed and injected with several minims of a 4 per cent. solution of cocaine. A similar procedure was attempted with the anterior crural nerve, but owing to the distorted anatomical relations from the sinus in this region, it was somewhat difficult to find this nerve, so its vicinity was infiltrated with a 2 per cent. solution of cocaine, which must have included a part of the nerve at least. Wyeth's pins were then applied and the operation was proceeded with as recommended by Dr. Wyeth. The blood pressure, taken at intervals during the operation, did not fall more than 12 mm. at any time and was 120 when the operation was completed; this pressure was about normal for the patient. The blood pressure was taken by means of Cooke's sphygmomanometer. The patient recovered uneventfully, showing very slight signs of shock.

This case is particularly interesting as the patient was much emaciated, had a feeble pulse, and had been suffering from suppurating bone disease for four years, having already been subjected to one operation. It was a case in which such an operation as amputation at the hip joint would naturally be expected to have been followed by grave shock and possibly by death.

As to the drug treatment, when the case is one of shock in which the shock features decidedly predominate, no drug is of avail, except suprarenal extract. There can be nothing done which will so augment shock and diminish the chance of the patient's recovering as to give either nitroglycerin or amyl nitrite, remedies that are often used. I have no doubt that cases of shock which would have terminated favorably without any treatment have frequently resulted fatally on account of such medication. Suprarenal extract is the only drug valuable in this condition. The most satisfactory method of administering the extract is by intravenous infusion, in solution of one part to 200,000 parts of normal saline solution. This should be given slowly and at a temperature of 110 to 115° F. as it enters the vein. The favorable action of the extract in cases of shock is due to the fact that it acts chiefly upon the muscles and local nerve apparatus of the vessels, thus causing contraction of the vessels, and not by stimulating the vasoconstrictor centre. Any drug which tends to stimulate a centre already exhausted cannot be beneficial, but must, on the contrary, be detrimental in its action, for it is practically sending in the same kind of impulses as produced by the trauma that occasioned the shock. Suprarenal extract, however, acting locally on the vessels, takes the place of those impulses that are sent out from the centre, and gives the tired centre a chance to rest. The intravenous or subcutaneous infusion of salt solution is of some benefit in cases of shock that are not too profound, but suprarenal extract should always be added for reasons already given.

In collapse, drugs may be employed with advantage because, in this condition, the vasomotor centre needs stimulation to bring it to its proper function. The drugs ordinarily stimulating this centre, such as strychnine, may, with propriety, be used here. Alcohol is of some value in surgical forms of collapse, but only when concentrated, as its stimulating effect is due to the chemical irritation it causes. It is well known that alcohol cannot by its physiological action raise blood pressure.

Many cases combine the elements of both shock and collapse; after a long operation when a large vessel is injured collapse may be grafted upon shock. It is needless to point out the gravity of such a condition, but where shock seems to predominate the treatment should be along the lines indicated for the treatment of shock.

REPORT OF SKIN GRAFTING, USING AMPUTATED EXTREMITIES AS A SUPPLY OF SKIN.

By G. HARTMAN, M. D.,
AND
C. WEIRICK, M. D.,
HARRISBURG, PA.,
RESIDENT PHYSICIANS TO THE HARRISBURG HOSPITAL.

Patient H. W., aged twenty-six years, colored, was admitted to the hospital on July 23rd with extensive burns from cinders, the result of an accident in an iron foundry.

The burns covered areas on the left leg from malleolar processes to the knee, and the forearm on the right side; both resulting in the formation of vesicles and bullæ, which speedily healed under treatment with aseptic dressings, and irrigations with normal saline solutions. On the right leg the burned surface extended from the lower third of the leg downward on the dorsal and plantar aspects of the foot and the first toe, the burns being of the third degree, and resulting in complete carbonization of the skin and underlying subcutaneous tissue, and, in some places, the muscular tissue. Extensive sloughing followed later.

The surface was irrigated with a lysol solution, after which normal salt solution was used. The sloughs were carefully removed and trimmed away, and the foot was dressed later with a three per cent. solution of picric acid in order to stimulate the epithelial growth.

On the 27th of August, the granulations being healthy, the parts were skin grafted. The skin from the amputated leg of a patient, H. S., white, in perfect health, was used. His leg had been crushed at 10 p. m., August 26th, just below the knee by an express train. He was brought to the hospital at 7 a. m. on the following morning. The leg was amputated, and at 12 noon, the skin on the amputated leg, having been carefully asepticized, the usual solutions being used, sections of the same, including the subcutaneous tissue, the fat removed, were placed on the previously prepared surface by the usual method. The size of the pieces was about one inch square, and the number twenty-three. There was an interval of one half inch between each piece. The grafts were covered with overlapping narrow strips of rubber tissue, and a normal saline dressing was applied, the parts being covered with gauze saturated with the same, and the dressing being changed every twenty-four hours.

The grafts quickly became adhesive, and in six days the majority showed a pinkish color, with the exception of two pieces which were later removed. Within two weeks the superficial layer of the grafted epithelium had become separated from the underlying layer, and in three weeks the entire surface was covered with a pinkish red epithelial growth. In the fourth week the process of cornification, white in color, began at the periphery of the grafted surface, and so far has shown no tendency to become of the same color as the surrounding skin.

Since the first operation two more have been done, with the use, as before, of skin from amputated extremities, and both have given the same good result.

◆

Connecticut State Hospital for the Insane.—The new State hospital for the insane was turned over to Governor Chamberlain in behalf of the State here on December 8th in the presence of 60 guests, representing the State officers, legislators, and board of charities of the State. The exercises were informal and short, President Costello Lippitt giving the keys to Governor Chamberlain, who accepted with a few words, stating that he considered that the State was doing its most charitable work when it was caring for its insane people. A banquet was served in the north ward at 2 o'clock, following which short addresses were made by Superintendent Noble and Henry Woodward, of the Middletown Hospital; Dr. N. Emmons Paine, of Newton, Mass., who has given material advice regarding the construction of the hospital; Mayor Thayer; and Superintendent Pollock. The site is three miles from the centre of the city on a level tract of land covering 160 acres, on a plateau 50 feet above the Thames River. The hospital now consists of two wards 150 feet apart. The buildings are of brick and steel, with slate roof, and the general style of architecture is on the cottage plan. On the west side are sunning piazzas for each floor. The buildings are divided into four wards each, there being 13 patients to each ward, and for this number are dining and sitting rooms comfortably arranged.

Correspondence.

LETTER FROM PARIS.

Congenital Dislocation of the Hip.—The Assimilation of Fats.—Tracheotomy and Intubation.—The Antiseptic Treatment of Burns.—Pancreatic Diabetes.—Students' Clubs.—Metallic Silver as an Application to Wounds.—The Adulteration of Wines.—Physicians in Official Life.

PARIS, *November 22, 1904.*

M. Le Damany asserted on a recent occasion before the Academy of Medicine that the hip joint at birth was normally such that but little deviation was required to produce the condition known as congenital dislocation. It might be well, he says, to so arrange the baby's garments as to prevent a dangerous degree of thigh extension.

M. René Laufer has recently pointed to the retaining and economizing effect on nitrogenous substances which he has observed to result from a fatty diet. This is seen in the tuberculous as well as in the normal subject. His observations indicate that there is a limit to the assimilation of fats. Fats consumed beyond this limit are useful only in so far as they contribute to the economizing of albuminoids. In tuberculous cases moderate doses are indicated. From two to three ounces of cod liver oil, butter, salad oil, etc., are as much as can be assimilated at a dose.

As between tracheotomy and intubation, there are cases of membranous diphtheria, according to M. Barbier, in which the former is preferable. There are some cases—he has produced specimens in support—in which intubation serves to propel a mass of tracheobronchial false membrane farther into the trachea. In these cases tracheotomy would result in the expulsion of such a mass. If not, it would at least provide the opportunity for its removal.

Mme. Nageotte-Wilbouchewitch (in the *Presse médicale*) advocates, in the case of burns, scrubbing the skin immediately around the burned surface, and cleansing the burned surface itself with soap on a non-absorbent compress. This should be done under anæsthesia. She advocates anæsthesia particularly in facial burns and in children. People should realize the resemblance of a burn to a wound of any other sort, and they should understand that a "first aid" dressing is necessary. Until the physician's advent, a one per cent. solution of picric acid should be used as an emergency dressing.

Lancereaux (*Bulletin de l'Académie de médecine*) describes four cases of pancreatic diabetes, in all of which the lobular lesions were variable, but the islands of Langerhans were always affected. Diabetes is symptomatic either of the arthritic diathesis, a nervous lesion, or pancreatic inadequacy.

The medical student of the University of France has had no club until recently. The cafés, cabarets, and tavernes of the Boul' Mich' have sufficed for him and his reunions; many important student committees have been content with the street. In the university buildings at the Sorbonne, however, they have now a students' club. It has just been opened by the vice-rector. Whether or not it will be frequented is a question. The students as a class are independent and opposed to paternalism. A cooperative restaurant which was operated at a loss for three years has just been closed for lack of patronage.

Parisian surgeons are now dressing wounds with silver leaf. The leaf is placed over the wound or ulcer. It sticks closely, and only a little collodion is requisite to hold it in place. The effects are said to be good.

The authorities of the municipal laboratories of Paris have demonstrated that sixty per cent. of the French wines, and eighty per cent. of the champagnes, are either adulterations or imitations. The importance of this lies in the fact that, while the French law condones the manufacture of such stuff, it is especially stringent in the matter of the punishment of those who attempt to sell it *for home consumption.* Perfidious Albion and auriferous America get it.

Doctors compose one third of the Chamber of Deputies and half of the Senate, and an indescribably pleasant aroma clings to the whole civil fabric by virtue of the great number of physicians in office. M. Combes himself, as the whole world knows, started life as a priest, and is now a doctor of medicine. In the Postal Department there are twenty-seven male doctors, two surgeons, and five medical women. Galen can now say "l'Etat c'est moi."

Therapeutical Notes.

Disinfection of Rubber Gloves.—*Semaine médicale*, for October 12, 1904, after stating that simple washing of rubber gloves is not sufficient for proper sterilization, cites Bumm, Veit, Fromme, and Gawronsky, to the effect that the gloves should be washed in warm soapy water for at least four minutes and then rinsed in a one per cent. solution of mercury bichloride. The gloves may be worn during this process, or removed if preferred. With such sterilization, the gloves may be safely worn during two or more consecutive operations, as long as they are not torn or otherwise damaged.

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NEW YORK, SATURDAY, DECEMBER 24, 1904.

HOSPITAL SATURDAY AND SUNDAY.

The great hospitals of New York are this year in unusually urgent need of pecuniary assistance, as has been manifested in various ways. This issue of the *Journal* will reach its metropolitan readers in the very nick of time in connection with this matter, for the date it will bear is that of Hospital Saturday, and the following day, Christmas, is Hospital Sunday. We take occasion therefore to remind those readers to urge upon their friends a due consideration of the present need, and not to ignore it themselves.

Besides the collections to be taken up in the Christian churches and in the Jewish synagogues, there are ample avenues by which contributions may conveniently be made to the fund, notable among which are the trade associations. These are as follows: The dry goods trade; the bankers and brokers; the cigar and tobacco trade; the paint and varnish trade; the drug, chemical, and aniline trades; the iron, steel, metal, and machinery trades; the clothing and kindred trades; the book trade; the china, glass, house furnishing, brass, and lamp trades; the fur trade; the jewelry trade; the real estate business; the lace, embroidery, and trimmings trades; the music trade; the brewing industry; the confectionery trade; the truckmen and forwarders; the wine and liquor trade; and the building trades. There is also the Woman's Auxiliary Association, of which Mrs. James Speyer, of No. 257 Madison Avenue, is the treasurer; and subscriptions may be made in any of the leading commercial and manufacturing establishments in the city and through auxiliaries or committees in the various exchanges. Finally, contributions may be sent directly to the general treasurer, Mr. Charles Lanier, of No. 59 Cedar Street, up to January 15th. Every contributor is at liberty to specify the particular hospital to which he prefers his gift to be devoted.

Consideration of the immense amount of benefit conferred upon the poor by the institutions to whose funds the gifts are to go is enough of itself to enlist the earnest cooperation of a body so eminently disposed to beneficence as the medical profession. Reflection upon the important aid rendered by the hospitals in medical education cannot fail to back up this consideration most powerfully.

DELUSIONS DEPENDENT ON ABDOMINAL DISORDER.

There is, as our readers are well aware, an obscure form of chronic intestinal disorder characterized by glairy dejections, with or without the expulsion of membranelike formations. It is often an accompaniment of chronic uterine disease. It is perhaps most commonly termed membranous enteritis, though its inflammatory nature is, to say the least, doubtful. It appears to have received more attention in France than elsewhere, and the French vernacular name for it, "les glaires," seems in our present ignorance of its pathology so non-committal as to be preferable to other designations. It is apt to be associated with some deviation from perfect soundness of mind, and often in itself seems to give rise to delusions that grow out of abnormal abdominal sensations, though perhaps it is not notably more prolific of delusions than certain other derangements of the alimentary canal.

At the recent Pau Congress of Neurology Dr. Mirallié reported three examples of delusions due to this disorder, and his communication is published in the *Gazette médicale de Nantes* for November 26th. All three of the subjects were women, and all of them were under the delusion that they were pregnant. One of them, who had for many years been a widow, admitted having allowed the approaches of a lover, and to him she attributed her fancied pregnancy. Another named as the father of her imaginary child a physician whom she had consulted while on a journey, though she stated spontaneously that he had committed no impropriety, and expressed herself as consequently at a loss to account for her supposed condition. *En passant,* we may remark that these statements by two of M. Mirallié's patients emphasize anew the incredulity with which we should always receive self-accusations of unchastity by women who are insane or bordering on insanity.

The patient first mentioned had the additional delusion that the fruit of her conception was a crocodile, but this idea did not take possession of her until after she had passed the expected time of her confinement, for which she had made proper preparations. The imaginary crocodile gave her a great deal of trouble, being to her sensations a very lively reptile, meandering through her entire trunk and occasionally invading her arms or her thighs. Quite voracious was it, too, only to be quieted for the time being by her taking food. M. Mirallié, pretending to enter into the spirit of his patient's delusions, treated her for the " glaires " under cover of a feigned campaign against the crocodile. Whenever the " glaires " were ameliorated by his treatment, the crocodile became less troublesome—it was " blessé," as the patient said—but it was never wholly subdued, and the woman, having at last given up hope, was lost sight of. This modification of the delusion in his patient inclines M. Mirallié to accede to the view that delusions of the existence of reptiles within the abdomen have a real basis in unpleasant abdominal sensations due to physical disease.

DIARRHŒA AND APPENDICULAR INFLAMMATION.

This subject was quite extensively considered at a recent meeting of the Paris Hospital Medical Society apropos of a paper presented by M. Maurice Soupault, which, together with a report of the discussion and another communication bearing on the matter, by Segond and Moizard, is published in the society's *Bulletins et mémoires* for December 1st. M. Soupault reported six cases that had come under his own observation in which severe diarrhœa had accompanied disease of the vermiform appendix. M. Siredey stated that within a short time he had observed five cases, and other instances were mentioned by various members.

M. Soupault seems to have been under the impression that the profession in general had regarded diarrhœa as so very rare in conjunction with appendicular inflammation as to render its presence almost proof of the non-existence of appendicular disease in a given case. On the other hand, M. Le Gendre gave it as his impression that it was generally understood that diarrhœa was present in a certain proportion of cases. For his part, he added, in a recent book entitled *Traité de thérapeutique infantile médico-chirurgicale,* the joint production of himself and M. Broca, it had been explicitly laid down that the occurrence of diarrhœa in conjunction with disease of the vermiforn appendix was not rare, and consequently that the existence of diarrhœa by no means negatived a diagnosis of appendicular disease. He, however, had not observed, as M. Soupault had, that diarrhœa boded a grave termination of the disease.

If there is any general conviction in this country that diarrhœa is incompatible with a diagnosis of appendicular disease, we have not been aware of the feeling, and we doubt if it is widely prevalent. Appendicular inflammation of an insidious type, we are inclined to think, is often preceded by one form or another of functional disturbance of the alimentary canal, sometimes marked by many recurrent attacks before disease of the appendix is frankly revealed. However, the presence or absence of such disturbance is of little if any diagnostic import, we should say, but it will be interesting to note if further observation confirms the idea that diarrhœa involves a grave prognosis in appendicular disease.

NEUROLOGICAL PITFALLS.

On every hand we hear it said that neurology is the hardest department of medicine. It is a matter of common observation that nervous diseases provoke the largest percentage of diverse diagnoses and therapeutic blunders. There must be some special reason or reasons for this, for there are neurologists who, on the other hand, declare that their specialty is the easiest to practise and who are noted for making singularly uniformly correct diagnoses and for their therapeutic victories.

Perhaps the foremost, if not the entire, cause for this gloomy notion in regard to neurology is to be found in the personality of the practitioner. No branch of medicine makes more of a demand upon the attendant's intellect and capacity for correct reasoning and less upon the mere contents of his memory than does the science of neurology. So interrelated, psychically and physically, is the nervous apparatus and its activity with everything else in life that when it exhibits abnormal manifestations, innumerable are the points of view from which the latter must be studied. Now, it is a glaring fact that men as a rule lean more upon their memories than they do upon their reasoning faculties. It is less irksome, and as they realize that they differ more widely with their fellows in regard to the latter than they do in regard to the former, they are bolder in calling upon their memories than in trusting to their logical abilities. How often it is repeated that mistakes are made, not from want of knowledge (memory), but from failure to think (intellect). Neurology is preeminently the field of medicine in which such failure to think is most glaringly exposed; hence the widespread dissatisfaction and varied opinion in regard to the practice of it.

Another pitfall lurks in the conception that is held of the nervous system. Properly considered, the latter is a very simple affair. It consists of a single element and its sustentacular environment immensely multiplied. The two functions of this element, the neurone, are *self-nutrition* and the *exhibition of irritability*. It is difficult to keep this simple, uniform conception of the nervous apparatus clearly before the mind's eye, because we are accustomed to seeing its activities manifested in so many different ways. A moment's thought, however, will bring home the fact that motion, sensation, mentality, and general nutrition are not nervous phenomena. Motion belongs to the muscles, sensation to particular end organs, nutrition to special embryonic cells, and mentality to the interplay of various neural processes. Our analysis of the nervous activities, therefore, is wholly a matter of inference and indirect reasoning. The pitfall lurking in this fact is obvious enough.

Another source of dissatisfaction with neurology is undoubtedly to be traced to the fact that many practitioners are not familiar with the very recent advances that have been made in our knowledge of the anatomy and physiology of the nervous system. The oft quoted aphorism that disease is nothing but perverted physiology comes nearer to expressing the whole truth in neurology than in any other department of medicine. One must expect therefore to continue to find neurology hard and to meet with overwhelming discouragements until he has relearned his nervous anatomy and physiology, until he has viewed it in all its beauty of logical arrangement and consistent biological and embryological development, and not as a mass of incomprehensible tissue with absurd and irrelevant names tacked on to it here and there. Evolution, as portrayed in the laws of biology, comparative anatomy, and embryology, is the key that unlocks the mysteries of both normal and abnormal nervous manifestations.

Another stumbling block in the practice of neurology is the psychology involved in it. Modern physiological psychology is a new science, and its physical basis is the functions of the nervous system. Too many practitioners ignore psychology entirely or have a most ancient and inadequate conception of it. They thus lose all valuation of the psychic in nervous diseases, and so fall into most unfortunate disasters in the recognition and management of their nervous cases. Psychology is an important guide in the mazes of neurology.

Finally, the classification of nervous diseases as usually presented in the books is misleading to a degree. In most works ætiology, symptoms, and pathology are promiscuously and without rhyme or reason made the basis of the classification. Most authorities classify the diseases by such arbitrary and mere topographical features as the brain, spinal cord, and peripheral nerves. No wonder therefore that one of the greatest works on neurology drops into the pitfall of placing tabes dorsalis and disseminated sclerosis under the head of spinal cord diseases, that another puts acute anterior poliomyelitis under the systemic diseases, and that still another ranks myasthenia gravis among the bulbar palsies.

Pathology should alone form the basis of classification, and yet hitherto this basis has not been openly adopted. Neuronic and non-neuronic elements, when diseased, undergo such dissimilar pathological changes, with such a dissimilar ætiology, symptomatology, prognosis, and therapy, that a division of nervous diseases into the neuronic and the non-neuronic is both logical and practical. Degenerations in the neurones form the first set of diseases; inflammations, hæmorrhages, and connective tissue growths constitute the second. Progressive muscular atrophy is a neuronic disease; acute anterior poliomyelitis is a non-neuronic disease. The neuronic degeneration that occurs in the latter is a mere sequel of the disease and is comparable to the pyramidal degenerations that take place after cerebral hæmorrhage. In spite of the fact that we may not yet be in a position to classify exactly on this basis all the nervous diseases, we shall be as our knowledge of the latter becomes more definite. In the mean time it will prove eminently logical and certainly less confusing to adopt in a broad way the pathology of these diseases as the basis of their classification.

L. HARRISON METTLER.

FORDHAM UNIVERSITY.

It is reported that under this name St. John's College, of Fordham, in the city of New York, is about to take on the character of a university, and that its school of medicine and its school of law will probably be in operation within a year from the present time. St. John's is an old seat of learning, and doubtless any professional schools that it may establish will prove creditable.

THE NEW YORK STATE HOSPITAL FOR THE CARE OF CRIPPLED AND DEFORMED CHILDREN.

The fourth annual report of this institution gives continued evidence of its usefulness. As many of our readers know, it is now situated in Tarrytown, but it is soon to be moved to West Haverstraw, in Rockland County. Its scope is not that of a mere house of refuge; the deformities and disabilities of its little inmates are treated with a view to their relief or cure, and with very gratifying success.

THE ALLEGED ABUSE OF DRINKING WATER.

At a recent meeting of one of the medical societies of New York the harmfulness of the copious drinking of water was under discussion. We may readily admit that errors may be committed even in so simple a matter as drinking water, but we are inclined to think that any occasional harm that is done by excess or untimeliness in water drinking is much more than counterbalanced by the benefit of "washing out the tissues," and in saying that we disclaim "worshipping at the shrine of uric acid."

News Items.

Society Meetings for the Coming Week:

MONDAY, *December 26th.*—Medical Society of the County of New York; Lawrence, Mass., Medical Club (private); Cambridge, Mass., Society for Medical Improvement; Baltimore Medical Association.

TUESDAY, *December 27th.*—New York Medical Union (private); Metropolitan Medical Society, New York (private); Buffalo Academy of Medicine (Section in Obstetrics and Gynæcology); Richmond, Va., Academy of Medicine and Surgery; Rome, N. Y., Medical Society; Boston Society of Medical Sciences (private).

WEDNESDAY, *December 28th.*—New York Academy of Medicine (Section in Laryngology and Rhinology); New York Pathological Society; New York Surgical Society; American Microscopical Society of the City of New York; Philadelphia County Medical Society; New York Dermatological Society (private); Auburn, N. Y., City Medical Association; Berkshire, Mass., District Medical Society (Pittsfield).

Change of Address.—Dr. George L. Nicholas, to 8 East One Hundred and Ninth Street, New York.

NEW YORK.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending December 17, 1904:

	December 10.		December 17.	
	Cases.	Deaths.	Cases.	Deaths.
Measles	138	8	103	12
Diphtheria and croup	368	31	329	40
Scarlet fever	208	14	184	13
Smallpox	..	..	2	..
Chickenpox	112	..	126	..
Tuberculosis	345	160	310	134
Typhoid fever	87	19	72	16
Cerebrospinal meningitis	..	13	..	26
	1,258	245	1,126	241

Lecture by Dr. Lederle.—Former Health Commissioner Lederle lectured on December 14th on Public Health at Grace Parish Hall, 415 East Thirteenth Street. The lecture was free.

Dr. Carl Beck, of New York, was elected a corresponding member at the last meeting of the Munich Medical Society, an honor never conferred upon an American physician before by this society, we understand.

Sweaters Barred from the Public Schools.—No more sweaters in the public schools of Brooklyn is the order sent out by the health department of that borough. It has created a great stir among parents, for many boys are equipped with these economical garments. The health department regards the sweater as an outdoor garment exclusively.

Erratum.—In our issue of December 17th, an error crept into Dr. Seibert's communication on Scarlet Fever, which will be found corrected in the reprint. On page 1153, second column, second paragraph, the words black and shaded should be transposed, and the same change should be made under Chart II, and on page 1155, second column, second paragraph.

Seney Methodist Hospital, Brooklyn.—The board of managers of the Seney Hospital of Brooklyn have announced that the conditional $300,000 has been raised and that it was now assured of the gift of $125,000 offered by Mr. and Mrs. William Halls. Mr. Halls, who is vice-president of the Hanover National Bank, is also vice-president of the board of managers of the hospital. The work of renovating and completing the building will now be undertaken.

Beth Israel Hospital Alumni Association.—The Beth Israel Hospital Alumni Association gave its first annual dinner at Clinton Hall, New York, Thursday evening, December 15, 1904. Dr. A. Hymanson, president of the association, acted as toastmaster. The following gentlemen responded on calls: Mr. Joseph H. Cohen, president of the Beth Israel Hospital; Dr. Fred. W. Groyer, Dr. A. Brothers, Dr. L. J. Ladinski, Dr. J. Halpern, Dr. A. E. Isaacs, Dr. A. A. Himowich, Dr. D. Robinson, Dr. G. Miller, Dr. N. Friedman, Dr. Rabinovitz, and Dr. I. Hirsch. The dinner was attended by the graduates of the hospital and by the visiting staff, numbering forty in all.

An Enlarged Hospital Planned for Coney Island.—Charities Commissioner Tully is planning a larger hospital for Coney Island. The present reception hospital is too small to meet the demands which are made upon it during the summer, and Mr. Tully believes that some action should be taken by the city to build and equip a larger institution for the summer season next year. He recommends that part of a large tract of land owned by the city fronting on the east side of Ocean Parkway should be taken as a site for the new hospital. The proposition has been referred to the Finance Department by the Board of Estimate for investigation.

Death of Dr. Pryor.—At a meeting of the New York Obstetrical Society held October 11, 1904, the following resolutions were adopted: That in the death of Dr. Pryor we have lost a prominent member of the society, distinguished alike as an original thinker, an earnest advocate of the truth, and an honorable gentleman; that we extend to the family of our deceased fellow our heartfelt sympathy; that a copy of these resolutions be sent to them and published in the medical journals. Henry C. Coe, Edwin B. Cragin, Clement Cleveland, committee.

The Medical Board of St. Vincent's Hospital, at the regular quarterly meeting held December 13, 1904, caused the following minute to be entered on its records, sending copies to the bereaved family and to the medical magazines: The members of the medical board of St. Vincent's Hospital have learned with profound regret of the death of their colleague, Dr. William R. Pryor. Of undaunted courage and indomitable perseverance, Dr. Pryor followed truth unflinchingly and the highest ideals without faltering. These qualities, coupled with technical skill of the first order and an unusually acute power and wide range of observation, had won for him an enviable reputation and a commanding eminence in his special field. His fine enthusiasm, his frankness and directness of purpose, his readiness to lend a helping hand were enduring qualities which gained for him the highest prizes of ambition, the gratitude of his patients, the love and respect of his associates. Frederick S. Dennis, M. D., president; George D. Stewart, M. D., secretary.

PHILADELPHIA.

Meeting of the State Board.—The Pennsylvania State Board of Medical Examiners held examinations in Philadelphia from December 13th to 17th.

Delegates to the Pan-American Medical Congress.—Dr. Roland G. Curtin, Dr. Seneca Egbert, and Dr. Joseph McFarland have been appointed by the council of the American Society of Tropical Medicine delegates to represent that society at the Fourth Pan-American Medical Congress to be held at Panama, January 4 to 7, 1905.

Donation to the University Hospital.—Mrs. Samuel Dickson has given $25,000 to the University of Pennsylvania, one half of the income of which will be devoted to the maintenance of the Orthopædic Ward in the University Hospital. The other half of the income of this fund will be devoted to other purposes.

Physical Education at the University of Pennsylvania.—The new gymnasium at the University of Pennsylvania was formally presented to the trustees on Wednesday evening, December 14th. It is the intention of the university authorities to make physical education compulsory for the students in the academic departments. The department of physical training is under the charge of Dr. R. Tait McKenzie, formerly of McGill University, Montreal.

Personal.—Dr. Anna M. Fullerton has recently returned to Philadelphia after six years spent in India in charge of a missionary hospital in Ludhiana, Punjab, Northern India. Before taking up the work of a medical missionary in India, Dr. Fullerton was the chief resident of the Woman's Hospital of Philadelphia for ten years. Dr. Fullerton gave a lecture at the Woman's Hospital on the night of December 15th, in which she described the conditions of life and medical practice among the natives.

The Philadelphia Pædiatric Society.—The following was the programme of the meeting of the Philadelphia Pædiatric Society, held December 13th: Dr. D. J. M. Miller exhibited a patient with possible abdominal tuberculosis, and read a note on the Duration of the Prodromal Period of Rötheln. Dr. George P. Müller reported a case of Tuberculosis of the Kidney. Dr. Maurice Ostheimer read a paper on Incontinence of Fæces in Children. Dr. W. Reynolds Wilson read a paper on Hæmorrhage of Syphilitic Origin in the Newborn.

Deaths.—Dr. Levi Curtis died at his home, 458 North Sixth Street, of heart disease, on December 12th. Dr. Curtis graduated from the Jefferson Medical College in 1847. He was in charge of the hospital barracks at Broad and Cherry Streets during the civil war. Dr. Curtis was a member of the Philadelphia County Medical Society and of the Northern Medical Society. He was 82 years of age.

Dr. John Fidelle Fisher was found dead in his room at 551 North Tenth Street on December 9th. Dr. Fisher, who was 60 years old, graduated from the Jefferson Medical College in 1872.

Medical Society Meetings for the Week Ending December 31st.—Tuesday, December 27th, Northwest Medical Society; Philadelphia Neurological Society. Wednesday, December 28th, Philadelphia County Medical Society. Friday, December 30th, South Branch, Philadelphia County Medical Society. From December 27th to December 29th, inclusive, the American Association for the Advancement of Science and the affiliated societies will hold meetings in the buildings of the University of Pennsylvania. For list of societies and places of meeting, see this *Journal*, for December 10th, page 1134.

The Activity of the Food Commissioner's Office.—Forty-seven persons were indicted by the Grand Jury on December 1st on charges of violating the pure food law. Forty-six of the accused persons are dealers in fruit syrups or extracts, or proprietors of soda water fountains; the forty-seventh indictment was found against a person accused of selling oleomargarine without a license. On December 2nd, Magistrate O'Brien issued warrants for twelve persons who were charged with selling fruit syrup and extracts composed wholly or in part of artificial products and colored so as to represent the natural fruit juice or extract. The charges were made by the Food Commissioner's office.

Experiments With Copper for the Purification of Water.—Dr. Henry Kraemer, professor of biology in the Philadelphia College of Pharmacy, has just made public, through the lay press, the result of some experiments made on polluted drinking water by suspending a piece of copper foil 3½ inches square in a quart of water. The results of these experiments confirm the results of previous experiments noted in these columns. Briefly, Dr. Kraemer found that the suspension of clean pieces of copper foil of the size above mentioned in water at a temperature of from 80° to 100° F. caused a reduction of from 75 to 90 per cent. in the number of pathogenic organisms contained in the water.

Society of Normal and Pathological Physiology.—A stated meeting of the Society of Normal and Pathological Physiology was held in the medical laboratories of the University of Pennsylvania on Monday evening, November 21st. The following contributions were presented: A Study of the Metabolism of a Vegetarian, by Dr. John M. Swan; A Second Coagulation of the Blood Due to a Fibrinogenous Substance Not Identical with Fibrinogen, by Dr. Edward T. Reichest; The Movements and Reactions of Amœbæ, by Dr. H. S. Jennings; The Lloyd Reaction for Morphine and Other Alkaloids, by Dr. D. W. Fetterolf.

Woman's Sanitary League.—At the annual meeting of the Woman's Sanitary League, held at 1012 Walnut Street, on November 7th, the following officers were elected: President, Mrs. J. Jones; first vice-president, Mrs. James Dall; second vice-president, Mrs. Charles C. Keen; vice-president at large, Dr. Elizabeth N. Baer; corresponding secretary, Mrs. Samuel G. Diehl; recording secretary, Mrs. Ada L. Shannon; treasurer, Mrs. Lizzie S. Decker; executive board, Mrs. J. C. Lovett, Mrs. J. D. McKee, Miss M. E. Broomall, Miss H. Donaldson, Mrs. N. C. Cenker, Mrs. Leonard Atwood, Mrs. N. Glenn, Mrs. Samuel H. Scott, Mrs. N. E. Kyson, and Mrs. Burns.

Examination of Milk.—The bacteriological laboratory of the bureau of health has been engaged in making routine examinations of milk for the presence of pus and the pus producing bacteria since 1897. When these elements are found in a sample of milk, exclusion of that milk from the city follows, until the diseased animals have been found and excluded from the herd and a certificate to that effect submitted from a registered veterinarian. In 84.5 per cent. of 400 suspicious herds the diseased cattle were positively identified. This work has resulted in a marked improvement in the milk supply of the city. So far this year 7,573 specimens have been examined and 159 excluded, corresponding to 2.1 per cent.

Medical Inspection of Schools.—During the month of October the assistant medical inspectors examined 43,722 school children and excluded 1,562, or about 3.8 per cent. Of this number 6 were excluded for diphtheria, 9 for scarlet fever, 97 who had been in immediate contact with cases of scarlet fever, 17 for chickenpox, 9 for mumps, and 7 for trachoma. There were 364 children sent home because of pediculosis capitis, 30 because of itch, 134 because of impetigo contagiosa, 17 because of favus, 88 because of acute, non-contagious inflammation of the eyes, 88 because of ring worm, 19 because of suppuration of the ears, 316 for more or less serious defects of vision, and 134 for unsatisfactory vaccination.

Changes in the Philadelphia General Hospital.—A department of tuberculosis was organized at the Philadelphia General Hospital during the week of December 12th. The department has the following personnel: Dr. Lawrence F. Flick, consulting physician; Dr. Joseph Walsh, Dr. W. B. Stanton, Dr. H. R. M. Landis, and Dr. Howard S. Anders, visiting physicians. Other changes in the staff of the hospital are as follows: Dr. James Hendrie Lloyd and Dr. William Pickett have been appointed visiting neurologists; Dr. James H. McKee has been appointed visiting pædiatrist in place of Dr. J. P. Crozer Griffith, who resigned; Dr. Judson Daland has been appointed visiting physician; Dr. T. B. Holloway has been appointed ophthalmic registrar, and Dr. Charles H. Weber has been appointed pædiatric registrar.

Vaccination Certificates.—Although the law of Pennsylvania requires that every child on admission to the public schools shall present a certificate of successful vaccination signed by a registered physician, 182 children have been found since September 1st, who hold such a certificate, but on whom a scar is not visible. Investigation shows that physicians have been in the habit of issuing the certificate of successful vaccination at the time the operation is performed. This practice is considered by the Department of Public Health and Charities to be a flagrant disregard of the objects of the law, and steps are being taken to bring signers of such certificates to justice. There is at present a child in the Municipal Hospital who is suffering from smallpox of a very grave type who held such a certificate. We know that some physicians have issued certificates at the time of performing the operation in order to insure the continued attendance of a child at school. This was done because some school principals are such sticklers for the letter of the law instead of its spirit that they will exclude a child from school for the interval between the inoculation of the vaccine virus and the appearance of the lesion.

The Health of the City.—The following infectious diseases were reported for the week ending December 10th:

	Cases.	Deaths.
Typhoid fever	63	7
Scarlet fever	79	3
Smallpox	1	1
Chickenpox	155	0
Diphtheria	117	16
Cerebrospinal meningitis	1	0
Measles	6	2
Whooping cough	9	1
Pulmonary tuberculosis	58	48
Pneumonia	75	59
Erysipelas	20	0
Puerperal fever	1	3

The total death rate for the week was 453, in an estimated population of 1,408,154, corresponding to an annual death rate of 16.73 per 1,000 population. The infant mortality was 84; 64 under one year and 20 between one and two years of age. There were 34 still births, 14 males and 20 females. The following deaths were reported from other infectious diseases: Tuberculosis other than pulmonary, 9; dysentery, 1; diarrhœa and enteritis, under two years, 5. On the fifth of this month Philadelphia experienced a heavy snowstorm, during which four inches of snow fell. The maximum temperature on that day was 31° and the minimum 25°. During the storm one person was killed by a fall and nineteen were injured. Snow also fell on the tenth. The temperature has been low, as a rule.

Donation Days at Various Hospitals.—Sunday, November 20th, Thanksgiving week, and Sunday, November 27th, were named by the Presbyterian Hospital in Philadelphia as Donation Week. During 1903, 12,264 patients were treated in the wards, dispensaries, and homes of the hospital. The income is $20,000 less than the expenses of the institution. The erection of a new maternity house, made possible by a gift of $36,000 for the purpose, will further tax the resources of the hospital. A committee of women gave a reception at the hospital on Friday, November 25th, from 2 to 5 p. m., at which time the hospital was open for inspection.

Tuesday, November 29th, was Donation Day at the Philadelphia Polyclinic and College for Graduates in Medicine. It is hoped that if any one wishes to contribute to the work of this institution the fact that Donation Day has passed will not deter him from making his contribution.

Thanksgiving Day was observed as Donation Day at the German Hospital. The total contributions were $12,563.00. A committee of ladies received visitors and escorted them through the hospital.

The Free Hospital for Poor Consumptives held Donation week, and gave a free exhibition of the White Haven Sanatorium from November 28th to December 3rd, at 1604 Chestnut Street. Lectures on work for consumptives were given by the members of the medical staff each evening at 8 o'clock under the auspices of the ladies' auxiliary.

GENERAL

Western Surgical and Gynæcological Association.—The fourteenth annual meeting of this association will be held in Milwaukee, December 28th and 29th. We hope to publish the programme in our next issue.

Chinese Woman Physician to Lecture.—Dr. Yamei Kin, an American graduate in medicine, born in China, has lectured in Cleveland on the Empress Dowager of China, and will probably repeat the discourse in other cities. She speaks Chinese, Japanese, and English fluently.

Obituary Note.—Steth Gordon Green, A. B., M. D., a graduate of the College of Physicians and Surgeons, of New York, died in El Paso, Texas, on October 25, 1904, of typhoid fever. Dr. Green was not quite 30 years of age; he was born in Brandon, Miss.

North Central Illinois Medical Association.—The North Central Illinois Medical Association closed a three days' session at Pontiac on December 7th, after electing the following officers: Dr. William O. Ensign, of Rutland, president; Dr. J. J. Pearson, of Pontiac, first vice-president; Dr. T. B. Cook, of Mendota, second vice-president; Dr. John Ross, of Pontiac, secretary. The next meeting will be held in Sterling.

Dannemora Prison.—Dr. Charles H. North, of Buffalo, who has been assistant physician at the Dannemora State Hospital since its opening in 1900, has been promoted by Superintendent of Prisons Collins to the post of medical superintendent of that institution in place of Dr. R. B. Lamb, who was transferred on December 1st to the Matteawan Hospital. The salary is $3,600 per annum, increased yearly up to $4,500.

West Roxbury, Mass., Medical Society.—A medical society has been formed in Jamaica Plain, to be known as the West Roxbury Medical Society, and to which all members of the Massachusetts Medical Society located in or about the West Roxbury, Brookline, or Dedham districts are eligible. Dr. E. P. Gerry is president; Dr. A. P. Perry, vice-president, and Dr. J. S. Leard, secretary.

Anderson County, Ky., Medical Society.—At a meeting of the Anderson County Medical Society in Lawrenceburg, the following officers were elected for the ensuing year: President, Dr. J. L. Toll; vice-president, Dr. C. M. Paynter; secretary and treasurer, Dr. G. E. Davis. Dr. O. L. Townsend, of Glensboro, was elected delegate to the State meeting at Louisville in May, with Dr. C. W. Kavanaugh as alternate.

New Hospital for St. Paul, Minn.—Articles of incorporation were filed on December 8th by the Evangelical Lutheran Hospital Association of Southern Minnesota. The association is incorporated for the purpose of erecting a hospital for the benefit of the sick, infirm, aged, indigent, and neglected. The building will be erected with funds secured by subscription. The officers of the association are: President, A. F. Winter; vice-president, J. Grabarkewitz; secretary, H. C. Bode; treasurer, A. Deebach, and trustees, A. F. Winter, N. Nordgaard, J. Kroeger, Carl Seltz, and A. Burmeister.

Smallpox in Chicago.—Chief Medical Inspector, Dr. Heman Spalding, reports 16 new cases of smallpox sent to the Isolation Hospital during the week; 15 never had been vaccinated; one had an old, imperfect scar; 4 were unvaccinated children under the school age. One was an unvaccinated school child in school on a false certificate of vaccination. Four came from the downtown lodging houses. Since January 1st there have been 323 cases of the disease, of which number 22 died, 251 recovered, and 50 remain in the hospital under treatment.

New Children's Hospital Planned for Chicago.—Plans have been drawn in Chicago for a new home for the Children's Memorial Hospital, to cover an entire city block and provide every comfort and convenience for the care of sick children. It is the purpose of the promoters of the charitable institution to raise $150,000 and then begin work. Mrs. Julia F. Porter, who founded the hospital as the Maurice Porter Children's Hospital in memory of her son, will give $75,000, and a wealthy resident of the North Side will contribute $20,000.

Massachusetts State Board of Health.—Dr. Charles Harrington has been selected to succeed the late Dr. Samuel W. Abbott as secretary of the Massachusetts State Board of Health. He was formerly a chemist for the board, and for the last fifteen years has had charge of the bureau of milk inspection for the Boston Board of Health. Since 1883 he has been connected with the Harvard Medical School, where he is assistant professor in hygiene. Dr. Harrington was born in Salem in 1857, and was educated at Harvard, the Harvard Medical School, and at Leipsic, Strasburg, and Munich.

Waukesha County, Wis., Medical Society.—The annual meeting of the Waukesha County Medical Society was held at the Waukesha Springs Sanitarium on December 3rd. The following officers were elected for the ensuing year: President, Dr. H. G. B. Nixon, of Hartland; vice-president, Dr. B. U. Jacob, of Waukesha; secretary, Dr. M. M. Park, of Waukesha; treasurer, Dr. William B. Campbell, of Menomonee Falls; censor for three years, Dr. Thomas Tomelty, of Big Bend. The other two censors are Dr. Hugo Philler, of Waukesha, and Dr. D. McL. Miller, of Oconomowoc.

Mortality of Michigan During November, 1904.—There were 2,415 deaths returned to the Department of State for the month of November, corresponding to a death rate of 11.6 per 1,000 population. This is a decrease from the preceding month, whose rate was 12.0. By ages, there were 382 deaths of infants under one year of age, 121 deaths of children aged one to four years, and 807 deaths of elderly persons over 65 years old. Important causes of death were as follows: tuberculosis of lungs, 166; other forms of tuberculosis, 24; typhoid fever, 56; diphtheria and croup, 44; scarlet fever, 4; measles, 1; whooping cough, 6; pneumonia, 157; diarrhœa, enteritis, under two years, 70; meningitis, 25; influenza, 18; cancer, 128; accidents and violence, 186.

Statement of Mortality in Chicago for the Week Ending December 17, 1904, compared with the preceding week and with the corresponding week of 1903. Death rates computed on United States Census Bureau's estimated midyear populations of 1,932,315 for 1904 and of 1,873,880 for 1903:

	Dec. 17, 1904.	Dec. 10, 1904.	Dec. 19, 1903.
Total deaths, all causes	509	512	550
Annual death rate per 1000	13.77	13.84	15.28
By sexes—			
Males	293	304	317
Females	216	208	233
By ages—			
Under one year	96	70	87
Between one and five years	40	51	53
Over 60 years	112	123	127
Important causes of death—			
Acute intestinal diseases	15	20	19
Apoplexy	15	20	15
Bright's disease	45	41	40
Bronchitis	22	14	21
Consumption	57	65	53
Cancer	24	24	21
Convulsions	13	11	18
Diphtheria	11	15	15
Heart diseases	42	50	43
Influenza	3	1	3
Measles	0	2	0
Nervous diseases	27	20	33
Pneumonia	95	85	95
Scarlet fever	4	2	7
Suicide	5	12	11
Smallpox	0	1	0
Typhoid fever	8	7	11
Violence (other than suicide)	15	38	40
Whooping cough	4	3	1
All other causes	104	82	103

No material change in public health conditions is indicated by the mortality returns for the week. The death rate continues unusually low for the season. The average December rate between 1893 and 1903 was 15.19 in the thousand of population; thus far during the present month the rate has been 13.35 and that for the week is only 13.77, as compared with 15.28 for the corresponding week of last year. Not even the depressing fogs, which might have caused an increase of suicides, have had any effect; in fact, the number of deaths from suicide and other forms of violence are the lowest for any week of the year—only a total of 20, as compared with 50 during the previous week and 51 in the corresponding week a year ago. There is a decrease from the 2,063 hospital patients of the week before to 1,862, although there is a slight increase of pneumonia and typhoid fever cases.

Proposed Polyclinic for Denver.—If the plans of the Woman's Medical Society of Denver reach fulfillment there will soon be a free dispensary for women in the poorer districts of the city, where women physicians will be in charge. At a meeting held December 5th in the Woman's Club building it was decided to push plans for the dispensary with as much dispatch as possible. The polyclinic will be handled as follows: Surgery, Dr. Minnie C. T. Love and Dr. Katherine Polly; obstetrics, Dr. Alice Moore and Dr. Clegg; gynæcology, Dr. Newby, Dr. Julia Fitzhugh, and Dr. Fantz; eye and ear, Dr. Hoffman; nose and throat, Dr. Hamley; general medicine, Dr. Calvert and Dr. Wintermeyer; chest and stomach, Dr. Sears; children's diseases, Dr. Beers and Dr. Burke; electricity, Dr. Teele; bacteriology, Dr. Abbott.

New York State Sanitary Officers.—The fourth annual conference of these officials was held in Albany, December 14th and 15th, State Commissioner of Health, Daniel Lewis, presiding, with the following programme:

Hygiene of School Houses, by Mr. Frank H. Wood, chief of bureau of inspection, State department of education; Testing the Eyes of School Children, by Dr. P. A. Callan, surgeon to the New York Eye and Ear Infirmary; The Present Status of the Law Relating to the Vaccination of School Children, by the Honorable Sanford T. Church, Deputy Attorney General; Pathogenic Protozoa—A Series of Recent Investigations (illustrated), by Dr. R. M. Pierce, director of the Bender Hygienic Laboratory; Diagnosis of Smallpox, by Dr. F. C. Curtis, professor of dermatology, Albany Medical College; Legal Methods and Forms of Procedure in Sanitary Work, by Major C. H. Hitchcock, of Binghamton. Discussion by Dr. I. A. Hix, health officer of Binghamton; Dr. W. D. Greene, health officer of Buffalo, and others. Sewage Disposal, by Dr. D. C. Moriarta, health officer of Saratoga; Antistreptococcic Serums, by Dr. H. D. Pease, director of the State Antitoxine Laboratory; Experience with Two Cases of Tetanus, by Dr. John Edwards, health officer of Gloversville; Eight Years' Experience with Formaldehyde Disinfection, by Dr. Wallace Clark, health officer of Utica; Testing of Illuminating Oils, by Dr. W. G. Tucker, professor of chemistry, Albany Medical College; Sanatoria for Consumptives, by Dr. Thomas Darlington, president board of health of New York city; The Duties of Health Officers in Regard to the Adulteration of Foods, by Dr. H. W. Wiley, chief of bureau of chemistry, United States Department of Agriculture.

International Medical Congress.—Dr. J. H. Musser, president of the American Medical Association, at the request of the secretary of the International Medical Congress, which meets in Lisbon in 1906, and on approval of the house of delegates, has appointed the following members of the American Committee of Arrangements:

Dr. Frank Billings, of Chicago; Dr. Herman M. Biggs, of New York; Dr. Herbert L. Borell, of Massachusetts; Dr. William T. Councilman, of Boston; Dr. William H. Carmalt, of Connecticut; Dr. Richard C. Cabot, of Massachusetts; Dr. N. S. Davis, Jr., of Illinois; Dr. Charles H. Frazier, of Philadelphia; Dr. R. H. Fitz, of Massachusetts; Dr. W. E. Fischel, of Missouri; Dr. Charles Lyman Greene, of Minnesota; Dr. Ramon Guiteras, of New York; Dr. H. A. Hare, of Pennsylvania; Dr. L. Hektoen, of Chicago; Dr. Edward Jackson, of Denver; Dr. E. J. Janeway, of New York; Dr. A. Jacobi, of New York; Dr. George B. Johnston, of Richmond, Va.; Dr. W. W. Keen, of Philadelphia; Dr. Howard A. Kelly, of Baltimore; Dr. Charles Kollock, of South Carolina; Dr. L. S. McMurtry, of Louisville, Ky.; Dr. James H. McBride, of California; Dr. A. T. McCormack, of Bowling Green, Ky.; Dr. K. A. Mackenzie, of Portland, Ore.; Dr. John Herr Musser, of Philadelphia; Dr. J. B. Murphy, of Chicago; Dr. R. Matas, of New Orleans; Dr. William Osler, of Baltimore; Dr. Charles Powers, of Colorado; Dr. J. B. Roberts, of Pennsylvania; Dr. W. L. Rodman, of Pennsylvania; Dr. M. H. Richardson, of Boston; Dr. Charles A. L. Reed, of Ohio; Dr. H. M. Sherman, of San Francisco; Dr. Frederick C. Shattuck, of Boston; Dr. George H. Simmons, of Chicago; Dr. Charles G. Stockton, of New York; Dr. George Sternberg, of Washington, D. C.; Dr. Victor Vaughan, of Ann Arbor; Dr. John A. Witherspoon, of Tennessee; Dr. J. Collins Warren, of Massachusetts; Dr. J. C. Webster, of Chicago; Dr. William H. Welch, of Baltimore; Dr. John A. Wyeth, of New York. The Surgeons General of the Army, Navy, and United States Public Health and Marine Hospital Service. The presidents of the American Ophthalmological, Otological, Gynæcological, Physiological, and Pædiatric societies. The presidents of the American Dermatological, Laryngological, Surgical, Climatological, Neurological, Medicopsychological, and Orthopædic associations. The presidents of the Association of American Anatomists, Association of American Physicians, American Association of Genitourinary Surgeons, American Association of Pathologists and Bacteriologists, New York Academy of Medicine, College of Physicians, Philadelphia, Cook County Medical Society, Chicago, and the Society of Medical Improvement, Boston.

American Public Health Association.—The thirty-second annual meeting of this association will be held in the beautiful capital city of Havana, Cuba, January 9 to 13, 1905. The fare from Chicago to Havana and return is $69.00.

After a careful perusal and study of the various routes in the Mississippi Valley, taking Chicago as the initial, or starting point, the proposed itinerary has been suggested as incomparable in service, speed, safety, comfort, daylight view of picturesque and historic scenery, etc., with through sleeping cars without change—Chicago to Jacksonville; thence to Port Tampa, Key West, and Havana. At Terre Haute, Evansville, and Nashville, the excursion will be joined by delegates and their wives from Indianapolis, Cincinnati, and Louisville, also from St. Louis and intermediate points. Buffet meals can readily be obtained anywhere *en route.* Liberal stop over privileges will be granted if desired at all principal points, to visit St. Augustine and other cities *en route.* Havana has many fine places of amusement. The *Teatro Nacional Tacon* is the third largest, and one of the best ventilated theatres in the world. It is the home of opera in Havana The *Albisu* is the home of one act comedies. At the *Marti* (a summer theatre), surrounded by a palm garden, it is announced that some of the sessions of the association will be held. There are a number of magnificent churches in the city. The most fashionable is *La Merced,* built in 1746. The Cathedral, built in 1724, contains the vault in which the remains of Christopher Columbus rested. The markets are delightfully attractive, and are good places to purchase souvenirs of Havana. A drive to the villas of Vedado, The Cerro, and Tulipan, the fashionable residence districts, is especially fine. Also to Colon, the beautiful cemetery, where tombs, monuments, and statues of marvelous beauty adorn this city of the dead. Among other points of interest briefly enumerated are: The University of Havana and Academy of Medical Sciences. Incidentally, mention is made of *El Mes Medico,* the principal medical journal in Havana, and its corps of able editors; The Palace, official residence of President Palma, is a magnificent building with its spacious grounds; House of Representatives; Post Office; Custom House; Presidio (or penitentiary); Recogidas or woman's prison, the place from which Miss Cisneros escaped; the Military and Paula Hospitals; Colon Park; Albears Park; Central Park; Plaza de Armas, fronting the palace; The Prado, Carlos Tercera, and other promenades, where you may see *la cubana* in all her dark eyed loveliness, with showy laces and mantillas falling gracefully over head and shoulders. The principal hotels are: Inglaterra (headquarters of the association), American and European plans; Passaje, Telegrafo, Thrower, Mascotte, Isla de Cuba, Zabala, and Maison Dorée, American plan; Louvre, Florida, and International, European plan. From any of these hotels one may walk comfortably to the theatres, to the Prado and other prominent places. While in Havana delegates will be guests at social functions, entertainments, and excursions, provided by the Cuban committee. Physicians are hereby cordially invited to join with others in Chicago to take this delightful trip, which has never previously been planned under such favorable auspices. For further information regarding railroad rates, sleeping car and steamship reservations, please apply to Ross Bookwalter, City Passenger Agent, Chicago & Eastern Illinois Railroad, 91 Adams Street, Chicago, Ill., or to Liston H. Montgomery, M. D., 92 State Street, Chicago, Ill.

Pith of Current Literature.

SEMAINE MEDICALE.

October 19, 1904.

1. Progressive Lacunar Cerebrosclerosis of Arterial Origin, By Grasset.
2. Surgical Treatment of Cirrhosis of the Liver, By Monprofit.
3. Arterial Tension in Disease, By Bosc and Vedel.

1. **Cerebrosclerosis.**—Grasset states that the subjects of this disease have at first a general or local arteriosclerosis. Hæmorrhage and softening from arterial obliteration are occasional complications. If the circulation in the brain is not suppressed, there is at least a lacunar dystrophic sclerosis of arterial origin. This cerebral lesion consists at first in an atrophy of the nerve elements, and is followed by their disintegration with a lacunar formation in the centre of which is a diseased vessel which remains pervious. A cicatricial sclerosis or a cyst may be the resulting anatomical condition. The disease is progressive, however, because new lacunar foci are formed, and other portions of the brain are attacked by analogous processes, though, it may be, without lacunæ.

2. **Surgical Treatment of Cirrhosis of the Liver.**—Monprofit summarizes the various surgical procedures for this condition as paracenthesis for the evacuation of the ascitic fluid, laparotomy with drainage of the peritoneal cavity, portocaval anastomosis first performed on a human subject by Vidal in 1903, and omentopexy, or Talma's operation, by which the omentum is secured to the abdominal wall, and anastomosis is established between the veins of the portal system and those of the abdominal wall, the latter depending upon the vena cava. The oblique abdominal incision has given the best results. The omentum may be secured to the parietal peritonæum, it may be introduced between the recti muscles, or it may be attached under the skin of the abdomen. The abdominal dressing should exert as much pressure as possible upon the tissues which are implicated. Peritonitis, compression of the intestine, and hernia are possible accidents. The mortality has been about 37 per cent., and a cure has resulted in one third of the cases.

3. **Arterial Tension in Disease.**—Bosc and Vedel divide their subject into hypertension and hypotension. The former is indicated by a manometric pressure of 18 centimetres of mercury in the adult and 20 to 21 in the aged. Normal causes which regulate the pressure are increase in the volume of blood, energic action of the cardiac muscles, and modifications in the peripheral vessels. The symptoms which accompany hypertension are due to mechanical, reflex, or toxic causes. Partial hypertension may be due to arteritis. Some of the symptoms are hemianopsia, aphasia, headache, amamosis, convulsions, etc. Treatment should usually be continued long after the symptoms have disappeared. A milk diet with plenty of vegetables is usually indicated, and laxatives and purgatives will usually be required. In hypotension the manometric pressure may be from 6 to 13 centimetres. The causes are usually of vasomotor or toxic origin. Hydrotherapy and saline injections are desirable means of treatment. Adrenalin has usually been found inadequate, and is not without danger.

PRESSE MEDICALE.

November 5, 1904.

Contagiousness in France of Amœbic Dysentery, By Dopter.

Amœbic Dysentery.—Dopter says it is now certain that there are several varieties of dysentery, the chief being bacillary dysentery and amœbic dysentery, the former being common in temperate climes, although sometimes found in the tropics, while the latter is confined almost entirely to the tropics and is endemic there. It is supposed not to be contagious in France and to be found only in patients who have resided in the warm colonies, but Dopter cites cases to prove that this idea is fallacious and dangerous.

ZENTRALBLATT FUER INNERE MEDIZIN.

November 5, 1904.

1. Tetanus with Paresis of the Eye Muscles, By E. Zak.

1. **Tetanus.**—Zak narrates the case of a young woman who suffered from a mild attack of tetanus following an injury to the foot. During the course of the disease, a paralysis of the superior oblique muscle of the right eye developed which lasted for some time after the tetanus had disappeared. The occurrence of paresis in tetanus, especially of the eye muscles, is a rare occurrence. The most common affection of this kind is a paresis of the facial muscles.

RIFORMA MEDICA.

November 9, 1904.

1. Further Researches on the Rôle of Negri's Bodies in the Ætiology of Rabies, By Luigi D'Amato.
2. Changes in the Processes of Secretion in the Epithelium of the Convoluted Tubules as the Result of Formaldehyde Poisoning, By Girolamo Lionti.
3. The Therapeutical Value of Barium Chloride, By Ernesto Pesci.

1. **Negri's Bodies and Their Significance in Rabies.**—D'Amato concludes as follows from a detailed study of the question as to the meaning of Negri's bodies in the causation of hydrophobia. (These bodies are special structures found by Negri in the cells of the central nervous system of animals affected with rabies) : If some nervous tissue of a rabid animal be deposited upon the cerebral cortex of a rabbit, the virus will be found localized at this site during the entire period of incubation, and will be still found there when the more distant portions of the nervous system have already become affected. If a cornu ammonis rich in Negri's bodies be deposited upon the cerebral cortex of a rabbit, these bodies do not disappear until the fourth or fifth day after the inoculation, and do not present any modifications which would point to any biological activity. They

simply take part in the general necrosis which takes place in the inoculated tissue. During the following days, when the cornu ammonis is gradually disappearing, it is no longer possible to recognize the Negri's bodies. Neither are these bodies to be found in the leptomeninges which cover the inoculated spot, nor in the cortex which underlies it. The eosinophile granules which are observed in these cases are not derivatives of Negri's bodies, as they occur also when a non-hydrophobic nervous tissue is inoculated. Negri's bodies, when observed in hanging drop preparations on warmed slides, do not exhibit any spontaneous movements. Neither do they exhibit such movements when they are allowed to remain for some days within the peritonæum of an animal, enclosed in sacs of celloidin. If pieces of a cornu ammonis rich in Negri's bodies are placed in a celloidin sac and kept in a peritoneal cavity for some time, the Negri's bodies do not show any biological changes, but undergo necrosis. Therefore, we have no reasons, as yet, to think of the Negri's corpuscles as being ætiological factors in rabies.

2. **Action of Formaldehyde on the Kidneys.**—Lionti confirms the observations of Filippi and Molotese, and of Riggio, who found that formaldehyde is eliminated by the kidneys, and produces severe lesions in these organs. Lionti made some interesting observations on the secretory function of the epithelium of the convoluted tubules, as affected by formaldehyde, and found that the cell body loses its secretory powers first, while the nucleus remains as the last citadel, and continues to secrete normally to the last. He found also that the granular material which is found in the tubules in pathological conditions is nothing but the exaggeration of a condition which exists normally. A similar granular substance was present in the tubules of healthy animals whose kidneys were fixed and stained according to the most approved rules of technics. It is not true, therefore, that a normal kidney should always show perfectly empty tubules.

3. **Medicinal Value of Barium Chloride.**—Pesci confirms the experiments of Schedel, and others, who employed barium chloride as a cardiac stimulant, and for other therapeutical purposes. He found that barium chloride acts favorably upon each of the following symptoms independently of one another: The lowered blood pressure, the pulse, the anuria, the dyspnœa, the cyanosis, and the œdemas. It is a question how barium chloride produces these effects. Certainly not through a direct influence upon the heart, for this may be excluded from the irregular manner in which it acts on the pulse itself. On the other hand, the addition of barium chloride to other true heart stimulants exalts the effects of the latter. The German authors believe that the essential effect of barium chloride is to raise the maximum blood pressure. On the other hand, the present author thinks that this effect is exercised indirectly through raising the arterial tone, and thus increasing the medium pressure. He promises to demonstrate this conclusively in another paper, and to show that barium chloride is a stimulant to the muscular coats of the arteries. Clinically he gives the following indications for its use: (1) In old or acute pleuritic effusions, as an excellent diuretic. The results are prompt and constant, and are superior to those obtained with any other diuretic. (2) In the first period of loss of compensation in valvular disease of the heart. It stimulates the arterial coats of these cases, and thus enhances the work of the weakened ventricle. (3) In infectious diseases in which the pulse tends to become dicrotic, owing to the relaxation of the arterial walls, and to the weakening of the poisoned myocardium. (4) The remedy is contraindicated in all cases in which the arterial pressure is very high and the force of the heart very weak.

GAZZETTA DEGLI OSPEDALI E DELLE CLINICHE

October 30, 1904.

1. Surgical Intervention in Round Ulcer of the Stomach and in Pylorospasm, By Dario Maragliano.
2. Pernicious Typhoid. Form of Malaria. Contribution to the Study of Phagocytosis in Malarial Infection, By Ferrucio Bindi and Mario Giorgi.
3. On Spondylitis Deformans, By Attilio Curcio.

1. **Surgical Aid in Ulcer of the Stomach and in Pylorospasm.**—Maragliano, of Krause's Clinic in Berlin, considers in detail the indications for operation in ulcers of the stomach. The occurrence of peritonitis due to perforation, or of severe hæmorrhage should be regarded as indications *per se*, as occurrences menacing life. Of the ordinary symptoms of gastric ulcer, hæmatemesis, vomiting, and hyperacidity, none in itself demands operative treatment, unless the condition of the patient threatens to become very bad, and unless these symptoms are very severe. The real indication for operative interference in gastric ulcer is the failure of a strictly rational internal treatment. The surgical treatment is only permissible when the organism has shown that it cannot overcome the disease with the aid of medicines, diet, etc. On the other hand, it is a great mistake to let these cases go too far before interfering surgically. The author has in his clinic, patients who are so emaciated and anæmic that they cannot be operated upon, whereas this could be done with impunity a few weeks before. Another indication for operation during the earlier stages of the disease is the presence of a pyloric stenosis (pylorospasm) which hinders the emptying of the stomach, or else a marked muscular atony, because wherever there is motor insufficiency the medical treatment will do scarcely any good. As regards the operation to be selected, the author says that the excision of the ulcer and the closure of the wound is not the best operation. While offering temporary relief it does not remove the cause of the ulceration. There are often many ulcers, and the existence of hyperacidity is against a permanent healing of the lesions. What is needed is to create new mechanical conditions in the stomach, and this is best done by means of gastroenterostomy. This

is a rational treatment which not only relieves the symptoms, but also removes the disturbances in motility. Among sixty patients operated upon in this manner at the Augusta Hospital the author did not note any postoperative complications, and in none did the dreaded septic ulcer of the jejunum appear which has been observed in some cases after this operation. In order to obviate this danger Kocher recently suggested lateral gastroduodenostomy. Still another operation used is pyloroplasty, but the results of this are not as favorable as those of the other methods. Finally, jenunostomy may be used, and offers many advantages, notably that it leaves the stomach at rest and allows the ulcers to heal. The ideal combination is that of gastroenterostomy with a jejunal fistula. This offers all the advantages of each of these methods. Feeding through the jejunal fistula succeeds well when rectal feeding fails utterly.

3. **Spondylitis Deformans.**—In reporting six cases of this rare disease, also known as "spondylite rhizomélique," Curcio calls attention to the difficulty of tracing its ætiology. The causes which have been invoked include articular rheumatism, gout, syphilis, and gonorrhœa. The only cause of these which has any value clinically is rheumatism, and this cannot always be found. It should be noted that the joints involved in these cases include the articulations at the roots of the limbs, and the joints of the spinal column. On the other hand, rheumatism prefers the joints at the extremities of the limbs. Even when spondylitis does not assume the deforming type, there is always deformity in the form of intra- and circumarticular changes, and alterations in curvature and posture. The disease does not present in its history the acuter attacks of rheumatism and gout which are noted in these diseases. No crepitus can be made out in any of the joints in spondylitis deformans, and the joints involved are not rigid during anæsthesia. These are some of the points in the diagnosis of this rare condition which is apt to be mistaken for rheumatism and allied diseases.

ROUSSKY VRATCH.

November 6, 1904.

1. On Syphilis of the Heart, By TH. I. ROMANOFF.
2. On Hallucinatory Obsessive Delusions and on Obsessive Halluciations, By S. A. SOUKHANOFF.
3. On the Transplantation of the Ureters with Resection of the Bladder in Complete Removal of a Cancerous Uterus by the Abdominal Method (Wertheim's Operation), By F. N. TAVILDAROFF.

1. **Syphilis of the Heart.**—Romanoff reminds us of the frequency of syphilis of the heart, and says that physicians should think of the possibility of syphilis, whenever the ætiology of a cardiac lesion is in question, just as they now think of syphilis in connection with nervous diseases. He reports two interesting cases. In the first of these the patient was a man, aged thirty-one years, who showed a marked blowing murmur over the apex of the heart, a distention of the heart, an enlarged liver, and a perforation in the nasal sæptum. The diagnosis was syphilis in the tertiary stage and mitral insufficiency. Antisyphilitic treatment was given, but was not well borne and did not produce the expected improvement. The patient died of heart failure after a short time. On autopsy, adhesions were found in the pleura, and fluid in the pericardium. The pulmonary valve was greatly narrowed by the presence of a large gumma. Gummatous nodules were also found in the pulmonary artery, and this vessel was greatly narrowed by connective tissue growth. This case is unusual in many respects, as syphilis here led to a well marked valvular lesion, and as a stenosis of the pulmonary artery, a very rare lesion, was present. The second case reported was that of a woman who had died suddenly. On autopsy the heart muscle was found to be the seat of numerous patches of connective tissue degeneration, but the endocardium was not markedly altered. On microscopical examination, the myocardial patches of connective tissue proved to be the seats of scattered collections of round cells among the connective tissue fibres, and the arteries of the myocardium in these places were affected with obliterating endarteritis. The picture was unmistakably one of an endarteritis which had been going on simultaneously with the myocardial changes, as the result of a common cause. The cause of these lesions, according to the author, was probably syphilis, and had brought about the sudden death of the young woman. The absence of syphilitic lesions in other parts of the body, however, made the diagnosis doubtful.

2. **Hallucinations and Delusions.**—Soukhanoff considers the question as to the connection of obsessive hallucinatory delusions and obsessive hallucinations, a connection the existence of which has been denied by some authorities, who regard the two phenomena, hallucinations and delusions, as more or less independent mental disturbances. Soukhanoff thinks that this group of mental phenomena should be classified into three divisions: There are, first, hallucinatory obsessive delusions of the senses, which depend simply upon an "ideoobsessive constitution," and not necessarily upon mental disease. Next, there are the obsessive hallucinations which are frequently observed in hysterical persons, and finally there are the marked hallucinatory and illusory obsessive delusions, which develop during the melancholic stage of insanity. The latter have the fundamental characteristics of the delusions which occur in the "ideoobsessive constitution." The condition which the author designates as "ideoobsessive constitution" is evidently identical with that which Pierre Janet styled "psychasthenia." When this state of mind exists, uncomplicated by mental disease proper, the subject is apt to have delusions which enter as obsessive hallucinations before the field of consciousness. On the other hand, obsessive hallucinations exist primarily in hysterical and epileptic subjects and are much more vivid than obsessive delusions. Although many of these patients know that this is a mor-

bid phenomenon and that the visions do not exist in reality, they still believe and feel at the time as though the hallucinations were realities. Thus, when they get hallucinations of obscene subjects, they fear that they will pronounce obscene words, and often bite their tongues to prevent this.

3. **Transplantation of the Ureters.**—Tavildaroff concludes as follows from a study of transplantation of the ureters in connection with total abdominal hysterectomy for cancer of the uterus: The transplantation of the ureters into the bladder (ureterocystoneostomy) is the operation of choice in all injuries of the ureter which divide its continuity. In transplanting the ureters our greatest care should be to preserve the vitality of these canals. This is done by closing the peritoneal incision over the transplanted ureter, by minimizing the pressure over it, and by limiting to the utmost necessity the number of sutures employed. Cystoscopic examination is necessary for the accurate determination of the results of ureteral transplantation. In the radical removal of the uterus by the abdominal route for cancer of the womb, it is best to remove the cancerous tissues lining the cavity of the uterus by means of a curette, and then applying the Paquelin cautery. If the parametrium is not extensively involved in the cancerous process, it is best to look for the ureter at the free border of the ovary, and to ligate the appendages and cancerous tissue *en masse*. On the other hand, when the parametral tissues are extensively involved, we should incise the peritonæum between the uterus and the bladder and seek the ureter there. The uterine artery should be then ligated separately. The peripheral ends of the sacrouterine ligaments should be carefully ligated, as they often give rise to considerable hæmorrhage.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

December 17, 1904.

1. The Physician's Calling and Education, By JOHN LANCASTER SPALDING.
2. The Surgical Treatment of Bilocular Uterus and Bifid Vagina, By H. W. LONGYEAR.
3. A Plea for Conservative Operations on the Ovaries, from a Neurotic Standpoint, with Report of Cases. By JAMES W. COKENOWER.
4. Management of Acute Stages of Abdominal Inflammation, By GEORGE ERETY SHOEMAKER.
5. Enuresis in Children, By MAURICE OSTHEIMER and I. VALENTINE LEVI.
6. Hæmaturia as the Earliest or Only Symptom of Infantile Scurvy, By JOHN LEVETT MORSE.
7. A Summer's Experience with Infantile Dysentery (*To be continued*), By J. H. MASON KNOX, JR.
8. The Treatment of Purulent Conjunctivitis, By MYLES STANDISH.
9. Tumors of the Orbit, By H. V. WURDEMANN.
10. Postoperative Infection of the Eye, By JOSEPH W. WHITE.
11. Septic Thrombosis of the Cavernous Sinuses. With Report of Three Cases, By E. C. ELLETT
12. Presbyopia, By E. G. GARDINER.
13. Dengue in the Isthmian Canal Zone; a Preliminary Report, By RICHARD LIGHTBURN SUTTON.

2. See this *Journal*, Vol. LXXX, page 133.
3. See this *Journal*, Vol. LXXX, page 134.
4. See this *Journal*, Vol. LXXX, page 135.
5. See this *Journal*, Vol. LXXX, page 138.
6. See this *Journal*, Vol. LXXX, page 328.
7. See this *Journal*, Vol. LXXX, page 138.

BOSTON MEDICAL AND SURGICAL JOURNAL.

December 15, 1904.

1. The Value of the Physiological Principle in the Study of Neurology, By JAMES JACKSON PUTNAM.
2. A Case of Diffuse Encephalitis Showing the Pneumococcus, By W. N. BULLARD and F. ROBERTSON SIMS.
3. Flies and Tuberculosis, By FREDERICK T. LORD.
4. Innocent Cases Reported as Diphtheria, By HIBBERT WINSLOW HILL.
5. Remarks on the Jurisprudence of Civil Malpractice, Based Principally on the Decisions Rendered by French Courts, By CHARLES GREENE CUMSTON.

2. **Diffuse Encephalitis.**—Bullard and Sims give the following summary of the case they report: "After a month of severe bronchitis in a man of fifty, there develops a group of cerebral symptoms, weakness and mild delirium, followed by flaccid paralysis of the left side, with rigidity on the right, and incontinence. Death on the seventh day of the cerebral symptoms, after gradual failure and coma, with elevated temperature. At autopsy extensive diffuse encephalitis and bronchitis, with bronchopneumonia (pneumococcus). The pneumococcus was found by culture, free in the tissues, and within the phagocytes of the cerebral lesion. The lesions are related to branches of the cortical arterial system of both hemispheres, and are marked on the right side, where almost the whole of the subcortical projection system is acutely involved, by œdema and punctiform hæmorrhagic foci. The lesions are histologically simple, consisting of accumulations, within and surrounding the adventitia, of phagocytic cells of the type familiar in cerebral and meningeal lesions, and small numbers of lymphoid and plasma cells. The large cells contain vacuoles, detritus of myelin, and an occasional pair or short chain of diplococci. There was no evidence of acute leptomeningitis or of ependymal changes."

3. **Flies and Tuberculosis.**—Lord reports in detail a number of experiments he has made in order to determine to what extent if any flies may be the disseminators of tuberculosis. He concludes: (1) Flies may ingest tuberculous sputum and excrete tubercle bacilli the virulence of which may last for at least fifteen days. (2) The danger of human infection from tuberculous fly specks is by the ingestion of the specks on food. Spontaneous liberation of tubercle bacilli from fly specks is unlikely. If mechanically disturbed, infection of the surrounding air may occur. As a corollary to these conclusions, it is suggested that: (3) Tuberculous material (sputum, pus from discharging sinuses, fæcal matter from patients with intestinal tuberculosis, etc.) should be carefully protected from flies lest they act as disseminators of the tubercle bacilli. (4) During the fly season, greater attention should

be paid to the screening of rooms and hospital wards containing patients with tuberculosis and laboratories where tuberculous material is examined. (5) As these precautions would not eliminate fly infection by patients at large, food stuffs should be protected from flies who may already have ingested tuberculous material.

4. **Diphtheria.**—Hill, from the statistics of the Boston Board of Health, concludes that 38 per cent. of cases diagnosticated as diphtheria by the average physician are not diphtheria, but something else. This is so well understood in Boston that the Board of Health refuses to accept the diagnosis of diphtheria unless it is backed up by a positive culture.

AMERICAN MEDICINE.

December 17, 1904.

1. On Hypernephroma, By W. W. Keen, G. E. Pfahler, and A. G. Ellis.
2. The Value of the Physiological Principle in the Study of Neurology, By James Jackson Putnam.
3. The Eye and the Digestive System, By Mark D. Stevenson.
4. Early Recognition of the Therapeutical Virtues of Iron, By John Knott.
5. Some Results of Röntgen Ray Treatment, By A. R. Rainear.
6. The Röntgen Rays in the Treatment of Tuberculosis, By J. Rudis-Jicinsky.

1. **Hypernephroma.**—Keen discusses the surgical treatment of hypernephroma; Pfahler its symptomatology and diagnosis, and Ellis its pathology. Hypernephroma is the name given to tumors of the adrenal glands whether such tumors arise in the suprarenals themselves or in the so called "rests." Prior to 1883 these tumors were called by many different names, i. e., lipoma, sarcoma, adenoma, etc. Two cases of hypernephroma are reported in full and one case partially. In both the cases that came under Keen's observation the tumors at operation were thought to be a sarcomata.

2. **The Physiological Principle in the Study of Neurology.**—Putnam considers his subject under three heads: (1) The limitation in usefulness of those methods of medical investigation which are based on the assumption that disease is always a localized process. (2) The importance of the part played in disease by readjustment and adaptation on the part of the organism, and the need of cultivating physiological conceptions as a means toward a proper understanding of these processes. (3) The impropriety of attempting to draw fundamental distinctions between "functional" and "organic" disorders, and the significance of the hypothesis of "energies" as applied to living organisms and to disease. The paper is of the philosophical type and does not lend itself to abstracting.

3. **The Eye and the Digestive System.**—Stevenson imagines that each person is endowed with a more or less fixed quantity of nervous energy. If all the organs are normal there is enough nervous energy to go round and there is no bodily discomfort. If the eyes happen to be abnormal they will require more than their normal share of nervous energy and will get it by robbing the digestive system of its share. This will give rise to nausea, loss of appetite, and even constipation. Flatulence, pyrosis, hyperæsthesia, eructations, colic, etc., are sometimes caused in the same way. Since it is a poor rule that won't work both ways, it follows that digestive disturbances may influence the eyes.

4. **Iron.**—Knott's paper, as implied by the title, is mainly an historical study. The author asserts that iron is chiefly of use for the treatment of chlorosis. In giving iron one should be careful to avoid constipation. Iron given in conjunction with arsenic will give better results than when given alone.

6. **The Röntgen Rays and Tuberculosis.**—Rudis-Jicinsky has been trying the effect of the x ray on cases of pulmonary and bone tuberculosis. His experiments have not as yet been numerous enough to warrant basing conclusions upon their evidence. On the whole, the author holds that his experiments justify more than ordinary hopefulness regarding this application of the x rays.

MEDICAL RECORD.

December 17, 1904.

1. Alcohol in the Tropics, By Major Charles E. Woodruff.
2. Twenty Years' Experience, with Manual Dilatation of the Os and Cervix Uteri to Effect Immediate Delivery in the Latter Months of Pregnancy. With Presentation of a New Obstetrical Uterine Dilator, By Philander A. Harris.
3. An Interesting Case of Tuberculosis of the Larynx, By E. Harrison Griffin.
4. The Transmission of Syphilis by Barbers, By William T. Belfield.
5. Report of a Case of Tetanus Following Labor, By A. Strachstein.

1. **Alcohol in the Tropics.**—Woodruff, who is a surgeon in the United States Army and has had opportunity to observe personally the effect of alcohol on northern races dwelling in the tropics, asserts that a little alcohol, with meals, is not only not injurious, but is of very great benefit. He presents at length his reasons for reaching his conclusions and deplores the fact that prejudice and ignorance have cost so many lives. The paper, as a whole, is a strong plea for the reestablishment of the army canteen.

2. **Dilatation of the Cervix Uteri.**—Harris devotes the greater part of his paper to the description of his new uterine dilator. This instrument consists essentially of two branched dilators so made that they can be fastened at right angles to each other. With half the instrument the cervix is stretched in a straight line, then the other half is placed in position and opened in a plane at right angles to the first. The cervical orifice will then assume a quadrilateral shape.

3. **Tuberculosis of the Larynx.**—Griffin's patient had three distinct attacks of tuberculous laryngitis in which the stage of ulceration was reached. During each attack the patient left the city and rapidly recovered. The author believes that too energetic local treatment in such cases is apt to be

followed by poor results. The best line of treatment is the same as the one now so generally adopted for the pulmonary type of tuberculosis; that is, outdoor living, good food, and good hygiene.

4. **Syphilis.**—Belfield believes that syphilis is acquired in barber shops oftener than is generally supposed. At times the primary sore goes unnoticed and it is therefore important to think of the possibility of syphilis in all cases of sore throat accompanied with fever. The author asserts his belief that circumcision is almost infallible as a prophylactic measure against syphilis.

5. **Tetanus.**—Strachstein reports a case of tetanus which developed fifteen days postpartum. The patient recovered. The treatment consisted in the subcutaneous injection of Board of Health antitetanic serum. In all the patient received 720 cubic centimetres. The author recommends that large doses of the serum be used, say 20 cubic centimetres a day.

MEDICAL NEWS.

December 17, 1904.

1. Diagnosis of Disease in Children, By J. Madison Taylor.
2. Symmetrical Enlargement of Parotid and Lacrymal Glands: Nodular Iritis, By Colman W. Cutler.
3. Overlapping the Aponeuroses in the Closure of Wounds of the Abdominal Wall, By Charles P. Noble.
4. The Association of Cancer and Tuberculosis, By W. A. Bastedo.
5. The Minin Ray, By William Gray Schauffler.
6. Tropical Malaria, By John V. Shoemaker.

1. **Diseases of Children.**—Taylor, among many other things, notes with approval the method proposed by Arnold for facilitating diagnosis in diseases of children. This method consists in noting the condition of the back. On inspecting the back of one who is, and has always been, perfectly sound there will be seen (if certain attitudes are assumed to bring them into prominence), the spines of the vertebræ in normal alignment, distance apart, and degree of posterior projection. If there has been a history of long continued or recurrent disturbances of the internal organs these are frequently revealed by alterations in the tonus of the blood vessels of those muscles and other tissues innervated by, or lying adjacent to, the governing segments of the cord from which the organs at fault are reflexly controlled through their vasomotor connections. The form change exhibited in an atrophy of some, infiltration and thickening of others; and if long continued by asymmetries of the vertebræ, the spines apparently pointing in different directions. If the lesions have become chronic the spines are found separated, due to relaxation of the posterior ligaments, until between two or more marked depressions appear, or several are depressed below the normal line of projection. This disorganization of the vertebræ is more apparent than real, the asymmetries being due to loss of tone and relaxation in the supporting ligaments, will disappear later as is proved by a prompt restoration of alignment under appropriate treatment. It requires very considerable practice to enable one to take advantage of this method of diagnosis. The author has had several assistants that became very expert at the method. He himself is not as yet sufficiently expert to feel entirely confident of the precise significance of many of the changes he is often able to observe.

2. **Enlargements of Parotid and Lacrymal Glands.**—Cutler reports his case in very considerable detail. The nodular iritis in conjunction with the other lesions makes the case quite unique and in the author's opinion seems conclusive proof that the trouble was due to bacteria. Abstracts are given of about a dozen cases which strongly resemble the one he reports. The condition is extremely rare and very poorly understood.

3. **The Closing of Wounds.**—Noble has been using, since 1897, the method he now advocates for closing the aponeuroses in all abdominal wounds. He believes that if firm union of the fasciæ is desired their edges should be made to overlap from one third to one half inch. This can be easily done by catching the aponeurosis one one side of the wound with a stitch, after the manner of the Lembert intestinal suture, and then passing the needle from below upward through the aponeurosis on the other side of the wound. When this suture is made taut it slides one part of the aponeurosis over the other.

4. **Cancer and Tuberculosis.**—Bastedo reports two cases of associated cancer and tuberculosis which were observed at St. Luke's Hospital. He has also looked up the literature for other such cases. From his study he concludes: (1) Cancer and tuberculosis not infrequently occur together in an active state, and may be intimately associated in the same tissue. (2) There is probably neither specific favoritism nor specific antagonism between the two types of disease. (3) There are a few reported cases in which one of the affections seems to have exerted a modifying influence on the course of the other. (4) Lupus favors the development of epithelioma. (5) Cancer is more common among those with latent tuberculosis than among others at the cancer period of life. (6) The common age for cancer is not the common age for active tuberculosis (Cruveilhier, 1828). (7) The common sites of cancerous involvement are mostly not those of tuberculous involvement and vice versa (Rokitansky, 1838). (8) A family history of tuberculosis is more frequent in the cancerous than in the general community, and there may be some hereditary relation between the two. (9) A latent tuberculous process in a lymph node may become active when a cancer develops in the neighborhood. (10) Lymph node enlargement in the vicinity of a cancer is not always cancerous (Claude, 1899), and may be solely tuberculous.

BRITISH MEDICAL JOURNAL.

December 3, 1904.

1. The Treatment of Cancer. (*Bradshaw Lecture*), By A. W. M. Robson.
2. The Life History of Saprophytic and Parasitic Bacteria and Their Mutual Relation. (*Horace Dobell Lecture*), By E. Klein.
3. The Micrococcus Rheumaticus: Its Cultural and Other Characteristics, By J. M. Beattie.

4. Afebrile Enteric Fever, By G. JUBB.
5. Case of Congenital Absence of Continuity Between the Large and Small Intestines, By C. H. SOUTER.
6. Infantile Mortality: Its Causes and Prevention, By G. C. H. FULTON.

3. **Micrococcus Rheumaticus.**—Beattie has repeated and confirmed the work of Beaton and Walker on the microscopical and cultural characteristics of the organism known as *Micrococcus rheumaticus*. He obtained the organism from two sources: one from the synovial membrane of a case of acute rheumatism; the other from a culture supplied by Dr. Paine. The organism is a short micrococcus which occurs in the tissues and in cultures in pairs or in short chains. It is smaller than the ordinary streptococcus, has no capsule, and degeneration forms are relatively infrequent. It stains with all ordinary dyes, and retains Gram's stain. The cultural characteristics corresponded exactly with those noted by previous observers. Injections in animals produce endocarditis, polyarthritis, and chorea. The polyarthritis usually develops in about three days after the injections. There are points in the cultural characters and vitality of the organism which seem to distinguish it as absolutely from the streptococci as the pneumococci are distinguished from them. The micrococcus rheumaticus appears earlier and more abundantly on gelatin, produces a marked acid reaction in milk and bouillon, and coagulates milk earlier. The results of animal inoculation are entirely different as already stated: the organism does not produce pus; it can be isolated from cases of typical acute rheumatism; it can be grown outside the body, there showing characteristics which are in some respects specific; in animals it produces lesions similar to those of acute rheumatism in man, and from these lesions it can be recovered in pure culture. On these grounds there seems but one conclusion, that this micrococcus rheumaticus is a special organism, and is causal in acute rheumatism.

4. **Afebrile Typhoid.**—Jubb reports the case of a woman aged 20 years, who had been nursing her sister during a sharp attack of typhoid fever. She had all the initial symptoms of typhoid, lassitude, etc., and on the seventh day the typhoid serum reaction gave a positive result, and the spleen was distinctly enlarged. The temperature, however, remained below 99° F. until the seventeenth day, when it rose to 101.6° F. and the patient complained of pain in the left leg—thrombosis of the left femoral vein. The temperature remained febrile for four days, when it fell to normal, where it remained.

5. **Congenital Intestinal Obstruction.**—Souter reports the case of a male infant two days old which had vomited everything swallowed since birth. The abdomen was opened, the distended bowel stitched to the edge of the wound, and an artificial anus established. The child sank after the operation and died ten days later. At the autopsy the small intestine was found to terminate in a blind end. The large intestine ended in a small cæcum and vermiform appendix and a diverticulum about one half inch in length, having no opening. These two blind ends were situated in about the normal position with respect to each other, but were not in contact.

6. **Infantile Mortality.**—Fulton states that the failure to reduce infantile mortality is the most unfavorable fact in the history of sanitation in Great Britain. He discusses as follows some of the causes of infantile mortality which are common to every locality: 1. Prematurity of birth and congenital defects. The main points to be attended to are the weakness of vitality and inability to maintain animal heat. The infant should not be bathed, and the food should be very dilute, and given frequently in small quantities. 2. Hereditary tendencies. Here is placed the influence of syphilis, tuberculosis, rheumatism, gout, alcoholism, and insanity, in consequence of which the child may inherit a vitiated constitution. 3. The inexperience and neglect of mothers. First born children die at a higher rate than those of a later birth, due partly to inexperience, and partly to greater difficulty in parturition. 4. Industrial conditions. Where the mothers are employed in factories, etc. 5. Social position. This is closely allied to industrial conditions. 6. Improper food and methods of feeding. A woman's milk is the infant's ideal food: where a child cannot be nursed the laboratory method of modification of cow's milk is the next best. The questions of sterilization, pasteurization, and the values of the various forms of infant's food, are also discussed. 7. Accidental or homicidal violence. A thousand infants die every year in London from overlying. 8. Influence of age of parents on vitality of their children. When the father or mother is too young or too old, the children are weakly. 9. Effect of illegitimacy in relation to infantile mortality. An illegitimate child has less than one half the prospect of reaching the end of the first year of life which is enjoyed by a child born in wedlock. 10. Insurance of infants. There is no trustworthy statistical evidence of the ill effect on the life prospects of children from life insurance. 11. Birth rate. The infantile mortality of a given locality bears no constant relation to the birth rate. In France a low birth rate coexists with a high death rate. In the poorer parts of crowded cities both death and birth rate are high. 12. Density of population. There is no causal relationship between density of population per se and a high mortality. The true index of density is the number of persons to each occupied room. Educate the future mothers how to care for their children, by teaching hygiene in the schools. Infantile feeding is the most fertile source of England's deteriorated national physique. To dream of making strong men and women out of damaged children is absurd.

LANCET.

December 3, 1904.

1. The Treatment of Cancer. (*Bradshaw Lecture*), By A. W. M. ROBSON.
2. The Progressive Evolution of the Visual Cortex in Mammalia. (*Bowman Lecture*), By F. W. MOTT.

3. The Relationship of Splenic Anæmia of Infancy to Other Forms of Blood Diseases Occurring in Infancy and Childhood, By H. B. Shaw.
4. A Case of Neurofibromatosis, Sarcoma, and Death, By W. G. Richardson.
5. A Case of Perforated Gastric Ulcer Successfully Treated by Operation Fifty-two Hours After the Perforation Took Place, By T. J. Wood.
6. Notes on a Few Cases of Trypanosomiasis in Man, By G. C. Chatterjee.
7. A Contribution to the Study of the Treatment of Hospital Abuse, By L. E. Shaw.

1. **Cancer.**—Robson states that nothing is known of the true cause of cancer. The facts are not incompatible with the theory that cancer may be produced by an intracellular parasite which stimulates the cell to excessive multiplication. Even of the predisposing causes of cancer next to nothing is known. Malignant growths exist in all branches of the vertebrata. From the great diversity of the food, habitat, and conditions of life of men and animals subject to cancer, it may be concluded that external agencies of food, climate, and general environment have apparently little or no causative influence. We are certain of only one exciting cause, and that is irritation in a variety of forms. It is also certain that cancer is at first a local disease and only later a constitutional malady. It is highly probable that cancer is both contagious and inoculable among human beings, as it undoubtedly is among the lower aminals. Although segregation is not necessary, it is most desirable that all dressings, discharges, etc., from cancer patients should be disinfected or destroyed, that contact with cancerous ulcers should be avoided, whether of the lip, tongue, breast, or uterus, and that common use of beds, utensils, etc., with cancerous patients should not occur. The surgical treatment of cancer furnishes the only hope of cure, essentials being early diagnosis and immediate, complete, and wide removal. A general acceptance of the view that cancer has usually a precancerous stage, and that this stage is one in which operation ought to be performed, would be the means of saving many useful lives, for it would lead to the removal of all suspicious epithelial conditions before the onset of cancer. The arrest or removal of known causes, as well as the abolition of discoverable precancerous conditions, whenever or however occurring, constitute true preventive treatment. The prevention of penile cancer among Jews is due to circumcision, which abolishes phimosis. Moles and warts are frequently the starting point of cancer and should be removed. Gall stones should always be removed so as to prevent cancer of the gall bladder. In the mammary glands eczema of the nipple, chronic inflammatory enlargements, cysts, adenomata, and traumatic indurations should all be treated—at first medically, and then surgically. The watching of a doubtful mammary tumor is unjustifiable. In all cases in which an ulcer of the stomach resists treatment or its scar narrows the pylorus an early gastroenterostomy or excision of the ulcer should be recommended in order to prevent the development of carcinoma. A greater regard for oral sepsis and better care of the teeth would prevent much gastric disease. Laceration of the cervix of the uterus is one of the commonest precancerous conditions. Even where cancer has actually appeared much may be hoped for from radical treatment, if it is sufficiently thorough. Cancer of the breast, for instance, is by no means as incurable as has been thought. In fifty per cent. of the cases the patients may look for over three years' respite; in forty per cent. to a longer period of freedom, and in many to a genuine cure. With earlier diagnosis and improved and more thorough operations, the results in cases of cancer of the stomach, intestines, tongue, larynx, rectum, gall bladder, and liver have steadily improved. Cancer of the uterus also is like cancer of other organs, a local and curable disease.

3. **Splenic Anæmia.**—Shaw discusses the question of the difference between splenic anæmia and leucocythæmia when either disease occurs in an infant. He reviews the blood conditions found in healthy infants and children in the severe secondary anæmias of infancy and childhood, and in the primary anæmias—pernicious anæmia, leucocythæmia, and splenic anæmia, and concludes that there is no sharp line of demarcation between any of the groups which have been dignified with special names. Each disorder shows varying degrees of development of the various characteristics of blood disorder—alterations in number, size, and morphological characteristics of red cells, leucocytosis affecting various leucoblasts, loss of hæmoglobin, enlargement of the spleen, etc. In leucocythæmia the marrow is involved in every case, and shows an overgrowth of the lymphoid cells. In pernicious anæmia the lymphoid cells give rise to abnormal red cells. In splenic anæmia the picture is exactly that seen in lymphatic leucæmia: pathological considerations do not justify the recognition as separate diseases of what are really merely different degrees of reaction of the blood-forming tissues to various excitants of an obscure nature.

4. **Neurofibromatosis.**—Richardson reports a case of neurofibromatosis occurring in a man aged fifty years, suffering from molluscum fibrosum. There were innumerable small cutaneous tumors, many of which were pedunculated. On the other side of the right elbow was a large pendulous growth the size of a child's head. This tumor was removed by operation, and the microscope showed it to be a sarcoma composed of small spindle shaped cells. The patient's skin was remarkably elastic: section of a bit of skin showed a dense but richly nucleated fibrous growth in the corium surrounding the cutaneous glands and hair follicles.

6. **Trypanosomiasis.**—Chatterjee reports nine cases of trypanosomiasis (?) in man with enlarged spleen and a continued low fever, in which the Leishman-Donovan parasites were found—by spleen puncture in some, and by post mortem examination of the liver and spleen in others.

Proceedings of Societies.

MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

Fifty-fourth Annual Meeting, held in Pittsburgh on Monday and Tuesday, September 26 and 27, 1904.

(Continued from page 1004.)

Modern Methods for Combating Deformity in Spinal Caries.—This paper was read by Dr. DAVID SILVER, of Pittsburgh, who stated that the complicated nature of the spine rendered treatment of deformity difficult. Traction by suspension, as a means for correcting deformity and placing the spine in the proper position for fixation, was deficient, because (1) it did not separate the diseased vertebral bodies, and so did not abolish the traumatism from weight-bearing and functional use; (2) the force used was largely expended upon the secondary curves, the kyphosis being but slightly modified; (3) a large part of the good effect was lost unless traction was made continuous by means of a head support, which was not ordinarily done. Similar objections applied to recumbency on a flat surface. Superextension was the keynote of modern treatment. It threw the weight upon the healthy transverse processes, thus relieving the diseased area from pressure. If the proper degree was maintained, the development of a kyphosis was prevented. Deformity in early cases should always be corrected and the spine placed in the overcorrected, i. e., the superextended, position. During recumbency, necessary throughout the destructive stage, superextension was best obtained by the Lorenz plaster of Paris bed, or in young children by the Bradford frame, which could be bent to give any degree of forward curve. Deformity could gradually be corrected with either of these appliances. The best method for obtaining correction and for the routine application of jackets, in cases not requiring a head support, was some modification of the Metzger-Goldthwait horizontal frame. A convenient H-shaped support for the kyphosis was described. When the head was to be included in the plaster, or a head support to be applied, an upright apparatus, such as Taylor's stool or Wullstein's vertical frame, which provided for superextension during suspension, was to be preferred. The most perfect head fixation was obtained by carrying the plaster up over the head, so as to encircle the forehead and the occiput.

Extract of the Suprarenal Gland in Surgical Shock.—A paper thus entitled was read by Dr. ALEXANDER R. CRAIG, of Columbia. The first case was one of a compound fracture of the elbow caused by a gunshot wound six hours before the patient's admission to the hospital, at which time he was pulseless, cold, with a cold sweat, the pupils dilated and the breathing labored. Injections of normal salt solution, in the first and third of which was one drachm of a solution of suprarenal extract, were followed by a very favorable reaction. The second case was one of a compound fracture of the skull in the right parietal region, in which case similar results were obtained.

Dr. ALBERT E. ROUSSEL, of Philadelphia, cited a case of typhoid fever with hæmorrhage in which this remedy had produced very good results, and expressed his belief in its value in cases of dilated heart, where digitalis had been used for a long time and was beginning to wane in its effect.

Dr. JOHN B. ROBERTS, of Philadelphia, felt that it might be questioned whether it was the normal salt solution or the suprarenal extract that had produced the result.

Dr. CRAIG stated that he had never seen normal salt solution act in the prompt and efficient way in which this remedy did.

Boils was the title of a paper read by Dr GEORGE W. GUTHRIE, of Wilkes-Barre, who mentioned as the predisposing causes coarse, unclean skins, large follicles, slight traumatism of the surface, anything that lowered the vitality, overwork, poor food, exhausting diseases, fever, albuminuria, and diabetes, they being produced by infection of the skin follicles by pyogenic bacteria and governed by the same developmental laws as controlled more serious infections. The remedial measures recommended were treatment tending to build up the general system, proper hygiene, rest, careful attention to the skin, and quinine. He believed abortive measures were of doubtful efficacy.

Dr. WILLIAM L. ESTES, of South Bethlehem, referred to the fact that boils on the upper lip and about the ala of the nose seemed to be more serious than on other parts of the body, and reported a case of boil on the upper lip resulting in embolism and a fatal termination.

The Treatment of Infected Wounds With a Phenol Product was the title of a paper read by Dr. C. B. LONGENECKER, of Philadelphia. The mixture referred to was composed of two parts of camphor and one part of phenol, which, he stated, although known to the profession for a long time, had been but little used, its greatest value being in the treatment of infected wounds. Its efficacy might be supplemented by the addition of ichthyol, tincture of iodine, etc. As a result of twelve years' experience in its use, he stated that if correctly applied it produced the best results in most cases, in many relieving the associated pain, without producing a bad result in any.

Clinical Studies in Blood Pressure and Shock in Traumatic Surgery.—A paper on this subject was read by Dr. JONATHAN M. WAINWRIGHT, of Scranton, who stated: 1. There is one drug, morphine, of which the value is unquestionable. 2. The most effective treatment is the mechanical one, which suffices alone in many cases, and after it has been carefully applied, strychnine and digitalin may possibly be of value. 3. Nitroglycerin, atropine, and alcohol are inert or harmful, though alcohol is valuable in the after condition. 4. Intravenous infusions are of real and great value. The efficiency of adrenal extract, in addition, is doubtful. The author also showed a series of charts illustrating the conditions of various patients.

Craniectomy in Microcephaly was the title of a paper read by Dr. W. D. TEAGARDEN, of Washington, in which he recommended, in the case of a child with a fairly nourished body and symptoms of cerebral irritation, that the operation be performed as soon as possible after the minimum age,

i. e., nine months had been reached, believing that the sooner it was performed the better. The mortality from shock would be small if it was performed at that time, as compared with those cases in which it was done after emaciation had begun and the nervous system been weakened by constant irritation of the nerve centres. He reported a case in which the early operation had seemed to be of great advantage.

Dr. Theodore Diller, of Pittsburgh, felt that the theory upon which procedure was based, that the skull would not expand, and that this prevented the development of the brain, was an erroneous one, and he did not favor the operation.

Dr. T. H. Murdoch, of Hope, who for a number of years has had charge of the Western Pennsylvania Institution for Feeble Minded Children, stated that there were in that institution a number of children who had been operated upon without any apparent result, and believed that the supposed advantage of opening the skull would be more than counterbalanced by the growth of cicatricial tissue.

Dr. William D. Haight, of Johnstown, referred to two cases remedied by the operation, in one of which the patient had never spoken before it and in which it was followed by the development of this faculty.

Dr. Spencer M. Free, of Du Bois, stated that the physician in charge of the Craig Colony had reported that he had never seen a case benefited by this operation.

Dr. William J. Campbell, of Huntingdon, referred to cases benefited by this operation, while Dr. William F. Bacon, of York, and Dr. Henry Beates, Jr., of Philadelphia, did not view it as of much value.

Dr. Teagarden referred to the fact that in his case the child's condition had much improved since the operation. He believed in its advantage in judicially selected cases.

Brain Tumor and Trauma was the title of a paper read by Dr. Edmund W. Holmes, of Philadelphia, in which he stated that the pathology of these growths was not different from that of tumors in other parts of the body. The upright posture rendered the cranium more liable to injury, and in severe cases the diffusion of the force increased the dangers to the brain.

Acute Gastric Dilatation Following Operations and in Disease.—This was the title of a paper read by Dr. Theodore B. Appel, in which he reported three cases of this condition. Appended to the report was a résumé of 63 cases from literature.

Dr. Charles P. Noble, of Philadelphia, recommended the use of the stomach tube in these cases, to be followed by an exploratory operation if the symptoms did not subside.

On the Cause of Death After Operations for Intestinal Perforation Occurring in Typhoid Fever was the subject of a paper read by Dr. J. Hartley Anderson, of Pittsburgh. He described in detail the operation and stated as the primary causes of death: Shock, toxæmia, and devitalization of the body by fever. He contrasted the value of local and general anæsthesia, and called particular attention to the danger from toxæmia from the contents of the paralyzed bowel.

A Case of Cæsarean Section Done After Failure to Effect Version in an Impacted Transverse Presentation.—This was the title of a paper by Dr. G. W. Wagoner, of Johnstown, Pa.

Dr. Erasmus Swing, of Coatesville, reported a case in which he had removed a twenty pound child by means of embryotomy, from which the mother recovered, with the exception of a vaginal fistula, which was also cured by operation, although he questioned if it would have been adviable to employ Cæsarean section.

Congenital Elongation of the Left Lobe of the Liver.—A paper with this title was read by Dr. Levi J. Hammond, of Philadelphia, in which he reported the case of a woman, thirty years of age, who had suffered for eight years with pain, pulling, and pressure in the epigastrium, worse when she was lying on the back. At the operation the left lobe of the liver was found to be extended entirely across the lesser curvature into the left hypochodrium, which was flattened out at the extremity over the spleen. This elongated lobe was sutured to the abdominal wall, and this was followed by an uninterrupted recovery.

On the Advantages of Performing Capital Operations in Certain Cases Without Anæsthesia was the title of a paper read by Dr. J. J. Buchanan, of Pittsburgh, who cited the following indications for this method: Profound septic infection; severe collapse from loss of blood and shock; fæcal vomiting with liability to drowning during the operation or aspiration pneumonia subsequently; collapse or compression of the lung with liability to respiratory failure; obstruction of the œsophagus; advanced kidney disease with liability to anuria. He mentioned in detail the operations suitable for this procedure, and emphasized the slight pain and great tolerance and cooperation of the patients, stating that in an experience of ten years his results had been uniformly satisfactory.

Dr. H. E. Wetherill, of Philadelphia, referred to the impossibility of always employing anæsthesia in military operations, and reported two cases, one of extraction of a bullet from the lung, and the other for the removal of the superior maxillary bones, without anæsthesia.

Dr. John B. Roberts and Dr. Joseph W. Hearn, of Philadelphia, emphasized the value of the suggestions contained in the paper, and Dr. Edmunds W. Holes, of Philadelphia, while recognizing the value of such a procedure in selected cases, believed the pain to be greater than the author supposed.

Professional Responsibility in Accident Cases Involving Litigation was the title of a paper by Dr. John B. Roberts, of Philadelphia.

Dr. William T. Bishop, of Harrisburg, emphasized the value of the author's paper.

Dr. Erasmus Swing, of Coatesville, referred to the tendency to bring suits against corporations, whether the injury warranted it or not.

Dr. Levi J. Hammond, of Philadelphia, suggested that possibly this would be lessened if all physicians would refuse to have anything to do with the case on a contingent basis.

Dr. Spencer M. Free, of Du Bois, remarked upon the necessity of care on the part of the consultants as to the statements they made regarding the former treatment of the case.

(To be continued.)

New Inventions.

DEVICE FOR THE APPLICATION TO THE BODY OR A PART THEREOF OF DRY HOT AIR IN THE TREATMENT OF CERTAIN DISEASES.

By JOHN GILBERT, M. D.,

YORK, PA.

The frequent use, especially of late, of dry hot air in the treatment of disease, and the almost prohibitive cost of apparatus to patients of moderate means, led the writer to experiment; the result of which was to produce the apparatus here set forth.

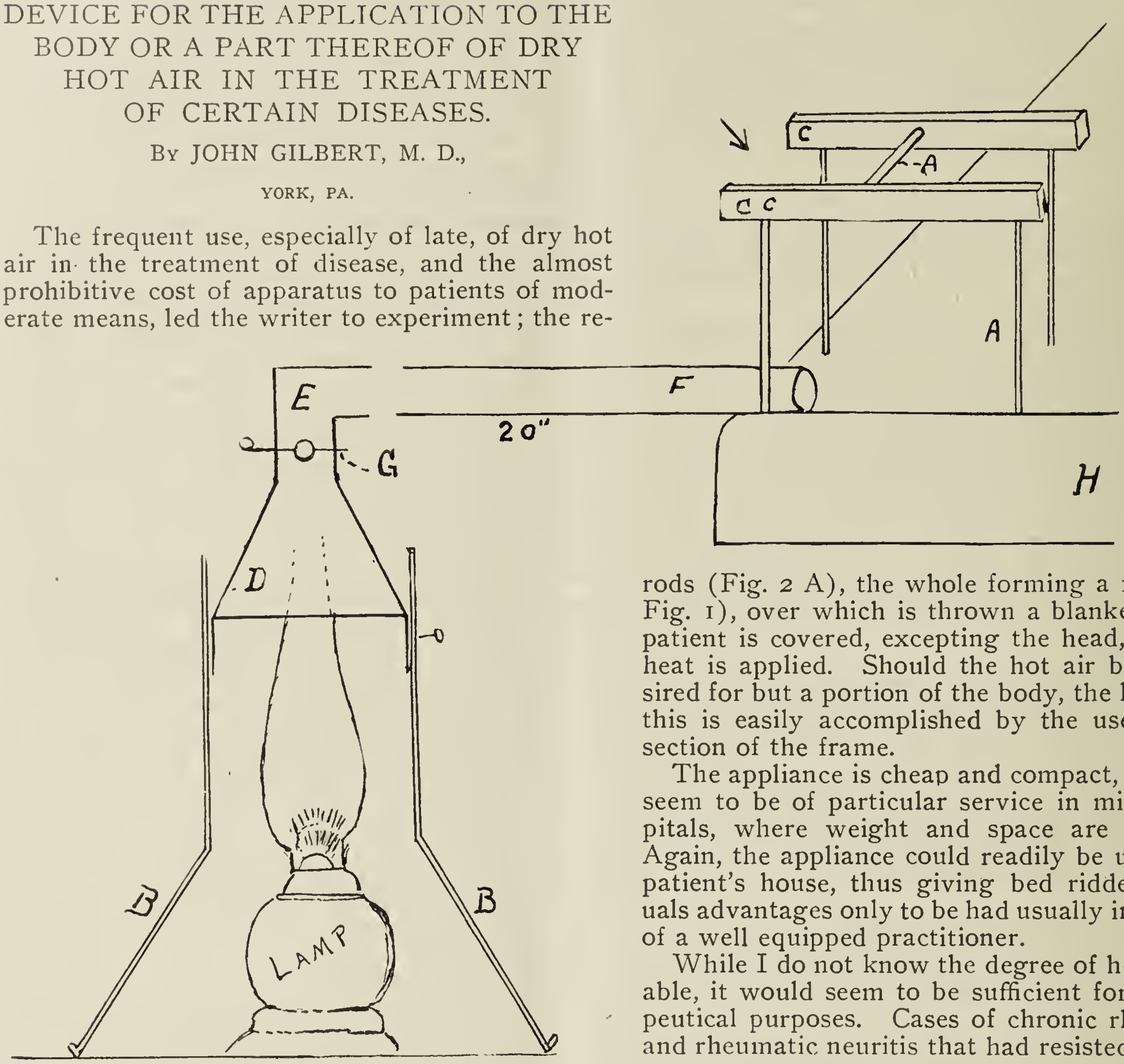

Fig. 1.—Dr. Gilbert's hot air apparatus.

The appliance may be described to consist of two parts; the first of metal, the second of wood.

The metallic part is an ordinary funnel inverted (Fig. 1 D), to which is attached a short pipe and elbow 2 inches in diameter (Fig. 1 E). From the elbow, the pipe extends for about two inches at right angles to the diameter of the funnel; to which may be attached a removable pipe (Fig. 1 F) as long as may be desired. To the funnel are attached at intervals three metal rods, 4 inches long and perforated for a thumb screw, for fastening the longer legs (Fig. 1 B), at any height required by the bed, cot, or lounge used. Just below the elbow is a platform (Fig. 1 E) movable on an axle, which, when horizontal, may be used for sublimation of drugs, and when not so used, by assuming a vertical position, offers practically no obstruction to the passage of heat. Any lamp may be used, placing it under the funnel close to the top; an ordinary duplex burner, however, gives a steady, powerful amount of heat.

The frames consist of four pieces of wood, each 24 inches by 1½ inches by 1½ inches (Fig. 2 C), with holes bored to receive the round ½ inch rods (Fig. 2 A), the whole forming a frame (see Fig. 1), over which is thrown a blanket, and the patient is covered, excepting the head, when the heat is applied. Should the hot air bath be desired for but a portion of the body, the leg or arm, this is easily accomplished by the use of but a section of the frame.

The appliance is cheap and compact, and would seem to be of particular service in military hospitals, where weight and space are important. Again, the appliance could readily be used in the patient's house, thus giving bed ridden individuals advantages only to be had usually in the office of a well equipped practitioner.

While I do not know the degree of heat obtainable, it would seem to be sufficient for all therapeutical purposes. Cases of chronic rheumatism and rheumatic neuritis that had resisted the usual methods of treatment have been apparently cured by it.

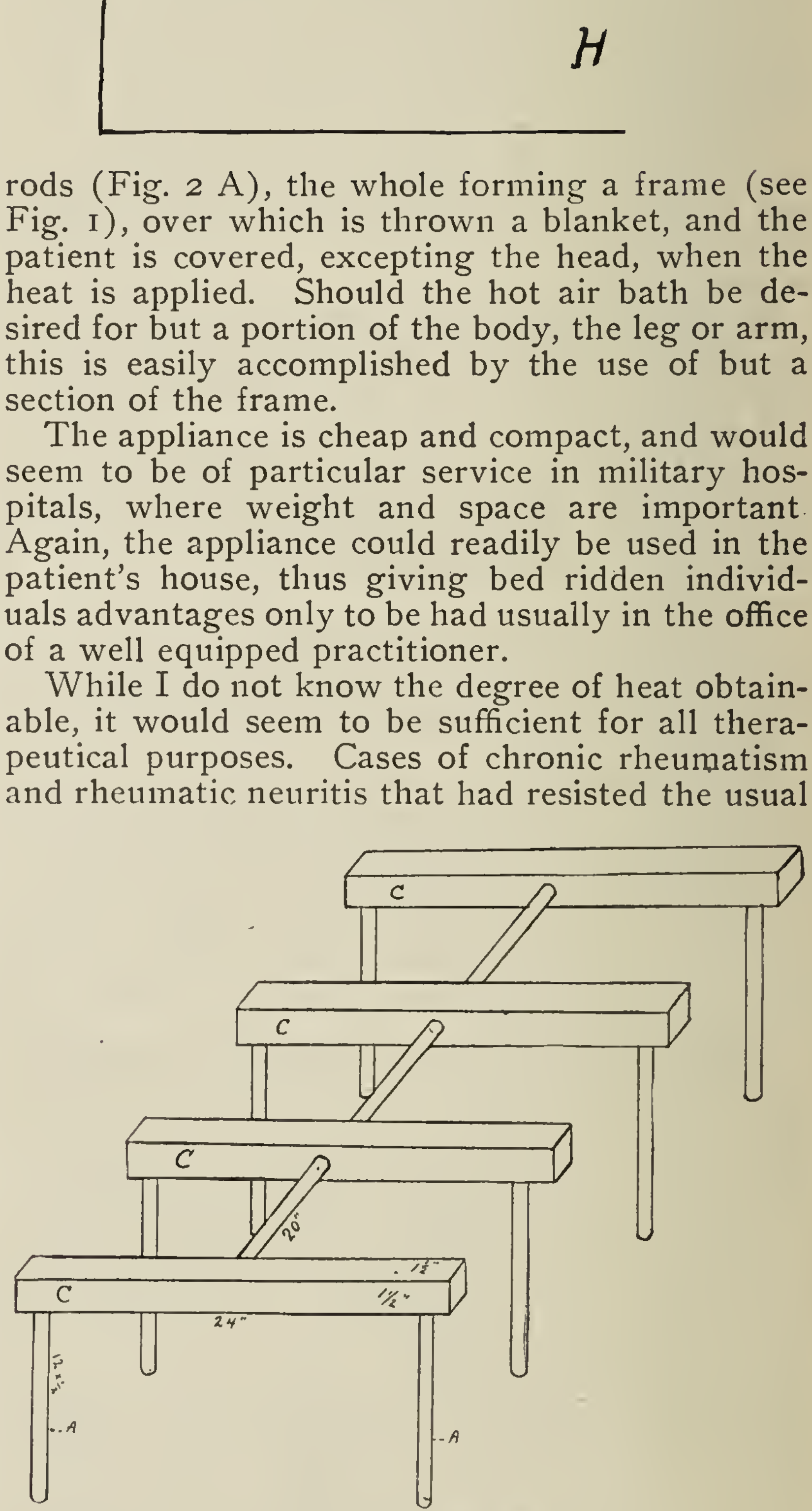

Fig. 2.—The frames.

An improvement in the device consists in wrapping the pipe (Fig. 1 F), where it comes in contact with the bed clothes, with a layer of asbestos.

Book Notices.

A Reference Handbook of the Medical Sciences, embracing the Entire Range of Scientific and Practical Medicine and Allied Science, by various writers. A New Edition, Completely Revised and Rewritten. Edited by ALBERT H. BUCK, M. D., New York city. Vol. VIII, Illustrated by Chromolithographs and Four Hundred and Thirty-five Half Tone and Wood Engravings. New York: William Wood & Co., 1904.

The eighth and final volume of this work is now before us, and has the excellent characteristics of its predecessors. In addition to the text it contains an appendix which serves to bring the work fully up to date. The volume ends with an unusually excellent index of the whole work.

Our views on the character of this production have been set forth from time to time in reviewing the individual volumes, and the approbation and admiration we have heretofore expressed have been fully justified in the complete work. Productions such as this are apt to err in one of two directions—either they are fragmentary and unsatisfactory because of undue condensation, or they become voluminous, not only in bulk, but in unnecessary exhaustiveness of treatment. A work of this kind, to be practical, must be neither the one nor the other of these, and we believe the *Reference Handbook* has achieved the happy medium. It does not in any way replace exhaustive works on individual subjects, but from it the practitioner can readily obtain information on the medical questions that present themselves from day to day. Moreover, its usefulness is decidedly enhanced by its excellent make up and wealth of illustration. We know of no work of its kind in the English language so satisfactory as this, and we find ourselves almost daily consulting its pages for information. In our judgment it cannot fail to be of the greatest assistance to medical men.

X Rays: Their Employment in Cancer and Other Diseases. By RICHARD J. COWEN, L. R. C. S. I., L. R. C. P. I., etc., Member of the British Electrotherapeutic Association, Author of *Electricity in Gynæcology,* etc. London: Henry J. Glaisher, 1904. Pp. xii-129. (Price, 2s. 6d.)

This is a handsome little volume with illustrations of some of the most desirable forms of apparatus. It does not go into the construction and manipulation of x ray apparatus, but presupposes a practical knowledge of x ray technics on the part of the reader. The report of cases goes toward strengthening the belief that, while the x ray alone has seldom cured internal cancer, its use both before and after operation adds very much to the prospect of a permanent cure. It is also of value in prolonging life and adding to comfort in "inoperable" cases. The author has more faith than most writers in the efficacy of the x ray in the treatment of hypertrichosis. He says that a certain number of coarser and darker hairs return after apparent success, and that whether they do so or not, a second and in some cases a third course of treatment should be given. The intervals during which the patient is untreated are of three months' duration.

Medical Laboratory Methods and Tests. By HERBERT FRENCH, M. A., M. D. (Oxon.), M. R. C. P. (Lond.), Medical Registrar, Guy's Hospital, Gillson Scholar, Society of Apothecaries of London, etc. Chicago: W. T. Keener & Co., 1904. Pp. viii-152. ($1.50 net.)

This little volume contains a large amount of information which will prove useful to the general practitioner, who is obliged to do his own laboratory work. The methods of examining the urine, the blood, the sputum, the stomach contents, the fæces, etc., are given in a very brief manner, with the omission of all unessential details. It cannot be said that the book will appeal to men who seek to do thorough work, but it may serve as a vade mecum to the very busy man who has access, if need be, to larger works. The illustrations are of an extremely crude character.

The Modern Nursing of Consumption. By Dr. JANE R. WALKER, Physician to the New Hospital for Women, London, and Medical Superintendent of the East Anglian Sanatorium, Nayland, Suffolk. London: The Scientific Press, Ltd. (Price, 1 shilling.) Pp. 47.

The author of this little book emphasizes the differences that exist in the modern treatment and nursing of consumption compared with the treatment and nursing of other diseases, and seeks to inculcate a knowledge of nursing on the "open-air" principle. In nine lectures she reviews the origin and development of tuberculosis, its symptoms, private nursing and nursing in the different classes of sanatoria, nursing help for special conditions, and disinfection. The several topics are carefully handled, and the volume will be useful in courses in nursing.

Kirkes's Handbook of Physiology. By W. D. HALLIBURTON, M. D., F. R. S., Professor of Physiology, King's College, London. Nineteenth Edition. With Nearly Seven Hundred Illustrations, including Some Colored Plates. Philadelphia: P. Blakiston's Son & Co., 1904. Pp. xxiv-902. (Price, $3.00.)

Professor Halliburton has done an excellent work in this revision of Kirkes's well known treatise. Especially he has been very judicious in the apportionment of the text for his student readers and for those who approach it after having attained to some degree of mastery of the subject, for the latter of whom alone the passages printed in small type are designed. Kirkes's *Physiology* is evidently holding its own in popularity, and deserves to do so.

BOOK AND MAGAZINE NOTES.

The Physician's Pocket Account Book, by Dr. J. J. Taylor, is a neat, compact, easily kept, and strictly legal book, to be carried in the pocket, and showing each person's account at a glance. All entries are made but once, on the day when the services are rendered, in plain legal language, and require no posting or further attention. The advantages of the book are its simplicity, its small size, the ability it gives to show a patient his account on demand, and its strict legality. The book is 4¼ by 6¾ inches in size, and contains 224 pages; price, in leather, $1.00. It is published by the author, at 4105 Walnut Street, Philadelphia.

The October number of the *Papyrus*, a magazine of individuality, as announced by the publishers, has reached us. It is apparently one of the many small monthlies inspired by the founding of the *Philistine*. We do not believe that it will prove of especial value to physicians. It is published at Somerville, N. J.

BOOKS, PAMPHLETS, ETC., RECEIVED.

Atlas and Epitome of General Pathological Histology. By Docent Dr. Hermann Dürck, of the Pathological Institute, Munich. Authorized Translation from the German. Edited by Ludvig Hektoen, M. D., Professor of Pathology in Rush Medical College, Chicago. With 176 Colored Illustrations on 80 Lithographic Plates and 36 Figures in Black and Colors. Philadelphia, New York, London, 1904: W. B. Saunders & Co. Pp. 371. [Cloth, $5.00 net.]

A Manual of Personal Hygiene. Proper Living Upon a Physiological Basis. By American Authors. Edited by Walter L. Pyle, A. M., M. D., Assistant Surgeon to the Wills Eye Hospital, Philadelphia; Secretary of the Section on Ophthalmology, American Medical Association, etc. Contributors: D. H. Bergey, M. D.; J. W. Courtney, M. D.; George Howard Fox, M. D.; E. Fletcher Ingals, M. D.; Walter L. Pyle, M. D.; B. Alexander Randall, M. D.; G. N. Stewart, M. D. (Edin.); and Charles G. Stockton, M. D. Second Edition, Revised and Enlarged. Philadelphia, New York, London, 1904: W. B. Saunders & Co. Pp. xiv-441. [Bound in silk, $1.50 net.]

Gallstones and Their Surgical Treatment. By G. A. Moynahan, M. S. (Lond.), F. R. C. S., Leeds. Fully Illustrated. Philadelphia, New York, London, 1905: W. B. Saunders & Co. Pp. 386. [Cloth, $4.00 net.]

Diet in Health and Disease. By Julius Friedenwald, M. D., Clinical Professor of Diseases of the Stomach in the College of Physicians and Surgeons, Baltimore, and John Ruhräh, M. D., Clinical Professor of Diseases of Children in the College of Physicians and Surgeons, Baltimore. Philadelphia, New York, London, 1905: W. B. Saunders & Co. Pp. 689. [Cloth, $4.00 net.]

Diseases of the Liver, Gall Bladder, and Bile Ducts. By H. D. Rolleston, M. A., M. D. (Cantab.), F. R. C. P., Physician to St. George's Hospital, London; Formerly Examiner in Medicine in the University of Durham, etc. Fully Illustrated. Philadelphia, New York, London, 1905: W. B. Saunders & Co. Pp. 794. [Cloth, $6.00 net.]

Practical Dietetics. By A. L. Benedict, A. M., M. D., Councilor, American Gastroenterological Association; Fellow, American Academy of Medicine, etc. Chicago, 1904: G. P. Engelhard & Co. Pp. 383. [$1.50 net.]

The Anatomy of the Brain. A Manual for Students and Practitioners of Medicine. The Brain of the Sheep (*Ovis aries*) Being Selected for Description and Illustration Because of Its Availability and Its Practical Identity with the Human Brain for Laboratory Use. By J. F. Burkholder, M. D., Professor of Anatomy in the Illinois Medical College and the Illinois Eye, Ear, Nose, and Throat College; Professor of Physiology in the Dental Department of the University of Illinois and the Dearborn Medical College. With an Introduction by Professor Henry H. Donaldson, of the Neurological Laboratory of the University of Chicago. With 36 Full Page Plates (5 of them Colored) from Original Drawings by the Author. Chicago, 1904: G. P. Engelhard & Co. Pp 174. [$2.00 postpaid.]

Normal Histology and Microscopical Anatomy. By Jeremiah S. Ferguson, M. Sc., M. D., Instructor in Normal Histology, Cornell University Medical College, New York city. With 462 Illustrations in the Text, many in Colors. New York and London, 1905: D. Appleton & Co. Pp. xix-738.

How to Study Literature. A Guide to the Intensive Study of Literary Masterpieces. By Benjamin Heydrick, A. B. (Harv.), Professor of English Literature, State Normal School, Millersville, Pa. Third Edition, Revised and Enlarged. New York: Hinds, Noble, & Eldredge. Pp. ix-151. [75 cents postpaid.]

Miscellany

Concerning Pure Septicæmia.—Kneise, in *Fortschritte der Medizin*, for October 10, 1904, reports a case of pure puerperal septicæmia which resulted fatally in spite of treatment with Marmorek's antistreptococcic serum. There were very few anatomopathological changes, though the blood and the various organs contained an abundance of streptococci. The best designation for cases in which bacteria invade the blood and the organs in such abundance as is the case when streptococci are the offending organisms is that which was suggested by Kocher, namely, bacteriæmia or streptococcæmia. This term has failed to be generally used, for clinicians have formed the habit of calling such cases by the name pure septicæmia or sepsis.

An analysis of 96 autopsy reports in which parturient women died of puerperal wound infection at Halle showed that pure septicæmia was the cause in two per cent. of the cases. Bumm was the first obstetrical writer who defined the puerperal diseases clearly and sharply. Kneise insists upon the distinction between putrid intoxication or sapræmia and infection. In the former case there are saprophytes which do not invade the organism, while in the latter there are bacteria which multiply within the body, and as they increase they produce intoxication. The septic infectious diseases are divided into those in which the effect remains local, and those in which the effect is general, the bacteria and their products being disseminated either by the blood or the lymph vessels. In the first class are included pure septicæmia, pyæmia, and thrombophlebitis, and in the second lymphangeitis and peritonitis.

Bumm's classification gives the following subdivisions of the puerperal wound infections:

1. Puerperal putrid intoxication.
2. Puerperal wound infections.

A. Local processes:

Infection of the perinæum, vagina, cervix, and endometrium.

B. General diseases:

a. Those which are developed by way of the blood current, thrombophlebitis, pyæmia, pure septicæmia.

b. Those which are developed by the lymph current, metritis dissecans, parametritis, perimetritis, and peritonitis.

The objection to such a classification is the want of clinical data to enable the practitioner to differentiate one variety from another.

Hæmorrhagic Disease of the Newly Born.—Wollstein, in the *Archives of Pædiatrics*, for September, 1904, remarks that after excluding traumatic hæmorrhage and hæmophilia, there still remain multiple hæmorrhage into the skin and viscera in the form of morbus maculosus neonatorum, epidemic hæmoglobinuria, acute fatty degeneration, and syphilis hæmorrhagica neonatorum. The process is probably one of infection, and the different names represent different varieties of the same disease, according to the previous condition of the child and the severity of the infection. No specific microorganism ha as yet been found, but staphylococcus pyogenes albus, staphylococcus pyogenes aureus, streptococcus pyogenes, a diplococcus resembling that of pneumonia, bacillus pyocyaneus, bacillus hæmorrhagicus of Kolb, bacillus enteritidis of Gaertner, and bacillus coli communis have been cultivated from the heart's blood and viscera after death. The cultures which have been made during life revealed the same organisms as were found after death. The mouth, the gastroenteric tract, and the navel are the main points of entrance for the infection. The navel does not necessarily show any inflammatory lesion as a result and pus may be found in one or both hypogastric vessels within the abdominal cavity when the umbilicus has the appearance of being normal. The syphilitic poison alone may be the cause of hæmorrhages into the skin and viscera without the addition of secondary sepsis, but a syphilitic infant may present more points of entrance for a secondary or a terminal infection. One of the modes of action which enter as an ætiological factor is a destructive one upon the walls of the blood vessels. The causative factor, whatever it may be, probably acts by dissolving the endothelial cells, which line the blood vessels. Other conditions which have a bearing as causes are heredity and the conditions which influence the child during and immediately after birth.

A New Species of Tænia.—The morning following President Roosevelt's election a group of customers were standing about the ticker in a broker's office, watching with interest the rapidly rising values which were being recorded on the tape. The head of the firm, who is also prominent in the management of one of the large city hospitals, approached a physician in the crowd about the ticker and asked him if he had heard of the mysterious and fatal accident in the street. A man in a neighboring office had been suddenly stricken down while watching the tape, and had expired before medical aid could be summoned. At the coroner's examination the cause of death was found to be a tape worm with stock quotations printed on both sides.

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Official News.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the week ending December 16, 1904:

Place.	Date.	Cases.	Deaths.
Smallpox—United States.			
Illinois—Chicago	Dec. 3-10	7	1
Illinois—Danville	Dec. 3-10	1	
Kentucky—Louisville	Dec. 1-8	3	
Louisiana—New Orleans	Dec. 3-10	4 Two imported.	
Maine—Cape Elizabeth	Nov. 1-30	1	
Maine—Eagle Lake Plantation	Nov. 1-30	1	
Maine—New Sweden	Nov. 1-30	1	
Maine—St. Agatha	Nov. 1-30	1	
Maine—St. Frances Plantation	Nov. 1-30	1	
Michigan—At 75 places	Nov. 26-Dec. 3	Present.	
Missouri—St. Louis	Dec. 3-10	15	2
Nebraska—Omaha	Dec. 3-10	1	
Ohio—Cincinnati	Dec. 2-9	3	
Ohio—Toledo	Nov. 26-Dec. 10	3	
Pennsylvania—Johnstown	Dec. 3-10	3	
Pennsylvania—Philadelphia	Dec. 3-10	1	1
South Carolina—Greenville	Nov. 26-Dec. 3	2	
Tennessee—Nashville	Dec. 3-10	5	
Wisconsin—Milwaukee	Dec. 3-10	18	
Smallpox—Insular.			
Philippine Islands—Marinduque Province	Oct. 29	Epidemic.	
Philippine Islands—Siguijor Province	Oct. 29	Epidemic.	
Philippine Islands—Surigao Province	Oct. 29	Epidemic.	
Smallpox—Foreign.			
Austria—Vienna	Nov. 19-26		1
Brazil—Bahia	Oct. 29-Nov. 12	36	3
Brazil—Para	Nov. 15	Epidemic.	
Denmark—Copenhagen	Nov. 5-12	1	
France—Lyons	Nov. 19-26	1	
France—Paris	Nov. 19-26	11	
Germany—Munich	Nov. 19-26	2	2
Great Britain—Glasgow	Nov. 25-Dec. 2	1	
Great Britain—Manchester	Nov. 19-26	1	
Gt. Britain—Newcastle-on-Tyne	Nov. 19-26	4	
Great Britain—South Shields	Nov. 19-26		1
India—Bombay	Nov. 8-15		7
Italy—Palermo	Nov. 12-26	36	9
Mexico—City of Mexico	Oct. 1-Nov. 19	15	5
Russia—Odessa	Nov. 19-26	1	
Russia—St. Petersburg	Nov. 12-26	8	1
Russia—Warsaw	Oct. 22-29		9
Spain—Barcelona	Nov. 20-30		7
Yellow Fever.			
Mexico—Merida	Nov. 20-Dec. 3	2	
Mexico—Texistepec	Nov. 20-Dec. 3	21	2
Cholera.			
India—Calcutta	Oct. 29-Nov. 5		11
Persia—Gilan Province	Nov. 26	Epidemic.	
Persia—Mazonderom Province	Nov. 26	Epidemic.	
Persia—Resht	Oct. —	10 daily.	
Persia—Tabriz	Oct. —	400 daily.	
Russia—Baku	Nov. 4-8	6	
Russia—Balachany	Nov. 4-8	5	
Russia—Erivan	Nov. 4-8	132	62
Russia—Samara	Oct. 17-24	65	14
Russia—Tiflis	Nov. 7	1	
Turkey in Asia—Mesopotamia	Oct. 22-29	96	89
Plague—Insular.			
Hawaii—Honolulu	Dec. 10		1
Plague—Foreign.			
Arabia—Aden	Nov. 4		1
Argentina—Salta	Nov. 9-15	Epidemic.	
Brazil—Bahia	Nov. 5-12		8
Egypt—Achmun district	Nov. 5-12	1	1
Egypt—Tukh district	Nov. 5-12	4	1
India—Bombay	Nov. 8-15		75
India—Calcutta	Oct. 29-Nov. 5		9
India—Karachi	Oct. 31-Nov. 6	11	9

Public Health and Marine Hospital Service:

List of Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the Public Health and Marine Hospital Service for the seven days ending December 14, 1904:

ANDERSON, J. F., Passed Assistant Surgeon. Detailed to represent the Service at meeting of the Laboratory Section of American Public Health Association at Havana, Cuba, January 9 to 13, 1905.

BAHRENBURG, L. P. H., Assistant Surgeon. Granted leave of absence for twenty-one days. December 14, 1904.

BLUE, RUPERT, Passed Assistant Surgeon. Granted leave of absence for five days from December 13th.

BURKHALTER, J. F., Assistant Surgeon. Granted leave of absence for twelve days from December 24th.

GREENE, J. B., Passed Assistant Surgeon. Granted leave of absence for fourteen days from December 19th.

HANRATH, F. R., Pharmacist. Relieved from temporary duty at Cleveland Ohio. December 13, 1904.

JACKSON, J. M., JR., Acting Assistant Surgeon. Department letter of October 10, 1904, granting Acting Assistant Surgeon Jackson leave of absence for thirty days from October 26th, amended to read thirty days from November 26th.

KEATLEY, H. W., Acting Assistant Surgeon. Granted leave of absence for eighteen days from December 10th.

MCINTOSH, W. P., Surgeon. Granted leave of absence for one day, December 10th.

OAKLEY, J. H., Passed Assistant Surgeon. Granted leave of absence for one day, December 13th.

PRIMROSE, R. S., Acting Assistant Surgeon. Granted leave of absence for eighteen days from December 5th.

STONER, J. B., Surgeon. To proceed to Delaware Breakwater Quarantine and assume temporary charge during absence, on leave, of medical officer in command. December 14, 1904.

von Ezdorf, R. H., Passed Assistant Surgeon. Granted leave of absence for six days from December 12th.

Wertenbaker, C. P. Surgeon. Detailed to represent the Service at meeting of American Public Health Association at Havana, Cuba, January 9 to 13, 1905.

Wickes, H. W., Passed Assistant Surgeon. Granted leave of absence for one month from December 23rd.

Resignation.

Acting Assistant Surgeon B. Y. Harris, resigned, to take effect December 15, 1904.

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending December 17, 1904:

Ashford, B. K., Captain and Assistant Surgeon. Detailed to represent the Medical Department of the Army at the meeting of the American Public Health Association, Havana, Cuba, January 9 to 13, 1905.

Banta, William P., First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Sam Houston, Texas, and ordered to duty as surgeon on the transport *Sheridan* during the voyage to the Philippine Islands, relievlieving Assistant Surgeon De Laney; upon arrival at Manila to report for assignment to duty.

Buck, Carroll D., First Lieutenant and Assistant Surgeon. Relieved from duty with the Philippine Scouts, Louisiana Purchase Exposition, St. Louis, Mo., and ordered to Fort Des Moines, Iowa, for duty.

Cox, Walter, Captain and Assistant Surgeon. Advanced to the rank of captain on December 12, 1904.

De Laney, M. A., First Lieutenant and Assistant Surgeon. Relieved from duty on the transport *Sheridan* and ordered to report in person to the Surgeon General for duty as assistant to the attending surgeon in Washington, D. C.

Ewing, Charles B., Major and Surgeon. Granted twenty-one days' leave of absence, to take effect about January 2, 1905.

Gorgas, William C., Colonel and Assistant Surgeon-General. Detailed to represent the Medical Department of the Army at the meeting of the Pan-American Medical Congress, Panama, January 3 to 6, 1905.

Ives, Francis J., Major and Surgeon. Granted three months' leave of absence from December 20, 1904.

La Garde; L. A., Major and Surgeon. Detailed to represent the Medical Department of the Army at the meeting of the Pan-American Congress, Panama, January 3 to 6, 1905.

Marrow, Charles E., Captain and Assistant Surgeon. Advanced to the rank of captain on December 12, 1904.

Maus, Louis M., Lieutenant Colonel and Deputy Surgeon-General. Granted four months' sick leave of absence, to take effect at the expiration of the present leave.

Mearns, E. A., Major and Surgeon. Sick leave of absence further extended thirty days.

Reno, William W., First Lieutenant and Assistant Surgeon. Relieved from duty at the Louisiana Purchase Exposition, St. Louis, Mo., and ordered to Fort Myer, Va., for duty.

Stark, Alexander N., First Lieutenant and Assistant Surgeon. Granted two months' leave of absence at the expiration of the present sick leave of absence.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending December 17, 1904:

Babin, H. J., Medical Director. Retired from active service on December 15, 1904, upon which date he reached the age of sixty-two years, under the provisions of Section 1444, Revised Statutes, with the rank and three fourths the sea pay of the next higher grade, under the provisions of Section 11, Navy Personnel Law.

Bertolette, D. N., Medical Inspector. Detached from the Marine Barracks, Washington, D. C., and ordered to duty in charge of the Naval Laboratory, Brooklyn, N. Y.

De Valin, H., Acting Assistant Surgeon. Ordered to the *Michigan.*

Evans, S. G, Surgeon. Detached from the *Cleveland* and ordered to the *Illinois.*

Foster, T. G., Acting Assistant Surgeon. Detached from the *Michigan* and granted leave until January 3, 1905, then to report at Washington, D. C., for examination for appointment as an assistant surgeon.

Harmon, G. E. H., Medical Inspector. Detached from duty in charge of the Naval Laboratory, Brooklyn, N. Y., and ordered to duty in command of the Naval Hospital, New York.

Holcomb, R. C., Passed Assistant Surgeon. Ordered to the *Illinois* temporarily, and thence to the *Cleveland.*

Kennedy, J. T., Passed Assistant Surgeon. Detached from duty at the Louisiana Purchase Exposition, St. Louis, Mo., and ordered to Annapolis, Md.

Nelson, H. T., Assistant Surgeon. Ordered to additional duty at the Marine Barracks, Washington, D. C.

Rothganger, G., Surgeon. Detached from the *San Francisco,* ordered home, and granted leave for one month.

Births, Marriages, and Deaths.

Married.

Hoag—Harcourt.—In Baltimore, Maryland, on Thursday, December 8th, Mr. Jonathan Hoag, Jr., and Dr. Grace Mae Harcourt.

Paffard—Adams.—In Brookline, Massachusetts, on Thursday, December 15th, Dr. Frederick Chauncey Paffard and Miss Helen Crocker Adams.

Died.

Babbitt.—In Dorchester, Massachusetts, on Thursday, December 10th, Dr Henry S. Babbitt, in the seventy-ninth year of his age.

Barry.—In Ansonia, Connecticut, on Thursday, December 15th, Dr. Robert J. Barry, in the thirty-sixth year of his age.

Bigler.—In Philadelphia, on Sunday, December 11th, Dr. William H. Bigler, in the sixty-fifth year of his age.

Curtis.—In Philadelphia, on Monday, December 12th, Dr. Levi Curtis, in the eighty-third year of his age.

Ellershaw.—In Philadelphia, on Friday, December 9th, Dr. William Ellershaw.

Graves.—In Lexington, Kentucky, on Sunday, December 4th, Dr. C. J. Graves, in the seventy-ninth year of his age.

Higgins.—In Denver, Colorado, on Saturday, December 3rd, Dr. Kittie Waldo Higgins, in the forty-sixth year of her age.

Houghton.—In Schenevus, N. Y., on Friday, December 2nd, Dr. E E. Houghton, in the seventy-fourth year of his age.

Keefer.—In Mechanicsville, N. Y., on Thursday, December 8th, Dr. Charles W. Keefer.

Law.—In Jersey City, N. J., on Tuesday, December 13th, Dr. Charles K. Law, in the thirty-seventh year of his age.

Marshall.—In Paducah, Kentucky, on Thursday, December 8th, Dr. B. Thomas Marshall, in the sixty-sixth year of his age.

Purmer.—In Fargo, North Dakota, on Sunday, December 11th, Dr. S. S. Purmer, in the seventy-first year of his age.

Shepherd.—In Apalachicola, Florida, on Thursday, December 1st, Dr. G. W. Shepherd.

Strack.—In Cincinnati, Ohio, on Saturday, December 10th, Dr. Harry J. Strack, in the twenty-sixth year of his age.

Strange.—In Glensfork, Kentucky, on Sunday, December 11th, Dr. S. W. Strange, in the sixty-fourth year of his age.

Wade.—In Athens, Georgia, on Wednesday, December 7th, Dr. R. M. Wade, in the sixty-fifth year of his age.

Warder.—In Chicago, Illinois, on Monday, December 12th, Dr. William H. Warder, in the fifty-seventh year of his age.

New York Medical Journal
AND
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A Weekly Review of Medicine

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Original Communications.

THE VALUE OF STEREOSCOPIC SKIAGRAPHY, WITH PRACTICAL DEMONSTRATION.*

By MIHRAN K. KASSABIAN, M. D.,
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DIRECTOR OF THE RÖNTGEN RAY LABORATORY OF THE PHILADELPHIA GENERAL HOSPITAL.

The paper which I am about to read deals with a subject that is unfamiliar to some of you, it not having been presented before this society up to the present time, although it was first employed in this country by Professor Elihu Thomson (*Electrical Engineer,* March 11, 1896), and subsequently used abroad, viz.: The application of the principles of stereoscopy to the art of skiagraphy. To-night I will briefly explain its principles and its technique and a few improvements that I have made in developing the method and making it more practical and simple. These improvements, which will be demonstrated later on, I have no doubt will be interesting to medical men as well as to surgeons.

Photography vs. *Skiagraphy.*—There is a misunderstanding among laymen and even among professional men as to the two terms, photography and skiagraphy. A photograph is an image produced on a sensitive plate in a camera by the ordinary light reflected from the surface of the object converging and passing thither through a lens or pin-hole and then diverging and falling, producing a reduced size of the image on the plate. Therefore, we call a photograph a "reflected" picture, and we see only that part of the object that is near or toward the optical perimeter if the object is not transparent; if it is transparent, then the refraction obscures the clearness of the farther side.

In skiagraphy, on the other hand, working with x ray apparatus, the x rays emanate from a small point (anode), and diverge and pass through opaque bodies (to ordinary light), and throw a relative shade of the object on a sensitive photographic plate, producing a merely actual silhouette. Therefore, an x ray picture, or skiagraph, is produced by transmitted light.

For instance, if we examine the hand with the fluoroscope or skiagraph, the shadows are the same as when looking from the dorsal or palmar side of it, the shadows having equal sharpness, there being no refraction.

When we look at photographs which are taken with one lens (as if with one eye) and skiagraphs made in one direction, there is only a flat picture, with no perspective and no relief effect.

The Purpose of Stereoscopy.—The ordinary photographs and images look flat, as if seen by one eye, the reflection of one plane; while stereoscopic pictures, which are made by two lenses, each being two and a half to two and three quarters inches from each other (corresponding to the distance of the two pupils of the eyes) will be impressed on the retina as one picture, thus giving a perspective view.

Stereoscopic Fluoroscopy. — The stereoscopic fluoroscope consists of a fluorescent screen illuminated by two tubes which spark alternately. A rotating disc with appropriately placed slots eclipses each eye alternately. This works synchronously with the sparking of the tubes. Each eye sees the shadows cast by one tube. A stereoscopic image is thus seen on the screen, the movements of the shutter, etc., being sufficiently rapid to give a continuous illumination of the screen.

Stereoscopic fluoroscopy is very interesting, indeed, it being possible to see foreign bodies in their exact position, not as in an ordinary picture. But unfortunately, this method is impracticable for several reasons, the complexity of the apparatus, expense, the bulk, etc.

The Technique of Stereoskiagraphy.—The technique briefly consists of taking two separate skiagraphs of the same part, on two different sensitive plates, without changing the position of the parts, but displacing the position of the Crookes tube two and a half to two and three quarters inches (6 cm.), corresponding to the distance apart of the pupils of the eye. Afterward these two negatives or skiagram should be examined with a special instrument.

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* Read before the American Röntgen Ray Society, September 9-11, 1904, St. Louis, and Philadelphia County Medical Society, October 12, 1904.

The part on which the stereoscope is to be used should be first fluoroscoped or skiagraphed in order to have an exact knowledge of the location of the injury present. This is most important.

For use in stereoscopic work, there is a slot changing box, measuring fourteen by seventeen inches, the top of which is of thin wood or hard fibre. The size of the plates is marked upon this top in order to correspond to the dimensions on the drawer of the box. Over this box is placed crossed wire, which facilitates the accuracy of superposition while using the stereoscope. The best method in taking stereoscopic pictures is to have a horizontal bar, scaled in inches and centimetres. First centre the object, then move the tube to the right, corresponding to the vision of the right eye (one and one quarter inches), and take a picture. Place a fresh plate in the drawer of the box, which can be done without moving the object, and move the tube to the left, corresponding to the view from the left eye, and take another picture. The plates should be marked "right" and "left," in order not to confuse them after the picture is taken.

Some operators use two Crookes tubes at a distance of seven to eight centimetres, and do not move the tube at each exposure. The objection to this method is that two different tubes will not have the same degree of vacuum, and there is danger of puncturing the tube.

Johnson and Czermak prefer to move the box two and one half inches instead of sliding the tube.

I have devised a special table and adjustable plate-holder, which, to my mind, have many advantages over the other devices in many respects.

This table is so constructed that the tube can be placed to slide on a rod with great ease either on the top, bottom, or side, without discomfort to the patient.

Usually in skiagraphing for either simple or stereoscopic purposes the part is placed over the table or changing box, and the weight of the patient rests upon the plate, thus displacing or changing the original position of the foreign body. Therefore, the device above mentioned is of advantage in this respect, since by its use the part may be placed in a natural position, without the plate changing frame touching it at any point.

In order to produce two negatives of "equal density" the degree of penetration of the rays should be as equal as possible. There are no two tubes that have the same degree of vacuum, and the same tube changes its vacuum during the exposure. The operator should judge the time of exposure of the second plate from experience. A self-regulating tube is preferable in all cases. I have been in the habit of giving a little longer time for the second exposure than the first, as the tube runs down a little and the penetration lessens. Short exposures are most desirable.

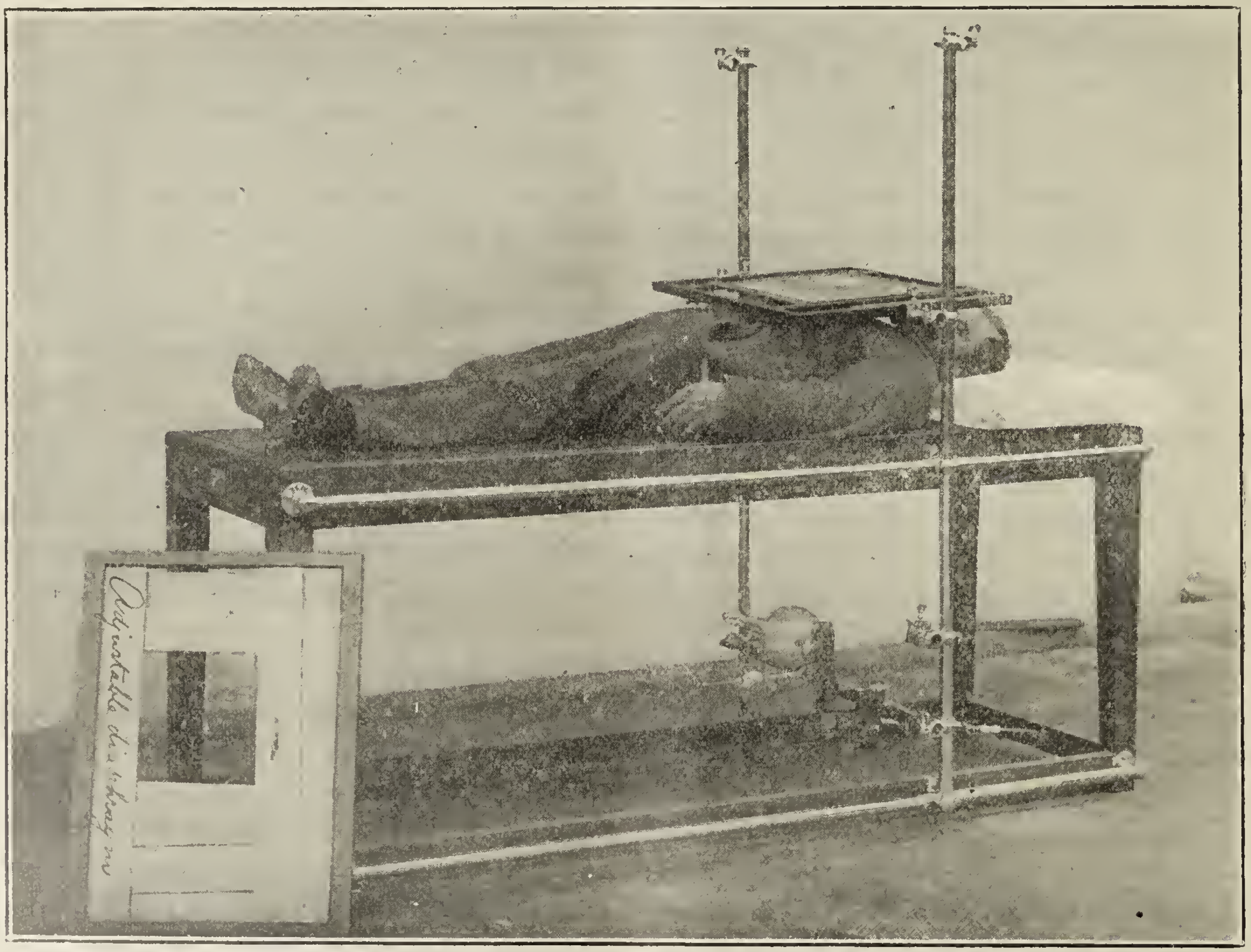

FIG. 1.—Crookes's tube under the table and plate over the chest. The plate can be removed and another substituted without disturbing the patient. This method is specially valuable in locating foreign bodies stereoscopically, because the pressure of the part will not cause any change in the location of it.

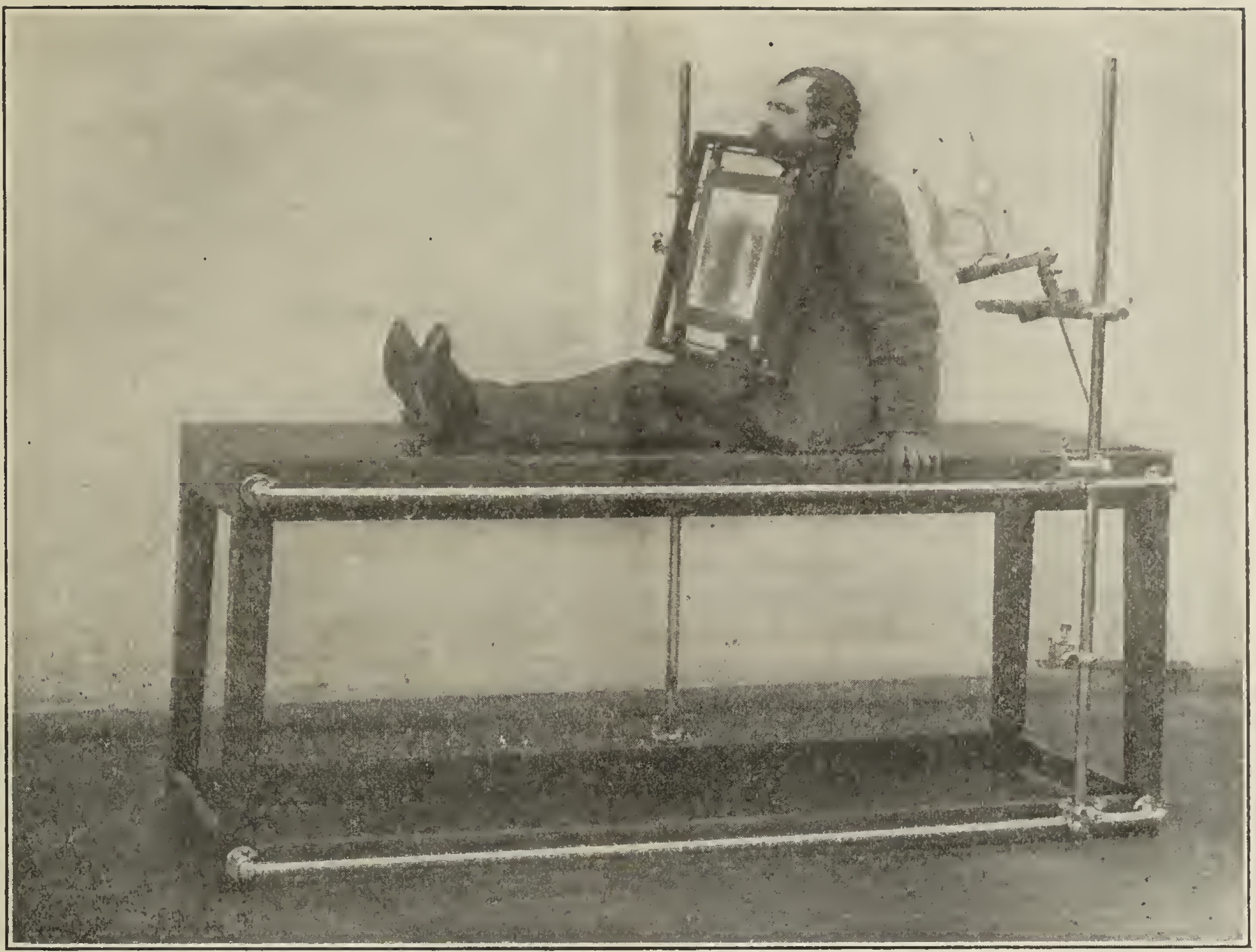

FIG. 2.—Sitting position. The plate can be changed without changing the position of the patient in stereoscopic skiagraphy by displacing the tube holder 2½ inches. Any side of plate can be placed. This plate holder can be used for holding the fluoroscope also.

In order to have two negatives of equal density, the process of development should be carried on with great care. The developers should be the same for both. I have been exposing two exposed plates in one tray, with the same duration of development, but lately I have discarded this method on account of having larger plates, because putting them together and handling them together is difficult. Therefore, I now develop them separately, and by carefully mixing the developer before and during the progress of development I alter it as the plate requires. The duration of development will be regulated according to the degree of density desired; soft negatives are preferable.

METHODS OF EXAMINATION OF STEREOSKIAGRAMS.

Wheatstone's Reflecting Method.—This instrument was devised in 1838, and consists of two vertical mirrors accurately set at a right angle, the vertex of the angle facing the middle line of the observer's forehead. This arrangement of mirrors slides to and fro, and is placed over a long board, upon which a vertical frame is parallel with the reflecting plane, and forms an angle of 45 degrees. These frames and mirrors are so constructed that the observer can easily superimpose the two pictures.

In placing the pictures in this frame, it must be borne in mind that they must be so placed as to hold the same position in the vision as that occupied by the Crookes tube during exposure. For instance, the picture marked "right" should be placed in the frame to the right of the observer in order to get an anterior view of the part. If placed in the left frame, a posterior view will be obtained. When prints are examined with reflected light, by turning the prints end for end, without changing the "R" and "L" positions, posterior and anterior views may be obtained. This process is a very interesting and valuable one in skiagraphy.

The advantages of the Wheatstone's reflecting method are as follows: Any size negative, even before a print is made, can be viewed. When negatives are used without prints, the picture is seen more in detail; negatives can be examined while wet. I have made two holes in a block of wood which is placed between the reflecting mirrors, where the same reflecting light used for negatives can be placed for illumination of the prints.

Brewster's Refracting Method.—Brewster's refracting or lenticular stereoscope, which is well known, is based on the principle that two pictures are produced by a displacement of two and a half inches, being placed side by side and viewed with two prisms (eighteen degrees) for each eye. These pictures will superimpose according to the laws of refraction. One disadvantage of the Brewster's refractor is the great degree of convergence of the axis of vision which is necessary. Also it is necessary to reduce the size of the pictures for use in this refractor.

Reduced Stereoskiagrams.—(1) Transparencies: Make reduced pictures from the original negatives in the same manner as making transparencies or lantern slides (size, three and one half by three and one half inches), and mount them on a fine ground glass (four by seven inches), and view them with an ordinary hand stereoscope. (2) Reduced Prints: From the transparencies or lantern slides make prints and mount them in two ways. By reversing the "R" and "L" prints, two views of the subject will be observed, and this proves very convenient in studying them, as dorsal and palmar, or anterior and posterior views may be observed.

These reduced size pictures can be put over the desk in the office as a specimen of fracture, foreign body, thorax or skull, for study or to show to the patient. I have made some plastographic views from these stereoscopic negatives. The "plastographic method" is a new one and is patented. The picture is made by superimposing one print in green over another in crimson, giving to the naked eye a very hazy appearance, but when viewed through eye glasses, one green and the other crimson, a very beautiful picture with marked detailed relief meets the eye. I believe this process will be a useful means in illustrating the medical journals and books stereoscopically. There is another method of combining stereoscopic pictures without an instrument, which easily can be acquired, by crossing the visual axes. Place the skiagrams in front, hold up the index finger in the middle line between your eyes and the skiagrams; while looking at the top of your finger, a third picture will appear in the centre with a most beautiful stereoscopic effect.

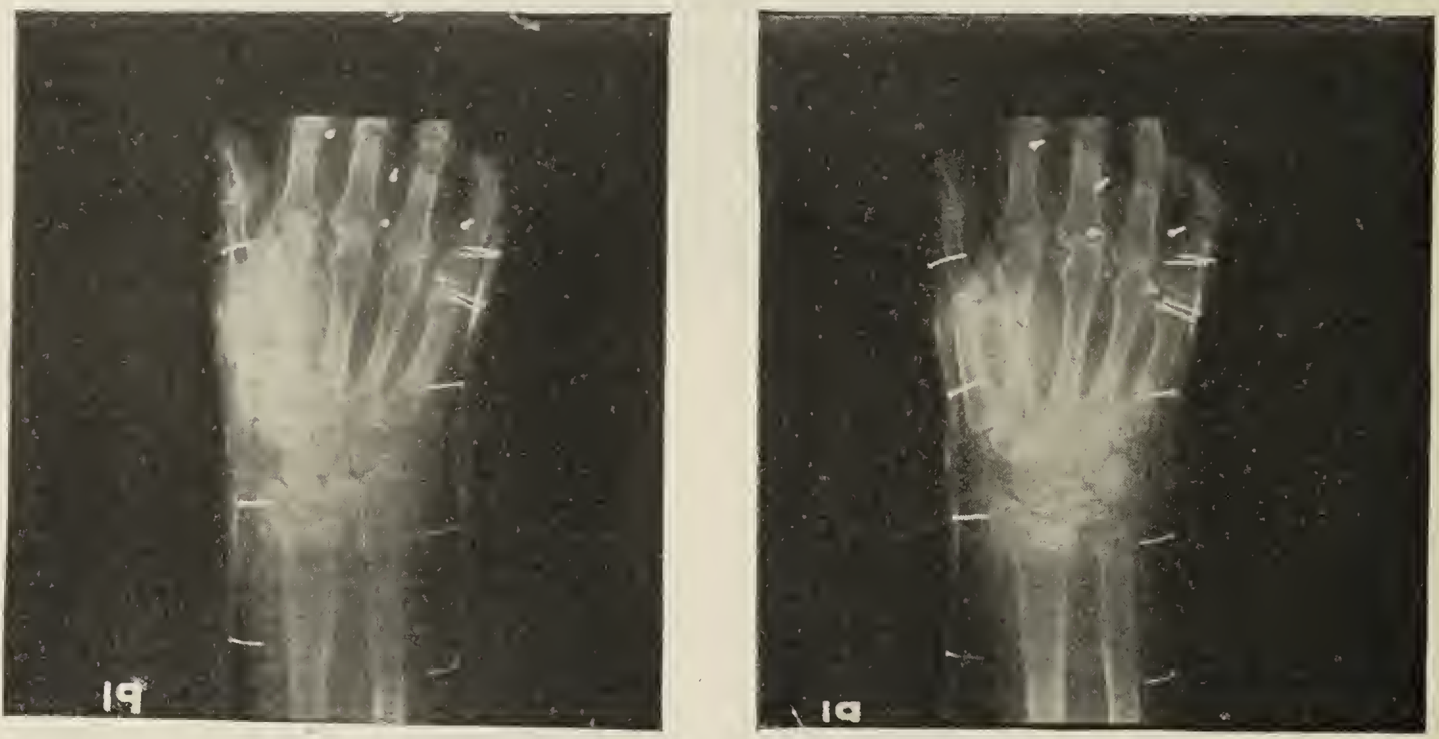

Fig. 3.—Palmar view of Colles's fracture taken through the splint. If in this stereoscopic picture the position of the negatives is reversed, the stereoscope will show a dorsal view of the hand.

The Advantages and Practical Uses of Stereoskiagrams.

As already pointed out, an ordinary skiagraph is composed of pictures of different densities, which when superimposed look flat and on one plate, and the many shadows are indistinct and weak, but in a stereoscope the superimposition will be more distinct and visible.

Two plates exposed at different angles are used and any deficiency in one is easily recoverable in the other.

Another valuable feature is that two views, viz.: anterior and posterior, are discernible.

The value of stereoscopic skiagraphy is self-evident, as you will see by the practical demonstration with the different methods of observation. Some of the values of this method are as follows:

1. *Anatomy.*—For demonstrating the structure of the bones. In both long and short bones the trabeculæ are seen, and in the long bones we may see the arrangement of the lamellæ in the shafts and in the cancellous tissue.

The spiral arrangement of the lamellæ is distinctly shown, especially in the humerus and femur, as also is the change in their direction near the articular surfaces, bringing them into columns perpendicular to the surface of the pressure.

In examining the dry skull the grooves for the meningeal arteries are seen, the concave appearance of the skull processes, the frontal sinuses, the arteries of Highmore, the turbinated bones, etc. It is very interesting to view these results in the living subject as well as in the skeleton. I am now making a series of experiments with Professor M. H. Cryer in order to study the anatomy of the face.

In studying the mechanism of the joints, these pictures give a perspective view of the relations of the articular surfaces of the bones and the actual depth, and the relation of the processes to the observer.

Arteries, veins, bronchi, and excretory ducts, when injected with opaque materials, such as lead or mercury, show their exact relations (their depth) to the bones, the muscles, etc.

Surgery.—There are, of course, numerous methods of localizing *foreign bodies,* but stereoskiagraphy is the most satisfactory, giving as it does a definite view of the foreign body, enabling the surgeon to operate with certainty. In order that the negative show shadows of different tissues, especially cystic and soft tumor tissues, the negative should be soft and full of details.

When two negatives of this kind are superimposed the intensity of the shadows is doubled. Therefore, I am using this method in Philadelphia Hospital in a series of experiments for detecting and locating brain tumors, etc.

The foregoing statement is also true with regard to *fractures.* The method procuring definite views of injuries, namely, the exact position of the fragments the amount of overlapping, the separation, the degree of apposition in deformities, etc. The ordinary skiagraph does not show the variety and character of a *dislocation.* The stereoskiagraph, however, overcomes this difficulty, producing a clear and definite view of the existing condition, so as to differentiate between an anterior and a posterior dislocation. In viewing the thorax we may see either an anterior or a posterior aspect, depending on the position of the plates. The heart, its position; the aorta, its relation to the vertebral column; the beautiful cage appearance of the thorax, the location of a cavity on consolidation, etc., are interesting and fascinating from a practical and scientific standpoint. I have been employing this method of stereoscopic skiagraphy in the Röntgen Ray Laboratory of the Philadelphia General Hospital for nearly every case.

In closing I desire to express a wish that the members of this society will be enough interested in the good results of this method to employ it in preference to ordinary skiagraphy. I acknowledge that it requires more time and care, but I believe the results obtained compensate for these seeming disadvantages.

PROFESSIONAL BUILDING, 1831 CHESTNUT STREET.

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Cincinnati Board of Health.—Dr. George R. Roessly, of 907 Clark Street, Cincinnati, was appointed physician for the Fifteenth District by the board of health on December 6th to fill the vacancy caused by the death of the late Dr. Harry J. Strack.

A NOTE ON THE ROLE OF THE THYREOID GLAND IN EXOPHTHALMIC GOITRE ASSOCIATED WITH PARALYSIS AGITANS.*

By ALFRED GORDON, M. D.,

PHILADELPHIA,

INSTRUCTOR IN NERVOUS AND MENTAL DISEASES, JEFFERSON MEDICAL COLLEGE; ASSISTANT VISITING NEUROLOGIST TO THE PHILADELPHIA GENERAL HOSPITAL; NEUROLOGIST TO THE DOUGLASS MEMORIAL HOSPITAL.

The pathogenesis of Graves's disease is still a subject of discussion. The partizans of the theory of hyperthyreoidization, as well as those who believe in a nervous origin of the disease, particularly in that of the cervical sympathetic system, all report proofs in favor of their respective views. However, an impartial analysis of facts, clinical as well as experimental and pathological, compels us to look at the disease in question as having a nervous origin. In a contribution published in the *Philadelphia Medical Journal,* in 1900, the writer discussed at length the various theories and reviewed critically all the accumulated data concerning the physiology and the pathology of Graves's disease; from this study he arrived at certain therapeutical suggestions. It is necessary to recall a few facts in order to emphasize the importance of the subject we have before us tonight. Students generally admit that in the exophthalmic goître all the phenomena are the result of a permanent irritation of the vasodilator nerves situated in the sympathetic nerve (classical experiments of Dastre and Morat), and as the vasodilators of the head and heart have their deep origin in the medulla, it is there that we must look for the explanation. The sympathetic nerve sends nervous filaments to the bottom of the orbit, thyreoid gland, and cardiac plexus. With a permanent irritation of the vasodilators coming from its centre there is a constant afflux of a considerable amount of blood to the thyreoid gland and hypertrophy of it follows. The dilatation of the retrobulbar vessels leads to protrusion of the ocular globe and we have exophthalmos. The filaments going to the heart give rise to tachycardia.

The advocates of the opposite view maintain that the irritation of the sympathetic nerve which produces the above mentioned symptoms is caused by the excessive secretion of the thyreoid gland and consequently by accumulation of the surplus of thyreoidin, the normal function of which is to neutralize the toxic products of the organism. Whether the syndrome of the affection under discussion is due to an initial irritation of the centre of the sympathetic system and to a secondary irritation of the thyreoid, or to an initial disturbance of the function of the thyreoid and a secondary irritation of the sympathetic, it is impossible as yet to state. The fact nevertheless remains that the thyreoid gland is involved, and in order to interpret properly the disturbances which we may encounter in the course of Graves's disease, we must turn our attention to the physiology of the gland and to the consequences which its pathological condition leads to. Shiff, in his Untersuchungen über die Zuckerbildung in der Leber, 1859, was the first to call attention to the fatal effect of thyreoidectomy. Reverdin and Kocher have shown that tetany and myxœdema may follow extirpation of the thyreoid. Experimental researches have shown that the effect of operation upon this ductless gland is various: in some cases the nervous system alone suffers, in others the general nutrition. The suppression of the function of the thyreoid produces myxœdema; exaggeration of its function is one of the symptoms of Graves's disease. In both cases there is supposed to be a toxic condition of the organism. That thyreoid autointoxication exists has been proved by studies on toxicity of the tissues, blood, and urine. Ughetti, Mattei, and others found that the blood of a dog in which the thyreoid was removed had no effect on a normal dog, but produced a continuous tremor in an animal whose thyreoid was extirpated. Gley, Vassali, and Generali extirpated the parathyreoid glands and this was followed in the course of a few days by a generalized tetany. Gley saw fibrillary contractions produced by the blood of an animal in which the thyreoid was destroyed. Multiple changes in various organs were found after thyreoidectomy, as for example, dilatation of the blood vessels, changes in the hepatic and renal cells; but the most important changes are those of the nervous system. It appears that the brain, cerebellum, medulla, and anterior cornua of the spinal cord are the seat of the lesions. According to the experiments of Vassali and Donaggio, degenerative changes were found in the pyramidal and posterior tracts. In MacCallum's findings marked chromatolysis of the motor cells of the cortex and cord was distinct, while *intra vitam* tetanic convulsions or pronounced depression were present after extirpation of the parathyreoid and thyreoid glands. It is true that it is difficult as yet to appreciate the real value of all these findings and the real nature of the poison which produces those lesions; it is, nevertheless, important to recognize the relationship between various affections and disturbances of the function of the thyreoid. Our knowledge of the ductless glands, although in its infancy, nevertheless widens from day to day: more and more facts are accumulating and all tend to show the great multiplicity of morbid symptoms produced by removal or alteration of function of those mysterious organs. The doctrine of internal secretion of these glands must be accepted, as it explains many physiological phenomena heretofore obscure.

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* Read before the Philadelphia County Medical Society, September 14, 1904.

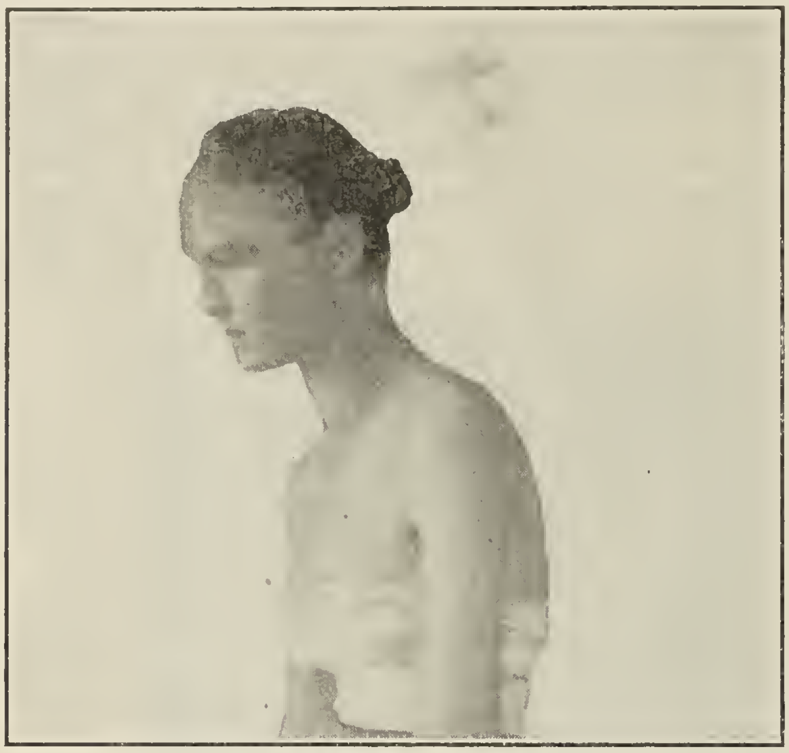
FIG. 1.—Profile of patient suffering from Graves's disease and Parkinson's disease.

In December, 1903, I had the honor to report before this society facts concerning the occurrence of diabetes mellitus and myxœdema. A careful analysis of all the data and a close observation of the symptoms before and after the treatment showed clearly the great dependence of these two morbid conditions upon deficient thyreoid function. To-night I bring before you another interesting and instructive occurrence of two morbid conditions, in which again the thyreoid undoubtedly plays some rôle. The history of the patient is as follows:

Mrs. A. D., aged thirty-nine years, whose previous personal and family histories are negative, noticed eight years ago, after her last confinement, a gradually growing goître. Two years later she began to be nervous and irritable, and shaking of arms and legs soon made its appearance. Within the two following years the tremor spread to the head and body. At the same time she began to suffer from shortness of breath, with palpitation of the heart on the slightest exertion. Shortly afterwards she noticed a gradually developing staring of the eyes. Other symptoms soon made their appearance: drowsiness with an imperative desire for sleep, "sinking" spells and headaches. About a year ago the patient noticed a rigidity of the trunk and of the upper extremities. The following symptoms were noted when she presented herself at the Jefferson Hospital for examination. Face thin and flushed, with mask-like expression, features showing immobility of muscles. Eyes, while not very protruding, were nevertheless distinctly staring and wide open. When patient was told to look downward the upper lid did not follow completely the downward movement of the globe: von Graefe's sign was therefore very suggestive. There were also nystagmiform movements upon lateral movements of the eyes. Pupils were equal, reacted normally to light and accommodation. There was high hyperopia. Eyegrounds were normal. At the base of the left side of the neck there was a large mass, evidently an enlarged thyreoid. The goître was soft and not distinctly pulsating. Measurement at the base of the neck over the centre of the goître was 32.5 cm. The examination of the heart showed a pronounced tachycardia without murmurs, but with a marked accentuation of the first sound. The maximum intensity of the heart beat was in the seventh intercostal space, external to the mamillary line. The pulse was rapid and small, beating about 140 a minute. The patient's carriage and attitude suggested rigidity of the vertebral column, but there was no real stiffness, as passive movements of the trunk were possible. The arms and especially the hands were in a characteristic position. The rigidity was only apparent. The body was bent forward, but again there was no real rigidity. When she sat down, got up or turned, the whole trunk moved like one rigid mass. The thumb was applied against the other fingers. A fine tremor was present in both hands, which increased at each voluntary act. The tendon reflexes were exaggerated. The gait was shuffling and the steps were short. There was the so called propulsion movement: when the patient was slightly pushed forward, there was a tendency to move forward for a certain length of time. The speech was rapid, monotonous, and no more varied by emotional expression than the face; she ran words and sentences together. The mental faculties were normal.

To sum up we were in the presence of a symptom group constituting Graves's disease associated with Parkinson's disease. Exception may be taken to the slight degree of exophthalmos, but it is to be remembered that this symptom may be manifested only in a "staring" of the eyes without a real prominence of the eyeballs. And on the other hand, there are cases of Graves's disease without exophthalmos. However, the goître, tachycardia, and tremor were present and marked. As to the paralysis agitans, the attitude and carriage of the patient, the stiffness and fixation, the expressionless facies, and the propulsion were sufficient signs to make the diagnosis at first glance. The tremor, however, was not very distinct, but a close observation told an experienced eye that the tremor was that of paralysis agitans.

The pathogenesis of paralysis agitans is undergoing the same fate as that of other functional nervous diseases. The microscopical findings of the cases of Parkinson's disease as reported by competent and reliable observers lead to no definite conclusions; while in some cases they are contradictory, in others they are distinct. There are, however, some records which show a more or less constant condition, viz.: that of the blood vessels: thickening of the intima and media with cellular infiltration are the usual changes found in the majority of those cases which presented pathological conditions under the microscope.

The fact that the clinical manifestations are so constant is sufficient to admit the existence of a certain influence, be it a toxine, which bears its action upon the same nervous elements in every case and produces the characteristic rigidity, tremor, etc. We also know that toxic elements in a great many cases alter first of all the blood vessels, and the nervous elements suffer secondarily. The history of syphilis is the best illustration. Clinically, intoxications, like those of mercury and arsenic, are, among other symptoms, followed by a tremor resembling that of paralysis agitans or of exophthalmic goître. In the state of our present knowledge we are not yet in a position to define precisely what particular portion of the central nervous system is affected in paralysis agitans, no more than we are in chorea or other neuroses. We can state the fact only that the function of the cerebrospinal axis is disturbed.

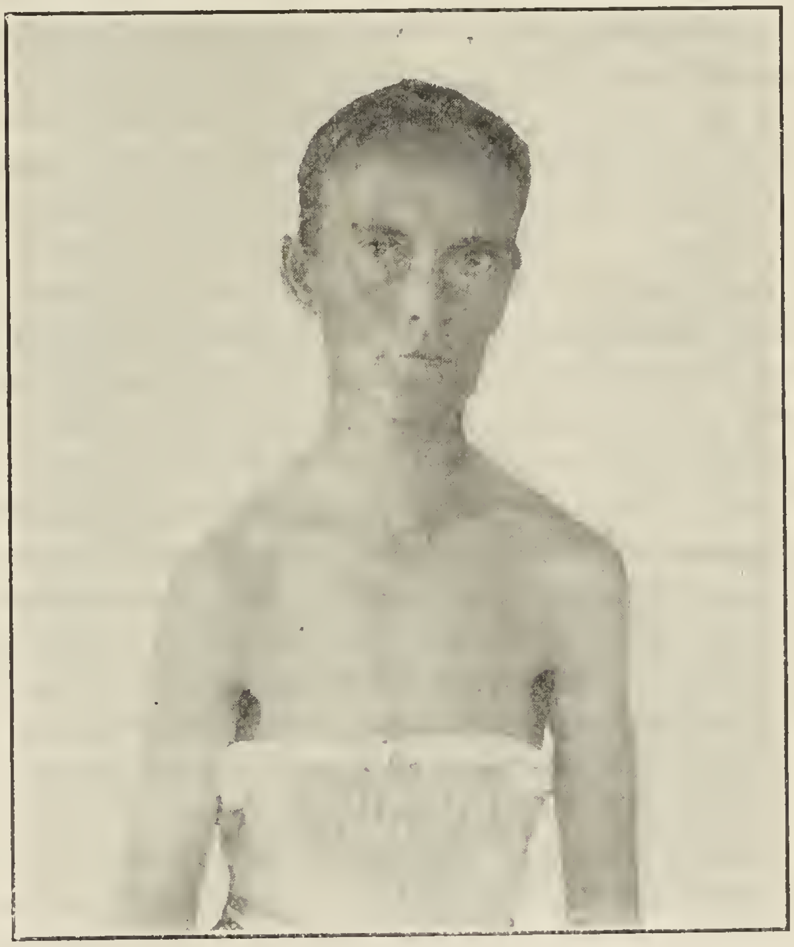

Fig. 2.—Showing the exophthalmic goître in Graves's disease as complicated by Parkinson's disease.

Since no external agent, introduced into the system, is likely to produce the symptom group in question, we are bound to address ourselves to the agents within us, which are indeed abundant. Autointoxication must be thought of and various obnoxious elements, thrown into the circulation by various glands disturbed in their function, must be taken into consideration. The internal secretion of the ductless glands must be here again referred to. The thyreoid, the parathyreoid, thymus, pituitary body, pancreas, and adrenals are all organs the intimate nature of which has not been elucidated in its entirety, but we are already in possession of quite a large number of facts showing clearly their relation to one another, and the effect of their disturbed functional activities upon the system. Here we have two diseases in the same individual, whose thyreoid gland does not supply the necessary element (whatever it may be) for neutralization of the poisonous material secreted by various organs; or else from the fact of being large or perhaps hypertrophied the thyreoid supplies in excess the neutralizing element, with this result, that in itself it is apt to act prejudicially on the organism. In my judgment it is the question of more than mere coincidence, as similar facts were reported by others. In 1883 Moebius, reporting a case of association of Parkinson's and Graves's diseases, raises the question whether the diseases are not due to a pathological condition of some gland with an internal secretion. The same view he expressed also in 1898. In 1891 Landberg reported a case of paralysis agitans associated with myxœdema, and the post mortem examination showed an atrophy of the thyreoid gland, which in the author's opinion was the cause of both maladies. Let me call your attention only to a fact reported by the Italian writer, J. Codina Castelloi in the *Revista de Medicina y Cirugía Prácticas,* 1903. He performed two necropsies (patients died with paralysis agitans); in one he found the thyreoid gland sclerosed; it weighed only nine grammes; in the other the gland was in a state of cystic degeneration. Clinically he also obtained very encouraging results with thyreoid treatment.

Other so called functional nervous diseases have been reported in association with Graves's disease, for example, chorea and epilepsy. Facts of this nature are accumulating and perhaps they are more frequently met with than reported. There is undoubtedly a wide field for physiological and chemical research, which will some day elucidate one of the most obscure questions of medical science. No doubt therapeutics will largely benefit by it. The subject is captivating just because of its obscurity.

CYSTS OF THE MESENTERY; A CLINICAL NOTE.*

By LEWIS S. McMURTRY, A. M., M. D.,
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PROFESSOR OF GYNÆCOLOGY AND ABDOMINAL SURGERY IN THE HOSPITAL COLLEGE OF MEDICINE.

Tumors in the mesentery, while rare, occur with sufficient frequency to deserve careful consideration. The literature of this subject is not extensive, and consequently all cases are worthy of record. Spencer Wells, Homans, von Bergmann, Terillon, Cooper Forster, and others have reported cases. Almost all the more common varieties of tumors have been found in this structure. Carcinoma, sarcoma, fibroma, and lipoma constitute the common forms of solid tumors that may develop in the mesentery. Cystic tumors are more commonly found here than solid tumors. In 1900 the late Christian Fenger, of Chicago, stated that about one hundred cases of cysts of the mesentery had been reported.

While our knowledge of the origin of these growths is by no means perfect, enough has been learned of their histological structure and contents to justify an effort at classification. They may appropriately be classified as (1) serous cysts, (2) blood cysts, (3) chyle cysts, (4) dermoid cysts, and (5) hydatid cysts.

Serous cysts of the mesentery are regarded by pathologists as embryonic in character, because they most frequently, if not invariably, develop in the immediate vicinity of the kidney, where metamorphoses are prone to occur in the remnants of the Wolffian bodies and ducts of Müller, and also because of the character of their contents.

Blood cysts of the mesentery are most probably the result of hæmorrhage into a preformed cyst.

Chyle cysts are very common among the varieties of mesenteric cysts. They originate in the thoracic duct, in the chyliferous vessels, or, most frequently, in the lymph glands.

Dermoid cysts are considered to be invariably congenital.

Hydatid cysts are the result of lodgment of the tænia echinococcus in the subperitoneal spaces, where it is transformed into a cyst.

Clinically, cysts of the mesentery present great difficulties in diagnosis. The tumor may grow to such extent that it fills the abdomen. The tumor is movable in all directions, and fluctuates freely, thus simulating ovarian cyst.

Serous cysts of the mesentery originate in the immediate vicinity of the kidney, and present a most difficult diagnostic problem in relation to cysts of the kidney. Mr. Greig Smith makes the dogmatic statement that it is impossible by physical signs to differentiate between mesenteric cysts and encysted peritoneal effusion.

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* A paper presented to the Louisville Surgical Society.

The symptoms in general of mesenteric cysts are those of other intraabdominal cystic tumors. When small they produce no symptoms and are usually discovered accidentally. As the tumor grows, indigestion, emaciation, and pressure pain become marked. On account of the close relation of the tumor to the bowel, pressure symptoms may simulate strangulation of the bowel. Over large tumors, the stretched bowel may be made out by percussion and palpation.

Death may result from malnutrition, as with ovarian tumors; from rupture of the cyst and consequent peritonitis, or from intestinal obstruction.

The operation for removal of mesenteric cysts presents peculiar dangers and difficulties. On account of the origin of the tumor within the peritoneal folds and close to the intestine, the mesentery is opened by the spreading tumor and encloses the bowels. So much hæmorrhage results from attempts at enucleation that in a large proportion of recorded cases, the cyst was emptied and stitched to the abdominal wall. Another difficulty to be considered is, that in enucleating the tumor the circulation may be cut off from the enclosed bowel, and resection of the bowel may in consequence become imperative.

The following case, which suggested this paper, serves to illustrate both the pathological character and clinical features of cystic tumors of the mesentery:

Mrs. D., aged 67 years, married, mother of four children, the youngest 30 years of age, was admitted to my private hospital on November 19, 1904. In the early part of August last, she observed by accident while lying in bed a tumor on the left side of the abdomen above the umbilical line. The tumor was accompanied with no pain or discomfort, but increased rapidly in size. She had not been in good general health for some time; had suffered with digestive disturbances; and had lost flesh. These digestive troubles increased as the tumor grew in size, and were doubtless the result of pressure.

When the patient was admitted to my infirmary the tumor occupied the entire left upper quadrant of the abdomen, and extended through the middle thereof to the border of the liver, occupying the entire upper abdomen. Fluctuation was distinct, and on percussion it was observed that the descending colon overlapped the cyst. It was evident that the tumor had its point of origin and attachment on the left side. It was freely movable. Vaginal examination demonstrated that there was no connection between the tumor and the uterus. The pelvic organs were normal. Analysis of the urine testified to the normal function of the kidneys. Dr. ApMorgan Vance saw the patient with me, joined me in advising operation, and assisted me in the operation.

The operation was performed on November 26, 1904. The incision was made in the left semilunar line. The tumor proved to be a serosanguineous cyst of the mesentery, arising in the colonic mesentery near the left kidney. The displacement of the colon by the tumor was such that the bowel seemed to enter and emerge from the tumor. The cyst wall was quite thin from distention, and the contents consisted of bloody serum and tissue débris. The sac was enucleated without excessive hæmorrhage. The left Fallopian tube was attached to the tumor and bled so freely when separated that a ligature was required. There was no pedicle proper to the tumor, which evidently originated and developed between the folds of the mesentery. The area of enucleation was drained through the lower angle of the abdominal incision and the abdomen closed in the usual way. The patient has made a perfect recovery after an easy and uncomplicated convalescence.

1912 Sixth Street.

SURGICAL DISEASES OF THE SIGMOID.*

By H. D. NILES, M. D.,

SALT LAKE, UTAH.

During the past year I have operated in two cases of acute obstruction of the bowels due to volvulus of the sigmoid, and have attended two patients suffering from incomplete stricture of the bowels, resulting I believe either from a twist or from some inflammatory lesion of the sigmoid. In the two former cases the diagnoses were verified upon the operating table; in the two latter cases no operation was done and consequently the diagnoses were not positively confirmed.

My interest in these cases stimulated me to review the available literature upon the subject rather carefully, and to refresh my knowledge of the surgical anatomy of the sigmoid by further study and dissections. The conclusions suggested by these investigations I have ventured to hope you might regard worthy of your consideration and discussion.

In the past our surgical endeavors in this region have been confined almost entirely to operations for advanced malignant disease or to the relief of complete obstruction due to volvulus. To limit our efforts to such emergencies, I am led to believe, means to exclude from rational treatment many surgical conditions to which the anatomical structure and relations of the sigmoid render it especially susceptible.

Those who recall that the sigmoid has the greatest mobility and the smallest diameter of any part of the colon, and that the large intestine changes at this point from a comparatively straight to an irregularly tortuous canal, will easily understand how a sagging descending colon overladen with fæcal matter might readily displace or distort the narrower, more movable, and tortuous sigmoid in a way to produce a partial or complete occlusion of the canal.

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* Read before the Utah State Medical Association, Ogden, Utah, May 11, 1904.

Even without any twist or distortion of the sigmoid, an excessive accumulation of fæcal matter in the descending colon might produce ulceration, either from over distention with interference of the blood supply and resulting gangrene, or from mechanical irritation alone. Or an ulcer from pressure might occur from angulation. Ulcers from these, or other local or constitutional causes, may here as in other parts of the intestinal canal result in perforation or cicatricial stricture.

Those who have kept in touch with the growth of our knowledge of surgical pathology in and about the pylorus, appendix, gall bladder, and uterine appendages will appreciate these peculiar conditions that favor the development of inflammatory or obstructive lesions of the sigmoid, and will readily see how these conditions might often be the causative factors of dangerous and distressing pathological changes that one could not reasonably expect to correct by any non-surgical treatment.

It is highly probable that with our vague knowledge of sigmoid disease and our uncertain means of diagnosis, the majority of cases are unrecognized, and the symptoms attributed to some obscure rectal or intestinal trouble. Reviewing my own experiences and observations I am led to believe that unless some especially urgent or significant symptoms, like acute obstruction or a tumor, be observed, the true conditions are rarely suspected or treated.

In the absence or scarcity of operating room observations and post mortem reports, our mental pictures of morbid processes in this region must necessarily be based largely upon our general knowledge of such processes in other parts of the body, modified by the physiological and anatomical peculiarities of this portion of the large intestine.

The practical surgeon will not go far amiss, however, if he divides diseases of the sigmoid first into two classes: one non-surgical, to include all morbid processes involving the mucosa only; and another, surgical to include: first, all ulcerations starting in the mucosa and later involving the peritoneal coat; second, all mechanical displacements or distortions with complete or incomplete stricture, with or without localized pressure necrosis; third, any malignant disease or benign growth; fourth, any constricting bands or disease extending from nearby structures; fifth, the various consequences that might grow out of any of the above mentioned conditions, such as peritonitis, perforation, acute obstruction, systemic infection, hæmorrhage into the bowels or peritoneal cavity, angulation from cicatrization of an ulcer, etc.

With some such classification of the possible conditions in mind, a review of the history and a study of the obstructive and inflammatory symptoms in a given case ought to give one a fair idea of the pathology and the indications for treatment.

It may not be necessary or possible always to determine before operation whether inflammatory or obstructive symptoms here are due to a half twist or a complete turn of the sigmoid, or whether they may not be due to some other distortion or angulation of the parts with inflammatory lesions as a cause or a result; but it is most important to bear in mind the grave lesions to which the sigmoid is especially susceptible and for which the promptest operative interference is often indicated. *To assume the possible existence of such surgical lesions and, if possible, to distinguish between them and an uncomplicated acute or chronic sigmoiditis due to fæcal impaction or other removable causes, becomes the first duty of any surgeon when confronted by a patient suffering from symptoms, however light, that point to disease of the sigmoid.*

An uncomplicated sigmoiditis, like inflammation of the cæcum, is a very common non-surgical pathological occurrence, often producing no noticeable symptoms and usually yielding to timely measures addressed to the removal of the cause. But just as a virulent appendicitis may have its origin in an apparently harmless cæcal inflammation, so a mild sigmoiditis may be a forerunner of a series of pathological changes of the gravest surgical importance. As in appendicitis one may not always be able to foretell the exact conditions the operation may reveal, so one may not in each case be able to determine in advance the precise sequelæ of sigmoiditis; but in the left sided pathology as well as in the right sided pathology, the dividing line between the non-surgical and the surgical conditions must be clearly defined if we are to present to our patients the benefits of a rational treatment.

There are no data for accurately estimating the relative frequency of the occurrence of surgical pathology about the sigmoid. It is said of volvulus that two thirds of all cases are in the sigmoid. There are no statistics indicating how often obstruction from other lesions occurs at this point further than the well known fact that the sigmoid is one of the commonest situations of intestinal cancer, and that it is one of the preferred sites of intestinal ulceration. All varieties of ulcer, including simple perforating, tuberculous, dysenteric, stercoral, even typhoid have been found here, and it is fair to conclude that these ulcers are preceded and followed by nearly or quite the same processes as in other parts of the intestine and demand much the same kind of treatment; viz., rest for ulcers, and early excision for cancer. Of late, many writers have dwelt upon the frequency of sigmoiditis, its varieties, causes, and treatment, but none to my mind has thus far sufficiently emphasized the causative relation that undoubtedly exists between sigmoiditis and certain terminal conditions which are revealed in late operations or upon the post mortem table, such as perforating ulcers and malignant growths with their grave consequences. Yet, if we are to be governed by our experiences and study of disease in other parts of the intestinal canal, we surely cannot escape the conviction that very often these are but a series of morbid changes, or successive steps in a pathological process that begins as a simple sigmoiditis to be relieved by the simplest measures, and ending, if unchecked, in morbid conditions nearly or quite beyond the most formidable surgical procedure.

For here, as in other parts of the alimentary canal, and the body generally, the usual antecedent pathology of malignant disease is ulceration or some inflammatory lesion, and one of the chief local causes of ulceration is some circulatory disturbance from emboli or distortion of the parts.

The generally accepted belief that every distortion or twist of the sigmoid must produce unmistakable symptoms of acute and complete obstruction of the bowels was not verified in my cases; since in Case I the attending physician was able to inject several quarts of water for three days after the first symptoms of obstruction, and in Case II, the alarming obstructive symptoms were on several occasions completely relieved by high injections. In Case III (not operated in) there were no reasons for believing the occlusion of the bowel to have been at any time complete. In Case IV (not operated in) the marked symptoms of obstruction continued for three days and were then relieved by rectal injections. Further experience will doubtless prove the fallacy of many of our present views of disease of the sigmoid, and furnish us in time with as clear a conception of pathology here as we have already acquired in other parts of the abdomen.

Pathology passes from the medical to the surgical field, 1st, *whenever any ulceration or necrotic process starting in the mucosa extends to or includes the peritonæum;* 2nd, *whenever there is any evidence of stricture at this point regardless of the cause;* 3rd, *whenever there exists a localized peritonitis that does not readily yield to simple measures directed to the suspected cause.*

In making these statements I do not wish to be understood as recommending immediate operation in all cases where the above mentioned conditions prevail, but the decision as to when and when not to interfere can, I am sure, be best made by those who view these conditions from a surgeon's standpoint.

When in doubt, and with our present means of diagnosis this will be the case not infrequently; an exploratory incision here is certainly justifiable and quite as harmless as it is in suspected disease of the appendix, the uterine appendages, gall bladder, or stomach.

CONCLUSIONS.

I. The various pathological changes to which the physiological functions and anatomical structure and relations of the sigmoid render it especially susceptible, may be regarded as successive stages or steps of the same morbid process, rather than so many different diseases.

II. An impartial study of these various successive pathological changes that precede, accompany, and follow inflammatory obstructive and malignant diseases of the sigmoid, furnishes convincing evidence of how little we can reasonably expect of medical treatment and how much we must rely upon timely operative interference to correct pathological conditions in this region.

III. Advanced malignant disease of the sigmoid is always preceded by pathological processes which we should strive to recognize *early* and correct by *timely* operative procedures.

IV. Acute obstruction due to volvulus (unless relieved promptly by inflation of the rectum with water or gas) is always an indication for operative interference.

V. Torsions of the bowel with partial or complete stricture usually demand operative interference.

VI. All inflammatory or necrotic processes that include the peritoneal coat of the gut with or without angulation or stricture of the bowel should be regarded as surgical conditions.

VII. The known frequency of cancer and all forms of intestinal ulcerations in this region, the occasional occurrence of volvulus, a practical consideration of the anatomical structure and relations of the sigmoid, combined with the lessons gleaned from a limited number of clinical experiences and post mortem examinations, all tend to confirm the belief that inflammatory lesions and obstructive distortions of the sigmoid are by no means rare; and that their rational treatment should be based upon the surgical conception of the conditions.

VIII. It is true that the history of sigmoid surgery, up to the present time, is not a long record of diagnostic triumphs and brilliant operative procedures invariably producing perfect results. But it is equally true that the fundamental principles of surgery and pathology hold as good here as in other parts of the abdominal cavity, and when, with greater experience and more mature judgment, we learn how to apply these principles in the management of sigmoid disease as successfully as we already do in appendicitis, cholangeitis, diseases of the stomach and uterine appendages, we may reasonably expect to secure proportionately as good results.

Case I.—Mrs. M., aged thirty-six years, referred by Dr. R. C. Smedley, of Brigham, Utah, from whom I obtained the following history: During the past two years patient had suffered from at least seven attacks of acute obstruction of the bowels. These were attended by obstinate and continuous vomiting, cramping pains in the stomach, great and general distention of the abdomen, tenderness, with a slight rise in the temperature and pulse, and great prostration. Cathartics apparently had no effect unless perhaps to increase the distress. The vomiting was a glairy mucus and never had a fæcal odor. These attacks lasted for several days, and in each instance relief came only after persistent use of high injections. These attacks were becoming more frequent, and the symptoms, always alarming, were increasing in severity and obstinacy, when the patient was sent to the hospital November 21, 1903. She was at that time just recovering from the severest attack she had ever had, and during which she and her friends, as well as Dr. Smedley, had nearly given up all hopes. When I examined her these symptoms had all subsided for the time, she had had several watery stools, the vomiting had ceased, the abdomen was flat and soft, and there was some tenderness in both iliac regions. Rectal and vaginal examinations proved negative. To my colleagues and myself the cause of these obstructive symptoms was obscure, but we all shared the opinion of Dr. Smedley, that the conditions justified an exploratory incision. This operation failed to reveal to us the true cause of the obstruction. One week later symptoms of acute obstruction reappeared, and, as in her previous attacks, became more alarming each day. High rectal injections proved ineffectual, and on the fourth day the abdomen was reopened, a twist in the sigmoid discovered with ulceration on the point of angulation. An inflammatory mass about the size of a hickory nut indicated the situation of the ulceration and led to the discovery of the twist. Realizing that we had friable necrotic tissues to deal with, the parts were protected and the greatest gentleness observed in our manipulations. In spite of these precautions the parts were scarcely touched before perforation occurred. The gut was brought to the incision, the diseased parts were excised, and the ends united with a double row of silk sutures. After which the pelvic colon was replaced in its normal position, the peritoneal cavity thoroughly cleansed, and the abdominal incision closed. Two days later the patient died of general peritonitis.

Case II.—Mr. B., aged forty-one years, first seen February, 1904, gave history of having been taken suddenly ill a week previously, when he suffered from terrific pains in abdomen in left lower quadrant, afterwards generally diffused throughout the abdomen, incessant vomiting, first of food, then of mucus, and for the past thirty-six hours of fæcal matter. His medical attendant had administered calomel, castor oil, croton oil, and other cathartics, and had repeatedly given high enemas of soap suds and turpentine, all without effect. When I saw the patient, February 4th, at 3 p. m., the vomiting was copious, frequent, and stercoraceous, the pulse was rapid, irregular, and very weak. The abdomen was slightly distended, the greatest distention corresponding to the contour of the colon. The tenderness was quite marked in the iliac region. I operated upon him at the Holy Cross Hospital at 5 p. m. the same day, revealing almost exactly the same conditions as were found in Case I. In this case I clamped the bowel above and below the ulceration, in anticipation of a rupture of the necrotic intestinal wall. This rupture occurred with the first attempt to overcome the twist and kink in the gut, but fortunately without any fæcal matter escaping. In this case we decided, and I think wisely, to limit our efforts to the establishing of an artificial anus, leaving the intestinal suturing to a future operation. As it was, the patient was pulseless when taken off the table and none of us thought he would live through the night. However, he surprised us, for he rallied nicely, the vomiting ceased, his bowels moved freely through the artificial anus as well as through the rectum. His convalescence has been uninterrupted and very soon we hope to close the artificial anus, and restore the pelvic colon as nearly as possible to its normal position.

Case III.—Mrs. D., aged forty-five years, first seen and examined at my office April 4, 1903. She had been more or less of an invalid for eight years. She described her illness as dating from an attack of peritonitis, first localized and limited to the left side, and afterwards general. From that time to the present, as I interpret her description of her distresses, she has suffered from local and general symptoms, apparently due to incomplete stricture of the large intestine. During these years she has never had a passage of the bowels, except after the use of a cathartic, supplemented by one or more rectal injections, aided by light massage of the lower abdomen. An evacuation is always accompanied by pain and faintness, and frequently she has lost consciousness from the severity of her sufferings. Her stools are at all times thin and frothy, containing large quantities of mucus and some blood. For many years she has had a pain in the abdomen just inside the left hip. At times when the movements are especially scanty and unsatisfactory she becomes distended, and suffers from great abdominal distress and symptoms of systemic infection, headache, nausea, vomiting. Malnutrition and long suffering have made terrific inroads in her general strength and health, and she looks, as she says she feels, a physical wreck. Examinations of rectum, vagina, stomach, heart, and kidneys are negative. There is some tenderness in the left iliac region and considerable left sided rigidity. Taking into account the history, the left sided symptoms, the character of the stools, and other indications, and being able to exclude other possible causes, I believe we are justified in making a probable diagnosis of sigmoid disease associated with a surgical pathological condition.

CASE IV.—Mr. L., aged twenty-four years, a soldier, seen in consultation with Major A. M. Smith, January 30, 1904. He had been taken suddenly ill December 23rd, suffering from intestinal colic of obscure origin; two weeks later he was well enough to return to duty; on January 23rd he had another attack, of greater intensity, accompanied by symptoms of acute obstruction. The pain and tenderness were located chiefly over the lower part of the descending colon, where there was a distinct tumor or mass of the size of a goose egg to be distinctly felt. When I saw him, these symptoms still existed and for one week previously there had been no movement of the bowels, notwithstanding the energetic use of cathartics, rectal injections, etc. Two days later, as a result of a large injection, he passed large quantities of mucus and later some fæcal matter; soon afterwards the stools became more natural and he gradually improved, to be discharged March 16th, and has remained comparatively well since. The pathological condition that produced the symptoms was undoubtedly a sigmoid ulcer with or without a twist or angulation of the gut. Major Smith, with his extensive Philippine experience, thought the ulcer to be dysenteric, and this is very probable, although a careful microscopical examination of gelatinous masses passed per rectum failed to show any amœbæ.

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Morgan County, Ill., Medical Society.—The annual election of officers in the Morgan County Medical Society, held in Jacksonville, Ill., on December 9th, resulted as follows: President, Dr. J. W. Hairgrove; vice-president, Dr. Josephine Milligan; secretary, Dr. D. W. Read; treasurer, Dr. E. F. Baker; librarian, Dr. C. E. Black; trustees, Dr. A. L. Adams, Dr. L. P. Norbury, and Dr. C. E. Black.

ENURESIS AND ITS TREATMENT.*

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In early child life there is nothing which gives the parent more concern than enuresis. If it continues to the age of puberty and beyond, it affords no end of annoyance to the persons affected and to those about them. The writer recalls a case occurring in a young woman, eighteen years of age, who had a good position and lost it because of this affection.

Eugene Field, the lamented poet of child life, had this condition in mind when he wrote that poem so full of description and paternal pathos, When Willie Wet the Bed.

In early life the child partakes of many of the characteristics of the lower animal. The beast micturates when and where he wills, and so does the infant, but as the infant grows to childhood and the muscles and nerves controlling micturition develop, nature teaches him certain rules of toilet. The great majority of children learn, but a few continue to suffer from the lack of control of micturition. This usually occurs soon after slumber or perhaps during the night *(Enuresis nocturna)*, but it may take place during the day *(Enuresis diurna)*.

A case is recorded by Henoch in a boy who would involuntarily micturate only when wearing certain pantaloons, and never on Sunday.

These cases are usually brought to us with the diagnosis already made by the parent, but before beginning treatment, we should obtain a full history of the case, and examine it thoroughly, for often enuresis is but a symptom of organic disease, occurring, though rarely, in diabetes mellitus and insipidus, nephritis, cystitis, papilloma of the bladder, vesical lithiasis, oxaluria, and phosphaturia, and sometimes following long continued fevers. In such cases an examination of the urine will be of great assistance.

A history of a nervous disease such as chorea, epilepsy, anterior poliomyelitis, Friedreich's ataxia, idiocy, and cretinism is also to be sought.

Having excluded the above factors, it is advisable to inquire for conditions which might produce enuresis in a reflex manner. An examination of the throat and nose is necessary, for in many cases hypertrophied tonsils or adenoids demonstrate the strumous cachexia, which may underlie this condition as do night terrors (Sokolowski A., Relation of Adenoid Excrescences of Nasopharyngeal Cavity to So Called Enuresis Nocturna, *Gaz. lek. Wars-*

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* Read before the Section of Medicine, Buffalo Academy of Medicine, April 12, 1904.

zawa, 1892). Jacobi, and more recently Beilby (*American Medicine,* March 5, 1904), trace a causal relation between masturbation and enuresis. Enuresis may also result from increased reflex irritability of the neck of the bladder from too great an expansion of the neck of the bladder due to drinking large quantities of water.

Other reflex sources, such as errors of refraction, the round worm, the pin worm, hæmorrhoids, rectal fissure, umbilical or scrotal hernia, lack of descent of the testes, phimosis, exstroversion of the bladder, epispadias or hypospadias, a small meatus, relaxed condition of the sphincter vesicæ are to be sought and, if present, to be corrected.

Having excluded the foregoing causes, and assuming that enuresis is a neurosis produced by (1) an atony of the muscle and (2) an insufficient innervation with (3), as stated by Beilby, a hypersensitiveness of the lumbar centres, there are several modes of procedure in its treatment.

(1). *Hygienic.*—The child should be taught the principles of a hygienic life. So far as possible he should have an out of door life and eat nutritious food at regular intervals. Coffee, tea, spirituous liquors, and condiments should be excluded from the diet; the bladder should be emptied and no liquids given before retiring. The bed should be hard, and the room well ventilated. It is also well to awaken the child once during the night to empty the bladder.

(2). *Psychical and Suggestive.*—The French school (Henoch) use hypnotic suggestion in the treatment of this condition with evidently good results (Liebault professes to have cured cases by suggestion).

It is a great error to employ corporal punishment in these cases, for thereby the child goes to bed in dread, and fretful, and the sleep becomes disturbed. Would one punish a child for a *tic convulsif* or the awkward movements of chorea or athetosis? It is far better to reward the patient for not wetting the bed than it is to punish him for so doing.

It is imperative for the physician to gain the confidence of the patient, for the better results in the treatment of this affection are no doubt due to suggestion in combination with other methods of treatmen.

(3). *Physical or Mechanical.*—Jacobi advises gentle massage of the whole body, sponging with alcohol, friction, and sea bathing. Hydrotherapeutic measures are advocated by Kellogg, such as the cold rubbing sitz bath. The patient is seated in a sitz bath, his feet in a hot foot bath, the head cooled and protected by a wet towel, and the attendant vigorously rubs the hips, back, and thighs. The rubbing continues during the entire bath, for three or four minutes, the temperature of the bath being from 65° to 55°.

The cold spinal douche, followed by a rub, is also valuable. Professor Krauss, of the Vienna Poliklinik, has used massage, a modification of the Thüre Brandt method, which has been employed by the writer in conjunction with a drug to be referred to later, with very good results.

This method is partially referred to by Kawikowitsch, M. J., of Kiew (*Archiv. f. Kinderheilt,* 1892, XIV, 194), who reports cases treated by the method of Csellag with six recoveries. This treatment consists of massage, locally to remedy the weakened and insufficient action of the detrusors and sphincter vesicæ.

The movements are as follows:

(1). The rectum is freed of fæces, and massage is applied by means of the index finger to the sphincter vesicæ. The idea of this procedure is based on an assumption of a relaxed condition of the sphincter vesicæ. The child lies in the lithotomy position and, with the index finger in the rectum, the sphincter vesicæ is gently tapped by the operator for half to one minute.

(2). A deep circular massage is applied over the hypogastric region for two to three minutes.

(3). The patient, lying in the dorsal position with the knees tightly drawn together, is told to resist while the knees are drawn apart; and, with the knees widely separated, he is asked to resist while they are drawn together. The same resistant adduction and abduction movements are also employed with the legs. These movements occupy about two minutes.

(4). The patient, standing against a wall or door, crosses and recrosses one thigh over the other for a period of five minutes.

(5). The patient is next taken across the knee, and with the side of the hand the lumbar and sacral regions are sharply tapped very frequently by the operator, thus giving a vibratory sensation.

In addition, as an excellent adjuvant, especially for its mental effect, electricity may be employed. W. E. Stevenson recommends the use of the galvanic current, a pad with the negative pole over the lower dorsal region and a small button electrode in the perinæum; a weak current is used for eight to ten minutes each day.

The medicinal treatment of enuresis *per se* will not give the desired results. One has but to note the large number of drugs which have from time to time been advocated, conclusively to convince himself that no drug alone is a specific.

Young (*American Journal of Medical Sciences,* 1843) recommended the nitrate of potassium. Goodhardt and Still (*Diseases of Children,* 1902) use the fluid extract of rhus aromatica, five drops three times daily for infants; ten drops between two and ten years of age, and fifteen drops for older children. Krauss (*Buffalo Medical and Surgical Journal,* 1891-2, XXXI, 137-140) has employed it with good results. Cantharides, ergot, and tincture of lycopodium, oil of turpentine, the bromides, and strychnine have been used. Trousseau was the first to advocate belladonna. Holt, Kerley, and Bruce Jones have all used with satisfaction a solution of atropine, one grain to two ounces of water, five drops at four, seven, and ten p. m.

This drug, given with the movements and the hygienic and suggestive methods to which I have referred, will usually give excellent results, as they were employed by me in the two cases as follows:

(1). S. E., aged twelve years, has had nocturnal enuresis since early childhood. He had incontinence of urine in bed every night. All of the reflex conditions are excluded, but the boy is undersized for his age and of a neurotic temperament. He was placed on the foregoing treatment November 6, 1900, and discharged December 11th, since which time there has been no recurrence.

(2). J. N., aged twelve years, micturated in bed once or twice a week; he was seen December 12, 1901. He was pale and anæmic, and the examination of the nasopharynx revealed adenoids which were removed, and the treatment described was used for one month, since which time there has been no return.

400 Franklin Street.

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Changes Proposed for Safeguarding the Health of the Commonwealth.—It is reported that a bill will be introduced early in the coming session of the Pennsylvania State Legislature to provide for a complete reorganization of the State board of health. The bill, it is understood, will provide for the establishment of county boards of health and county and township health officers. It will also provide for a uniform system of notification of transmissible diseases throughout the State. The medical officer of the county is to be a practising physician of at least five years' experience and to have some special knowledge of sanitary law and administration. The county court will name the health officers for the various townships subject to approval of the State board of health. The act will thus provide salaried positions of authority for 1,500 physicians. The medical officer of health, the township health officers, and the county commissioners will constitute the county board of health under the new law. These boards will meet once a year unless called more frequently by the county health officer. It is hoped that when the system is thoroughly established and in working order to prevent the occurrence of such epidemics as that of typhoid fever which recently caused so much loss of life and so much inconvenience at Butler.

FREIDREICH'S ATAXIA: REPORT OF AN UNUSUAL CASE.

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The family ataxias so frequently render the sufferer unable to follow any occupation that the following case, in which the patient was able to perform comparatively hard manual labor for a number of years, is of interest:

Clinical History.—The patient, an adult male, 44 years of age, was admitted to the Charity Hospital on May 30, 1904. He complained of being "unable to walk properly."

His father died at the age of 60 years, of malaria. His mother died when about the same age, of some sort of "fever." He had four brothers, two of whom are living and well. A third was killed in the war. The fourth suffered from the same trouble as the patient and committed suicide at the age of 35 years. He had two sisters, one of whom was an epileptic and died while young, of some unknown cause. The other suffered from the same trouble as the patient and his brother. She died from some unknown trouble at the age of 37 years. The brother and sister who were similarly affected were both younger than the patient. The patient did not know whether any of the others was younger than he. Careful questioning failed to obtain a history of any other cases in either the father's or the mother's family, or in the collateral branches of his family. There was no history of tuberculosis or of any nervous trouble.

Personal History.—The patient was born in Mississippi, and spent his whole life in that State. He had what he termed "black tongue" while an infant. He had measles when 30 years of age, but denied having had any other infectious diseases. He denied venereal diseases. He used alcohol for a few years, but not to excess. He formerly used coffee, but stopped it, as it made him nervous.

He worked at farm work of all kinds, hiring to any of the neighboring farmers, until he was 30 years old. While never able to perform any heavy work, he was able to plough, drive, and do most of the lighter duties required of him. Two years before giving this up, he found increasing difficulty in walking. When 30 years of age he became so disabled that he had to use crutches. About this time he changed his occupation to that of a country school teacher. He had had such an education as the schools of his State afforded and obtained an appointment. This occupation he followed until two years ago, when the increasing ataxia in his hands compelled him to abandon this work also. He never married.

The disease began when the patient was about 6 years of age. He described the early condition in the following way: "I was never able to walk and run like other children. My parents thought me weak. I think it was simply unsteadiness."

He was backward at school in his studies. The unsteadiness grew slowly and almost imperceptibly. In 1880 he was obliged to use a cane, and in 1890 crutches became a necessity. In 1900 he noticed the same unsteadiness in his hands, and in 1902 he found he could not write. His eyesight had failed, but he could still see to read with glasses. He had never had any diplopia or ptosis. His hearing was good. He had had no pains of any kind, except three weeks before, an attack of what he called "rheumatism" in his left shoulder. He had had a cough for two to three weeks, but no expectoration.

The patient was well nourished. The mucous membranes were of good color. He was unable to stand without assistance. In sitting, his back was markedly curved and his head bent forward on his chest.

The examination of the heart, lungs, and abdomen was negative. The urine was pale yellow in color, acid in reaction, and possessed a specific gravity of 1.024. There was no albumin, sugar, or casts. The examination of the blood was negative. The bones and joints were normal.

Nervous System.—There was no paralysis. There was no muscular atrophy, except in the thenar and hypothenar eminences of the right hand. These muscles showed fibrillary twitching and diminished reaction to both faradaism and galvanism, but no reaction of degeneration.

The motor power was diminished, but equal and more than would be expected from the apparent weakness. There was increased muscular tone.

The supraorbital and facial reflexes were active. There was no jaw clonus. The scapular, triceps, and supinator-biceps reflexes were increased. The superficial reflexes, abdominal and cremasteric, were active. The knee jerks were markedly increased. There was no Achilles tendon reflex. Babinski's sign was present on both sides. Sensation to pain, touch, and temperature was diminished in the hands and feet. There were no areas of anæsthesia. Ataxia was marked in all four extremities. The trunk and head showed curious swaying movements from side to side and backwards and forwards, which was increased when he attempted to control them. He had apparently little control over any of his movements, even with the eyes open. The gait was staggering and uncertain; he was unable to stand without his crutches, and could only walk slowly and with great uncertainty with them. He was unable to correctly localize the position of his limbs with his eyes closed. He was able to recognize objects from their shape, but had little knowledge of weight. He had no subjective sensory disturbance, except constantly cold feet. There was no disturbance of the bladder or rectum. He had no optic atrophy and no disturbance of the other cranial nerves. There was well marked lateral nystagmus.

His speech was slow and drawling, and at once attracted attention. Each word was spoken as if it was an effort and each syllable was carefully pronounced. The spinal column presented a marked anteroposterior curve, with the convexity posterior and most prominent at the sixth dorsal spine. There was no scoliosis. The feet presented the characteristic deformity known as pes cavus in an extreme form.

This case is presented to bring forward the fact that cases of hereditary ataxia are not necessarily doomed to chronic invalidism. While it is true that the majority of cases terminate, when the onset is early in life, about the twentieth year, it should not lead to an abandonment of all attempts to educate the unfortunate patient. It is well recognized that there is little, if any, impairment of the mental faculties, and this will allow of mental training. Reeducation, after the method of Fraenkel, does not seem to have been tried, and judging from the success met with in the treatment of tabes, it should be given a trial. As the disease seems to rest on some inherited defects in the resisting power of the neuroses, no treatment except that of a palliative nature is of any value. The patients suffer no pain and are comparatively comfortable, except for the ataxia. Death usually occurs from some intercurrent trouble.

Gowers mentions several cases in which the patients were able to follow their occupations and earn a livelihood for many years. The disease may have its onset late in life, as in several of Sanger Brown's cases.

Therapeutical Notes.

Whooping Cough.—*Revue française de médecine et de chirurgie,* for November 14, 1904, quoting *Hygiène thérapeutique,* states that a child suffering from whooping cough should occupy a large, sunny, and well aired room. The diet should be substantial, but not bulky. During the acute attacks, the little patient should have his head supported and the mouth should be gently cleansed of mucus. The eyes and ears should be frequently washed with boiled water, and the following should be used:

℞ Menthol ....20 centigrammes (3 grains);
Boric acid }
Resorcin } of each........2 grammes (30 grains);
Petrolatum ....30 grammes (1 ounce).

M. Place a morsel, the size of a pea, in each nostril three times daily.

Bromoform, belladonna, and antipyrin are useful internally, when such medication is required.

Treatment of Malignant Growths With the Salts of Quinine.—Lemoine is cited in *Nouveaux remèdes,* for December 8, 1904, as stating that such treatment cannot be considered specific. He recommends, however:

℞ Quinine acid hydrochloride..10 grammes ($^1/_3$ ounce);
Distilled water..........100 grammes ($3^1/_3$ ounces).

M. To be used as a dressing on cotton.

Jaboulay's hypodermic injection is:

℞ Quinine acid hydrochloride..25 grammes ($^5/_6$ ounce);
Water ....50 grammes ($1^2/_3$ ounce).

M. Inject about 15 minims, twice daily.

From 15 to 25 grains of the same salt may be given by the mouth daily.

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DR. FOSTER'S TWENTY-FIFTH ANNIVERSARY.

It is just twenty-five years ago to-day since Dr. Frank P. Foster became the editor of the *New York Medical Journal.* The *Journal* was then a slim monthly, with a local circulation, and its later growth into an influential weekly with a world-wide circulation is familiar to all. The readers of the *Journal* will be glad to learn of the rounding out by Dr. Foster of a quarter century of honorable, active, and efficient service in the cause of medical science, and will join the publishers in congratulating him and wishing him many more years of useful activity in the field which he has so adorned and enriched.

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THE CLOSING YEAR.

The year 1904 cannot be said to have been marked by any epoch making advance in medicine, but the pursuit of medical knowledge has, nevertheless, been steady and directed along lines that seem to lead infallibly to striking results which must be realized before long. Noteworthy features of the study of preventive medicine have been the establishment of such special centres of observation as the Rockefeller Institute, the organization of the British commission for the investigation of cancer, Wassermann's continued researches into the mysteries of immunity, the vigorous prosecution of inquiries concerning the management of pulmonary consumption, and the advancing exposure of the noisomeness of food preservatives. The organization of a suitable medical service for the Panama Canal Zone has been a notable achievement.

In physiology, with all its bearings on practical medicine, of great moment have been such studies as Sajous's in the matter of internal secretions. The variants of ordinary solar light—if they may be so termed—which have within very recent years been made known have been subjected to diligent and not altogether unprofitable inquiry as to their therapeutic properties. Though the Röntgen rays, radium and other radioactive substances, and such modifications of light as were devised by the late Professor Finsen may not as yet have served to extend phenomenally our control over malignant disease, the advantages that have already been derived from their employment are tangible enough to give great promise of their coming usefulness. Amid the enthusiastic efforts of chemists to furnish us with new derivatives and synthetical compounds possessed of more or less wonderful remedial properties, time has been found to subject at least one old article of the materia medica—yeast—to such observations as bid fair to rescue it from disuse. Among attempts to remedy disease by surgical procedures, perhaps the operation of renal decapsulation has been studied during the year with more assiduity than any other, but its value must still be said to be *sub judice.*

While, therefore, as we remarked at the outset, the year has not been marked by any phenomenal event, it has been one in which there has been a hopeful continuance of the methods of research that of late years have taken the place of the less orderly ways of times as yet by no means beyond the memory of men who are still living. Such methods may not often lead directly to momentous results, but assuredly they furnish the best attainable safeguard against serious error.

ETHER AND CHLOROFORM AS ANÆSTHETICS.

Though to our mind the superiority of ether to chloroform as an anæsthetic, on the score of safety, has again and again been overwhelmingly proved, there can be nothing but advantage in weighing every well founded contribution to our knowledge of the multitude of details bearing upon the relative manageability of the two drugs. Clinical tests must, of course, be accepted as decisive, but laboratory experiments must at the same time be allowed their due weight—not that they should be permitted to override the plain showings of clinical experience, but that they cast sidelights the recognition of which is indispensable to that complete comprehension of the subject to which we hope ultimately to attain. A learned French writer, M. Jaquet, of the faculty of Basle, has lately (*Semaine médicale*, December 7th) made an illuminating digest of the principal recent experimental data pertaining to the matter. They relate to the action of the two drugs on nervous tissue, both central and peripheral, to their comparative effect on the respiration and on the circulation (the most striking purport of which is to throw doubt on the Hyderabad commission's inference that the stoppage of the heart as a result of poisoning with either anæsthetic is the result of the preceding arrest of the respiration), to the degree of concentration of the anæsthetic vapor as affecting the dangerousness of its action, to the effects of the two agents on the blood pressure, and to the part played by prolonged and repeated anæsthetization.

We cannot undertake to give even a summary of all the data bearing on these various points, but we may present M. Jaquet's conclusions. Ether and chloroform, he says, are identical as regards the way in which they produce anæsthesia, but they exert distinct secondary actions which play an important part in determining their comparative safety. Chloroform decidedly depresses the heart as well as the breathing, and lowers the blood pressure. Ether, on the other hand, does not give rise to these effects unless the toxic dose is reached. Nerve tissue exposed to contact with comparatively dilute chloroform vapor is killed, while ether vapor produces only a transitory functional inactivity. The range of manageability is much greater with ether than with chloroform. Prolonged anæsthesia from ether is better borne than that from chloroform. Chloroform causes parenchymatous degeneration of all the organs, and such degeneration affecting an organ already enfeebled may result in death; ether produces no appreciable histological lesions. The pulmonary troubles that sometimes follow anæsthetization with ether are the fault of him who administers the drug rather than of the drug itself. The growing favor with which ether is regarded as a surgical anæsthetic is justified; it is less dangerous than chloroform.

THE PUBLIC HEALTH AND MARINE HOSPITAL SERVICE.

Surgeon General Wyman's annual report for the year ending June 30, 1904, recently published, is a volume of 677 closely printed pages. It deals with the performance of duties that are ever growing more and more extensive as our country finds itself increasingly constrained to take part in the affairs of the world at large. This increase is consequent not only on our recent accessions of territory, but also on the growing need of extending some branches of the service to activity in lands that are not under our own control or protection. Necessarily the demands upon the personnel of the service have been much multiplied of late years, as is shown by the fact that at the close of the period covered by this report there were 194 acting assistant surgeons on duty, although there were at the same time only 118 commissioned officers. It is hardly reasonable to expect that the work called for by the service will be diminished, and it must be said therefore that the number of commissioned officers ought to be very decidedly augmented.

During the year aid was rendered by officers of the service to the Revenue Cutter Service, the Steamboat Inspection Service, the Life Saving Service, the Coast and Geodetic Survey, the Lighthouse Service, the Civil Service Commission, and the Isthmian Canal Commission. Besides all this, in its own proper sphere the officers of the Public Health and Marine Hospital Service did the professional work of the twenty-two marine hospitals and the 122 relief stations provided by the government, together with the Sanatorium for Consumptives at Fort Stanton, New Mexico; made notable researches into the causes and management of epidemic diseases; did a large part of the quarantine duty required by the laws; managed the purveying depot in New York; and inspected 840,714 immigrants. So varied are the requirements of the service that they call for an immense aggregate of work. As to the quality of the work actually done, no comment is called for further than the simple statement that it has realized the ever rising standard that Surgeon General Wyman long ago taught us to expect.

HOSPITAL MANAGEMENT.

As a model let me take the Harper Hospital, of Detroit, of which I am chief of staff. First, let me say that our hospital is not a public hospital. It is founded on a bequest by Mr. Harper, and has a little endowment which is for the free treatment of poor people. It is about self-sustaining at present. When it runs behind we try to make it up by subscriptions. It averages about 130 patients, but all pay except those in the endowment beds. We have no city hospital, and the city sends its poor to our institution and other hospitals of the city, and pays for them so much a week. The Harper Hospital is managed by a board of trustees, and they virtually fill vacancies in their number. These trustees are business men who try to manage the hospital to the best of their ability, also follow any wish of the staff so far as they are able. The chief of staff attends their meetings and makes suggestions. A meeting of the medical staff is called occasionally, and suggestions are made which are presented to the trustees by the chief of staff. When by resignation, which seldom occurs, or by death there is a vacancy on the medical staff, it is filled by the trustees, as a rule, on recommendation and with the consent of the medical board; not that the trustees have not the right to appoint anybody they please, but they defer to the wishes of the medical staff, and therefore we have run along smoothly and without any trouble.

The medical and surgical staff is appointed in January for one year, but has always been reappointed for many years. Still, this gives the trustees the right to decline to reappoint any or all if they desire. We have virtually four men in each department, and if there is a vacancy in any of these departments the three other men, as a rule, agree on the appointment of somebody. They generally seek for some man who is not only able, but congenial, one who will bring patients to the hospital. Patients as a rule are brought to the hospital by the attending physicians, so that a man who has a large general practice and influence and can bring the sick to the hospital is selected. Our hospital, however, is liberal. The doors are open to anybody and everybody to bring patients and treat them in the hospital, even in the wards. About 150 or 200 physicians have patients in the hospital every year, both in the private rooms and in the wards. As the physicians not on the staff are treated just as well as though they were members of the staff, and the same deference is shown to them, outside physicians have no hesitancy in bringing patients, and by that means they can show how many patients they are able to send to the hospital every year. Some outside physicians only take two or three to the hospital a year, while others bring forty or fifty. It is but natural that in the course of time, if there is a vacancy, one of these outside physicians who has done a great deal for the hospital by sending patients there is selected to fill the vacancy.

There is another thing in connection with this. Harper Hospital is connected indirectly with the Detroit College of Medicine. Clinics are held there twice a week. Almost all the members of the staff are connected with the faculty of the college, and selections for the staff are made also somewhat in reference to their connection with the college; that is to say, many of the men, in fact nearly all of them, who work in the dispensary of the hospital also give the students clinical instruction and sometimes lecture. They gradually work their way up and are those who succeed and get a practice and send patients to the hospital, and then they are selected as vacancies occur. This is of advantage to the hospital and also to the college, because these men are trained to be teachers for years and can give good instruction to the students. Once in a while an outsider gets in who has worked up a large practice, although he is not connected with the college and does not wish to be, but that is an exception. The great point with us is that there is harmony in the working of the trustees, the staff, and the college, and thus we work along smoothly with very little friction. The chief of staff always stands between the trustees and the staff of the hospital, working for the medical staff and also restraining it if necessary. All round we have a very harmonious profession.

In my experience I have found that the hospital deteriorates when the executive heads do not work together. The superintendent must be a man of strength and manage the institution. He must work hand in hand with the chief of staff. The senior house physician must have control of the internes and pharmacists and be under the control of the chief of staff. The head nurse must have absolute control of the nurses without any interference by the house physician, and still must work hand in hand with the superintendent and the chief of staff. As soon as there is disagreement or any do not obey the rules there is trouble, and one or the other or all must get out. You see that we work on a kind of merit system. The man who has been a good house physician will probably get a position in the dispensary and be connected in some capacity with the college. Thus he will gradually work his way up. That man also will succeed outside and will build up a practice, and then will be in the line of promotion and appointment when vacancies occur. We have no nepotism. All appointments are made for the good of the hospital only.

To conclude, I would suggest: 1. The trustees of a hospital should select the best members of the medical profession for the staff. 2. They should select members of the staff who are congenial. 3. They should select a chief of staff who can devote some time to seeing that the details of medical management are properly carried out. 4. They should select a superintendent and let him manage everything connected with the business part of the hospital. In the selection of his subordinates he ought to have absolute control. 5. The principal of the training school should be selected after consultation with the superintendent and the chief of staff. She ought to have absolute control of the nurses. 6. House physicians should be selected by competitive examination, and the senior house physician should have been in the hospital at least a year. He should have absolute control over all the house physicians, but subject to the chief of staff. All his orders should be immediately carried out by the juniors, but the latter should be privileged to appeal to the chief of staff. 7. The work of the house physicians, the nurses, and the orderlies must be carefully carried on, each assigned their duties down to the minutest detail, and each be obliged to carry out the work. 8. The hospital should be absolutely open to every reputable practitioner to treat the patients he brings there, in the wards as well as in private rooms. 9. This will lessen the tendency to put up more hospitals that are not needed, and will enable every physician, even the beginner, to have the advantage of hospital treatment for his poor patients. 10. Daily consultations between the superintendent, chief of staff, principal of the training school, and senior house physician should be carried on. Everything going on should be known to all of these, and all troubles immediately settled.

J. H. CARSTENS.

INACCURATE CLINICAL THERMOMETERS.

We learn that since the appearance of the article on Inaccurate Clinical Thermometers, which was published in our issue of October 22nd, small dealers from all over the country, from Maine to California and from Minnesota to Florida, have been sending thermometers to the United States Bureau of Standards for testing, that in some cases the proportion of thermometers rejected has been as high as seventy-five per cent., and in many instances the errors observed amounted to seven-tenths of a degree or even more. The results of these investigations are the most convincing evidence that Mr. Mayo did not overstate the evil of the conditions existing in this department of the surgical instrument trade. The manufacturers seek to evade responsibility by throwing the blame for cheap and necessarily inaccurate thermometers upon physicians and hospital authorities. Unfortunately, the evidence produced indicates a woeful disregard on the part of all concerned of the need for accuracy in these important clinical instruments, and we cannot too strongly impress upon our readers that they cannot hope to obtain satisfactory instruments at the very low prices which are generally paid for such goods by the hospitals.

THE DOCTOR IN SOCIETY EVENTS.

Physicians and members of their families seem to be figuring more and more in the newspaper notices of events in "society." For example, in the *New York Times* for Thursday of this week there were ten items under the heading of What is Doing in Society, and physicians or members of their families were mentioned in six of them.

News Items.

Society Meetings for the Coming Week:

Monday, *January 2nd.*—New York Academy of Sciences (Section in Biology); German Medical Society of the City of New York; Morrisania Medical Society, New York (private); Brooklyn Anatomical and Surgical Society (private); Corning, N. Y., Academy of Medicine; Utica, N. Y., Medical Library Association; Boston Society for Medical Observation; St. Albans, Vt., Medical Association; Providence, R. I., Medical Association; Hartford, Conn., Medical Society; South Pittsburgh, Pa., Medical Society; Chicago Medical Society.

Tuesday, *January 3rd.*—New York Neurological Society; Buffalo Academy of Medicine (Section in Surgery); Elmira, N. Y., Academy of Medicine; Ogdensburgh, N. Y., Medical Association; Syracuse, N. Y., Academy of Medicine; Hudson, N. J., County Medical Society (Jersey City); Androscoggin, Me., County Medical Association (Lewiston) (annual); Baltimore Academy of Medicine; Medical Society of the University of Maryland (Baltimore).

Wednesday, *January 4th.*—New York Academy of Medicine (Section in Public Health): Society of Alumni of Bellevue Hospital; Harlem Medical Association of the City of New York; New York Genitourinary Society (annual); Medical Microscopical Society of Brooklyn; Medical Society of the County of Richmond, N. Y. (New Brighton) (annual); Penobscot, Me., County Medical Society (Bangor); Bridgeport, Conn., Medical Association.

Thursday, *January 5th.*—New York Academy of Medicine; Brooklyn Surgical Society; Society of Physicians of the Village of Canandaigua, N. Y.; Boston Medico-psychological Association; Obstetrical Society of Philadelphia; United States Naval Medical Society (Washington); Medical Society of City Hospital Alumni; Atlanta Society of Medicine.

Friday, *January 6th.*—Practitioners' Society of New York (private); Clinical Society of the New York Post-graduate Medical School and Hospital; Baltimore Clinical Society; Manhattan Clinical Society.

Saturday, *January 7th.*—Manhattan Medical and Surgical Society, New York (private); Miller's River, Mass., Medical Society.

NEW YORK.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending December 24, 1904:

	December 17.		December 24.	
	Cases.	Deaths.	Cases.	Deaths.
Measles	103	12	163	4
Diphtheria and croup	329	40	338	49
Scarlet fever	184	13	227	15
Smallpox	2	..	1	..
Chickenpox	126	..	185	..
Tuberculosis	310	134	347	143
Typhoid fever	72	16	60	17
Cerebrospinal meningitis	..	26	..	17
	1,126	241	1,321	245

Beth Israel Hospital.—The annual meeting of the donors, patrons and members of the association of this hospital was held on December 27th. Eleven directors were elected to replace those retiring.

Medical Society of the County of New York.—At the regular meeting of this society at the Academy of Medicine on December 27th, the following was the programme: Limitations of Office Practice in Rectal Diseases, by Charles B. Kelsey, M. D.; Local vs. General Anæsthesia in Rectal Diseases, by James P. Tuttle, M. D.; Chronic Constipation; a Rational Treatment, by Dwight H. Murray, M. D., of Syracuse. Discussion by Dr. Gant, Dr. Erdman, Dr. Bodine, and others.

New Branch Hospitals Planned.—Deputy Charities Commissioner James J. McInerny has decided to recommend the construction of two large additional buildings for hospital uses, one in the busier part of Brooklyn and the other at Coney Island. All of the Brooklyn hospitals, according to the commissioner, are taxed to the limit of their facilities. The new buildings are to be branches of the Kings County Hospital if they are authorized.

The Sons of St. Patrick distributed $1,500 as follows on December 24th: St. Vincent's Hospital, $250; Mission of Our Lady of the Rosary, for the protection of Irish immigrant girls, $250; Presbyterian Hospital, $150; Roosevelt Hospital, $100; St. Francis Hospital, $100; St. Joseph's Hospital, $100; Mount Sinai Hospital, $100; Seton Hospital, $100; the Little Sisters of the Poor, $150; the Dominican Sisters of the Sick Poor, $100; New York Post Graduate Hospital, $100.

The New York Skin and Cancer Hospital.—Dr. A. F. Currier and Dr. J. R. Goffe have been appointed gynæcologists at the New York Skin and Cancer Hospital. A gynæcological clinic will be held at the hospital, corner of Second Avenue and Nineteenth Street, every Tuesday and Friday afternoon, from 2 to 4, and patients will be very gladly received. It is requested that physicians come with their patients or send a letter with them in order that they may be kept informed as to the patients' condition. Patients in the early stages of cancer are especially desired for observation and treatment. Should operative treatment be required, it is especially desired that the patients' physicians should be present, as it may be of great service to them in the subsequent care of their cases.

The Death of Dr. William Gilfillan.—*Whereas,* The medical and surgical staff of St. John's Hospital, Brooklyn, feel deeply that a loss has been sustained by themselves personally and by the institution whose interests they guard, in the death of William Gilfillan, M. D.; *Resolved,* That the staff tender to his family the expression of their earnest and affectionate sympathy. His long and faithful service in the profession and in St. John's Hospital brought him into very close personal communion with his medical brethren. He was a loyal gentleman, never deviating from the best traditions of the profession of medicine. He was a man of courtesy and gentleness, courage, skill, and great patience. These qualities brought to him well deserved respect and regard. Association with him was a privilege, and we look upon his departure with profound sorrow. Committee: Alexander Hutchins, M. D., Henry A. Fairbairn, M. D.

Columbia College of Pharmacy.—At the regular meeting of the Columbia University Council on December 24th affairs of importance relating to the College of Pharmacy were discussed. Plans looking toward the advancement of requirements for several degrees in the newly merged school were adopted. The council decided that the degree of graduate in pharmacy should be conferred at present and until further action by the College of Pharmacy at a separate commencement. It was decided, however, to raise the requirements for the course leading to the degree of pharmaceutical chemist, which will hereafter be a university degree. Candidates for this degree will be required to meet a much higher standard of admission than that fixed for the degree of graduate in pharmacy and to pursue a course extending over two full academic years. After 1907 the advanced degree of doctor of pharmacy—which now is conferred upon those who hold the degree of graduate in pharmacy and take an advanced course in addition thereto—will be conferred only upon those who hold the degree of pharmaceutical chemist and take an advanced course in addition thereto.

New Plan to Treat Tuberculous Patients.—The New York Throat, Nose, and Lung Hospital opened a dispensary on December 19th for the special treatment of patients afflicted with pulmonary consumption. The patients will live at home, and visit the dispensary three or more times weekly for treatment, advice, medicines, and in some cases for food and clothing. They will be carefully instructed in the way they should live, and thus each patient will be made a centre for disseminating information for controlling and eventually stamping out the disease.

It is supposed by the laity that the ideal treatment of consumption should be carried out in a sanitarium properly located in the country. This, however, as we know, is impractical, even with the majority of well to do patients, who find it inconvenient, and often impossible, to leave business interests and family. With the very poor it is out of the question. To separate every consumptive from his family and keep him in a sanitarium until he is well, and to provide not only for him, but his dependent family, is a problem so vast and involving such an enormous annual outlay that it cannot properly be considered. The proper way to stamp out the disease is to improve the condition of the tenements, and to teach the people how to maintain sanitary homes. When this is done the treatment received at the New York Throat, Nose, and Lung Hospital will accomplish more than a sanitarium.

PHILADELPHIA.

Marriage.—Dr. William Bradford Eaton and Miss Mary H. Walker, of Falls of Schuylkill, were married on December 16th. They will reside at Bryn Mawr.

Deaths.—Dr. James D. Tantum, aged 48 years, of Trenton, N. J., died in the German Hospital on December 18th. Dr. Tantum had retired from active practice several years previously.

Northern Medical Association.—The following was the programme of the Northern Medical Association for December 23rd: The Value and Methods of Studying Bloodpressure in the Human Being, by Dr. H. C. Wood, Jr.

Scientific Society Meetings for the Week Ending January 7, 1905.—Monday, January 2nd, Philadelphia Academy of Surgery; Biological and Microscopical Section, Academy of Natural Sciences. Tuesday, January 3rd, Academy of Natural Sciences. Wednesday, January 4th, College of Physicians. Thursday, January 5th, Obstetrical Society; Medical Society of the Southern Dispensary. Friday, January 6th, American Philosophical Society.

Malpractitioners Arrested.—Two arrests were made on December 23rd at the initiative of the coroner for alleged malpractice. The principal offender is a negro man, who lives in the suburbs and who made visits to the city to perform operations when summoned by his confederates. Albert M. Hollis, known as Dr. Hollis, was held in $1,000 bail by a magistrate, charged with administering medicine to a young woman with unlawful intent.

Christmas in the Philadelphia Hospitals.—Christmas was celebrated in all the hospitals and charitable homes in Philadelphia. The wards in the hospitals were decorated, gifts distributed, and bountiful dinners served to such patients as could with safety partake of them. Among the hospitals in which such Christmas cheer was provided for the sick may be mentioned the University, Jefferson, Medico-Chirurgical, Presbyterian, German, Episcopal, Methodist, St. Agnes's, St. Joseph's, St. Mary's, and the Philadelphia General.

Philadelphia Neurological Society.—The following was the programme of the Philadelphia Neurological Society at its meeting held December 27th: Dr. Ralph Pemberton exhibited for Dr. Charles K. Mills a case of Rhizomelic Spondylosis; Dr. S. D. Ludlum, a case of Spastic Ataxic Paraplegia Developing After Child Birth; Dr. J. W. McConnell, a case of Senile Neurasthenia and a case of Hemianæsthesia, Hemiataxia, Hemiasteriognosis, Hemiathetosis, and Hemianopsia Due to a Sudden Cerebral Lesion; Dr. C. S. Potts, a case of Traumatic Cervical Hæmatomyelia; Dr. C. D. Camp, The Pathology of Tabes and Fibrous Nodules of the Pia; Dr. A. R. Allen, Annular Degenerations of the Spinal Cord; Dr. T. H. Weisenburg, Pseudobulbar Palsy.

Appointments in Department of Public Health and Charities.—The following appointments in the Department of Public Health and Charities, Bureau of Health, were sent to council for confirmation by the mayor on December 15th: Dr. Mary E. Pennington, to be second assistant bacteriologist; Dr. Robert E. Newton, to be third assistant bacteriologist; Dr. Joseph A. McClintock, to be fourth assistant bacteriologist. The following appointments were similarly disposed of in the bureau of charities: William T. Defrates, to be superintendent of the almshouse; Dr. Mihran K. Kassabian, to be director of the Röntgen Laboratory; Dr. Randle C. Rosenberger, to be director of the Pathological, and Bacteriological Laboratory; Miss Marie J. McDonald, to be chief nurse of the Philadelphia General Hospital.

Annual Meeting of the Academy of Natural Sciences.—The ninety-third annual meeting of the Academy of Natural Sciences was held on December 21st. The reports of the various officers show that the collection of books on natural history in the possession of the academy is the largest in the United States, and that the specimens in its museums compare favorably with those in the most important museums in the world. The following officers were elected:

President, Dr. Samuel G. Dixon; vice-presidents, Arthur Erwin Brown, Dr. E. G. Conklin; recording secretary, Dr. Edward J. Nolan; corresponding secretary, Dr. J. Percy Moore; treasurer, George Vaux, Jr.; librarian, Dr. Edward J. Nolan; curators, Arthur Erwin Brown, Dr. Samuel G. Dixon, Dr. Henry A. Pilsbury, William S. Vaux, Jr.; councilors, to serve three years, Dr. Thomas H. Fenton, Edwin S. Dixon, John Cadwalader, William Sellers; committee on accounts, Charles Morris, Samuel N. Rhoads, Dr. C. Newlin Pierce, John G. Rothermel, Howard Crawley; councilor, to serve for unexpired term of two years, Frederick Prime.

Physician to Be Prosecuted for Neglecting to Report a Case of Smallpox.—The Board of Health has ordered the prosecution of Dr. Charles M. Burk, of 2110 Vine Street, for not reporting the case of William McGinty, 2103 Vine Street, as one of smallpox. McGinty lived with his sister, who keeps a dressmaking establishment. When he was taken to the Municipal Hospital the health authorities found considerable difficulty in tracing the gowns that had been sent out from his sister's establishment, and in locating a number of the employees. Dr. Burk claims that he reported the case as soon as he made the diagnosis; but it was shown that he had vaccinated people in the house four days before he made his report. A warrant has been issued for Dr. Burk's arrest, which will be served some time during the week.

The Health of the City.—The following cases of transmissible disease were reported for the week ending December 17th:

	Cases.	Deaths.
Malarial fever	2	0
Typhoid fever	69	9
Scarlet fever	53	2
Chickenpox	104	0
Diphtheria	90	15
Cerebrospinal meningitis	1	0
Measles	9	0
Whooping cough	5	0
Tuberculosis of the lungs	40	72
Pneumonia	66	70
Erysipelas	10	0
Puerperal fever	1	1
Leprosy	1	0

The total death rate for the week was 519, in an estimated population of 1,408,154, corresponding to an annual death rate of 19.16 per 1,000 population. This is an increase of 76 deaths over the week ending December 10th. The increased death rate is due to diseases of the respiratory system principally, in which there was an excess of more than 20 fatalities over last week, as a study of the following table will show:

	Week ending.	
	Dec. 10th.	Dec. 17th.
General diseases:		
Epidemic diseases	32	27
Other general diseases	90	101
Diseases of the nervous system	37	45
Diseases of the circulatory system	60	68
Diseases of the respiratory system	90	113
Diseases of the digestive system	37	42
Diseases of the genitourinary system	41	50
Childbirth	4	2
Diseases of the locomotor system	0	2
Malformation	8	4
Early infancy	18	30
Old age	10	12
Violence	25	21
Ill defined diseases	1	2

There have been the following deaths from other infectious diseases: tuberculosis other than tuberculosis of the lungs, 2; diarrhœa and enteritis under two years, 16. The total infant mortality was 117; under one year, 95; between one and two years, 22. There were 36 still births; 21 males and 15 females. The temperatures were low, ranging from a minimum of 12°, on the eleventh, to a maximum of 36° on the sixteenth. At the same time the humidity has been relatively high, varying from a minimum of 64 to a maximum of 90. During the week there were three snowstorms. There appears to be some connection between the meteorological phenomena and the increased death rate from the respiratory diseases.

GENERAL

Grady Hospital, Atlanta.—The trustees of the Grady Hospital, Atlanta, Ga., held a meeting on December 10th and elected a successor to Dr. Hunter P. Cooper on the medical staff. Dr. James N. Ellis was declared elected. Dr. Ellis, who has offices in Temple Court, and who resides at 19 Forrest Avenue, was absent from the city and was not notified of his election until the following day.

Virginia State Medical Board.—Governor Montague, of Virginia, on December 1st, appointed the following State medical board: Dr. Rawley W. Martin, of Lynchburg; Dr. Lewis E. Harvey, of Danville; Dr. J. H. Neff, of Harrisonburg; Dr. V. S. Culpeper, of Portsmouth; Dr. W. W. Chaffin, of Pulaski City; Dr. Paulus A. Irving, and Dr. Landon B. Edwards, of Richmond.

Delegates to Pan-American Congress Sail.—Twenty-two physicians left Baltimore on December 27th on board the steamship *Athos*, of the Di Giorgio Steamship Line, bound for Panama. They are delegates from the American Medical Association to the fourth Pan-American Medical Congress, which will meet in Panama on or about January 3, 1905. Among the delegates who sailed are Ramon Guiteras, R. C. Tillinghast, and W. S. Bryant, New York city, and Irving Lee Walker, Central Islip, L. I. The party from Baltimore expects to reach Colon on January 3rd, where they will board a special train for Panama, which Government has appropriated $25,000 for the entertainment of the visitors. The party will be taken back to Colon, and from Colon will sail on January 7th for Havana, where they will be the guests of the American Public Health Association, which meets in Havana on January 9th.

Civil Service Examinations for the New York State and County Service.—The New York State Civil Service Commission announces general examinations to be held January 21, 1905, including the following positions: Physicians; physical instructor; trained nurses in State hospitals and institutions; pupil nurse, Erie County Hospital; health officer in village of Rye, Westchester County. Applications for these examinations must be made on or before January 16th. Full particulars of the examination and blank applications may be obtained by addressing the Chief Examiner of the Commission at Albany.

Programme of the Fourteenth Annual Meeting of the Western Surgical and Gynæcological Association, held at Milwaukee, December 28 and 29, 1904:

Kidney Stone, by A. L. Wright, M. D., of Carroll, Ia.; Newer Aids to Diagnosis in Disease of the Urinary Tract, by M. L. Harris, M. D., of Chicago; The Practical Significance of Certain Common Symptoms in the Upper Abdomen, by J. F. Percy, M. D., of Galesburg, Ill.; The Methods of Exploring the Abdomen—and a New One, by A. Hugh Ferguson, M. D., of Chicago; Peritoneal Adhesions; Their Cause and Prevention, by Arthur E. Hertzler, M. D., of Kansas City; Choice of Methods in the Removal of Uterine Fibroids, by Henry T. Byford, M. D., of Chicago; A Study of a Series of Fibroid Tumors of the Uterus, by J. Clarence Webster, M. D., of Chicago; Fibroid Tumors of the Uterus; Their Surgical Treatment, by Franklin H. Martin, M. D., of Chicago; Gunshot Wounds and Their Treatment, by George E. Goodfellow, M. D., of San Francisco; Splenectomy for Splenic Anæmia, by Palmer Findley, M. D., of Chicago; Some Recent Progress in the Surgery of the Large Intestine, by J. E. Summers, Jr., M. D., of Omaha; Moorhof's Bone Plug, by J. E. Moore, M. D., of Minneapolis; Removal of the Gasserian Ganglion in the Treatment of Trifacial Neuralgia, by A. E. Halstead, M. D., of Chicago; Appendicitis in Women, by Archibald MacLaren, M. D., of St. Paul; Diagnosis of Early Tubal Pregnancy, by William E. Ground, M. D., of Superior, Wis.; The Care of the Axilla After Excavations for Malignant or Infective Lesions, by J. B. Murphy, M. D., of Chicago; Gunshot Wounds of the Pancreas, with the Report of a Case, and an Additional Case of Dr. F. Gregory Connell, of Salida, Colo., by William Jepson, M. D., of Sioux City, Ia.; Surgical Diseases of the Pancreas, by D. C. Brockman, M. D., of Ottumwa, Ia.; The Treatment of Tumors and Wounds of the Pancreas, by A. C. Bernays, M. D., of St. Louis; Cysts of the Pancreas, by D. W. Basham, M. D., of Wichita, Kan.; Gastroenterostomy, by C. W. Oviatt, M. D., of Oshkosh, Wis.; The Surgical Consideration of Gastric Dilatation, by A. M. Pond, M. D., of Webster City, Ia.; Report of Case of Gunshot Wound of the Stomach With Recovery, by J. N. Warren, M. D., of Sioux City, Ia.; Treatment of Acute Perforations of the Upper Abdominal Viscera, by Van Buren Knott, M. D., of Sioux City, Ia.; Notes on European Surgery, by A. F. Jonas, M. D., of Omaha; A Consideration of the Present Methods for the Correction of Retrodisplacements of the Uterus, by C. H. Wallace, M. D., of St. Joseph, Mo.; Report of Rare Case of Pneumatocele, by L. L. McArthur, M. D., of Chicago; Treatment of Fracture of the Patella, by C. A. Stewart, M. D., of Duluth, Minn.; The Operative Treatment of Fractures and Sprains, by A. E. Benjamin, M. D., of Minneapolis; Skiagraphy in the Treatment of Fractures, by H. A. Sifton, M. D., of Milwaukee; Fracture of the Tarsal Bones, by D. N. Eisendrath, M. D., of Chicago; The Manufacture and Use of Tin Splints, by Arthur T. Mann, M. D., of Minneapolis; Syncytioma Malignum, by H. C. Crowell, M. D., of Kansas City; Ptosis of the Abdominal and Pelvic Organs, by R. C. Coffey, M. D., of Portland, Ore.; A New Self Retaining Catheter and Vesical Irrigator, by H. G. Wetherill, M. D., of Denver, Colo.; Hospital Organization and Management in Smaller Cities, by D. S. Fairchild, M. D., of Des Moines, Ia.; A New Method of Arthotomy for Old Dislocations of the Shoulder Joint, by E. Wyllys Andrews, M. D., of Chicago; Excision of Elbow Joint for Traumatic and Arthritic Ankylosis, by B. Merrill Ricketts, M. D., of Cincinnati; Compound Traumatic Separation of the Lower Epiphysis of the Femur, by G. G. Cottam, M. D., of Rock Rapids, Ia.; Curettage and Puerperal Sepsis, by C. E. Ruth, M. D., of Keokuk, Ia.; Our Duty to the United States Army and Its Medical Corps, by D. Macrae, Jr., M. D., of Council Bluffs, Ia.; Removal of the Covering of the Ovaries in Ovarian Dysmenorrhœa, by G. G. Eitel, M. D., of Minneapolis; Hysteroplasy—a New Operation for Dysmenorrhœa Due to Anteflexion and Stenosis of the Internal Os, by Channing W. Barrett, M. D., of Chicago; Report of Case of Cæsarean Section and Hysterectomy with Recovery of Mother and Child, by I. B. Perkins, M. D., of Denver; High Frequency Electricity as a Factor in the Treatment of Surgical and Gynæcological Diseases, by E. M. Sala, M. D., of Rock Island, Ill; Operation for Retained Testicle; Aneurysm of the Superior Mesenteric Artery; Operation, by E. M. Sutton, M. D., of Peoria, Ill.; Inflammation and Suppuration of the Frontal Sinuses, by T. E. Potter, M. D., of St. Joseph, Mo.

Health in Michigan During November, 1904.—Reports to the Michigan State Board of Health, by representative physicians in active general practice in different parts of the State, show the diseases which caused the most sickness in Michigan during the month of November (five weeks ending December 3rd), 1904, as follows:

Number of reports received for this month..............357

Diseases arranged in order of greatest prevalence in this month.	Per cent. of reports stating presence of disease. November, 1904.	October, 1904.	Average for November, ten years. 1894-1903.
Rheumatism	56	58	63
Neuralgia	53	51	58
Bronchitis	49	43	55
Amygdalitis	45	37	50
Influenza	36	27	42
Gonorrhœa	34	32	
Syphilis	27	26	
Diarrhœa	23	48	29
Cancer	23	20	
Typhoid fever—enteric	17	21	18
Typhomalaria	6	4	4
Consumption, pulmonary	23	20	23
Inflammation of kidney	18	18	19
Pleuritis	16	10	17
Smallpox	14	11	2
Pneumonia	11	4	16
Scarlet fever	10	10	12
Intermittent fever	8	12	17
Diphtheria	6	4	9
Dysentery	6	13	6
Inflammation of bowels	6	12	8
Erysipelas	6	4	11
Remittent fever	5	7	13
Measles	5	3	4
Puerperal fever	3	2	1
Cholera morbus	3	11	5
Whooping cough	2	3	6
Cholera infantum	2	8	1
Inflammation of brain	2	2	1
Membranous croup	.3	.3	1
Meningitis	.3	1	.6

At the State Capitol for the month of November, 1904, compared with the average for November in the ten years, 1894-1903, tri-daily observations show that the prevailing direction of the wind was northwest instead of southwest, the velocity .4 of a mile per hour less, the average temperature 1.67 degrees higher, the average daily range of temperature 3.4 degrees greater, the average daily range of atmospheric pressure .038 of a degree less, the rainfall 2.4 inches less, the absolute humidity less and the relative humidity less, the day and night much less, and the depth of water in the observation well the same. For the month of November, 1904, compared with the average for November in the ten years, 1894-1903, smallpox, puerperal fever, cholera infantum, and inflammation of the brain were more than usually prevalent, and bronchitis, pneumonia, intermittent fever, diphtheria, erysipelas, remittent fever, cholera morbus, and whooping cough were less than usually prevalent.

THE MOST DANGEROUS COMMUNICABLE DISEASES.

Including reports by regular observers and others, meningitis was reported present in Michigan during the month of November, 1904, at 6 places; whooping cough, at 18 places; measles, at 35 places; pneumonia, at 59 places; diphtheria, at 87 places; smallpox, at 99 places; scarlet fever, at 105 places; typhoid fever, at 161 places; and consumption, at 247 places. Reports from all sources show meningitis present at 1 place more; whooping cough, at 6 places more; measles, at 6 places more; pneumonia, at 30 places more; diphtheria, at 24 places; smallpox, at 20 places; and scarlet fever, at 23 places more; and typhoid fever, at 21 places; and consumption, at 56 places less, in the month of November, 1904, when compared with the preceding month. Henry B. Baker, secretary.

Lansing, Mich., December 8, 1904.

Pith of Current Literature.

SEMAINE MEDICALE.

October 26, 1904.

Semeiological Value of Examination of the Blood in Surgery, By TUFFIER.

1. **Semeiological Value of Examination of the Blood in Surgery.**—Tuffier concludes in respect to the hæmoglobin that when its quantity is very small general anæsthesia should be withheld, and the general condition improved, if possible, before any operation is attempted. The iodophile reaction of the leucocytes usually enables one to decide that suppuration is present. The numeration of the leucocytes facilitates the diagnosis of abscess of the liver, spleen, and brain, also that of perinephritic and periprostatic abscess, and of peritoneal suppuration. In appendicitis it informs one as to the presence of pus, and is a better guide than temperature with reference to the desirability of an operation. In the presence of hyperleucocytosis the diagnosis of intestinal perforation in typhoid fever is possible. In cancerous disease, when fever is absent there may be diminution in the red globules, diminution of the hæmoglobin, and hyperleucocytosis, with polynucleosis. The increase in the number of eosinophiles is a valuable factor in the diagnosis of various skin diseases. In gynæcology the presence of collections of pus may often be determined by an increase in the leucocytes, but this rule is not constant. It must not be forgotten that information derived in this way will not take the place of clinical investigation.

November 2, 1904.

Fevers of Unknown Origin, By BOZZOLO.

Fevers of Unknown Origin.—Bozzolo classifies these various fevers as follows: 1, Those which remain undetermined until an autopsy has been made; 2, those which become slowly localized as ganglionic swellings; 3, ganglionic fevers which with several swellings in the neck are suggestive of tuberculous typhoid; 4, precancerous fevers as in cancer of the liver, and the female genital organs, and in sarcoma of the abdomen; 5, fevers of syphilitic origin not connected with the secondary eruption nor with syphilitic marasmus; 6, fevers of nervous and hysterical origin, common in women, variable in duration and intensity, and in their effect upon nutrition; 7, bacteræmic and septicæmic fevers which may remain latent and without localization; 8, tuberculous typhoid which may persist a long time without localization, a cure finally resulting; 9, the various types and varieties of the so called Malta fever, continued, remittent, and intermittent.

ZENTRALBLATT FUER GYNAEKOLOGIE

November 12, 1904.

1. Lumbar Puncture in Eclampsia, By M. HENKEL.
2. Lumbar Puncture in Eclampsia, By L. KLEINWAECHTER.
3. Two Cæsarean Sections for Eclampsia, By WANNER.
4. Nephrotomy in the Anuria of Eclampsia, By A. SIPPEL.
5. Digital Dilatation of the Cervix, By O. KOPPE.
6. Prophylaxis of Morbidity in the Puerperium, By KROEMER.
7. Subcutaneous Injections of Artificial Serum in Puerperal Infections, By VON JAWORSKI.

1. **Lumbar Puncture in Eclampsia.**—Henkel has been using lumbar puncture in eclamptic cases since 1901. He reports sixteen cases, of which four died, giving the usual mortality of other treatment in eclampsia. In some cases the spinal fluid was small in quantity, in others normal, in others much increased. The author believes that the course of the disease is not at all modified by this treatment.

3. **Cæsarean Section in Eclampsia.**—Wanner reports two very severe cases of eclampsia occurring toward the end of pregnancy in the absence of labor pains. The first patient was operated on by the abdominal route, in the second vaginal Cæsarean section was performed. The first patient died in forty-eight hours, the second recovered. Both children lived.

4. **Nephrotomy for Anuria in Eclampsia.**—Sippel calls attention to a case of severe eclampsia operated by Edebohls (decapsulation of the kidney) on account of a severe attack of eclampsia in a primipara. In coma a forcible delivery was accomplished. The convulsions returned after two days, when the decapsulation of both kidneys was done. The patient recovered. Sippel warns against the generalization of this operation until the exact indications are firmly established.

7. **Artificial Serum in Puerperal Infections.**—Von Jaworski recommends a 0.84 per cent. saline solution, hypodermatically administered, for puerperal sepsis. It is essential that the glands and kidneys be healthful. Small frequent injections once or twice a day of from two and one half to five ounces act better than large infusions.

BERLINER KLINISCHE WOCHENSCHRIFT.

November 21, 1904.

1. Acute Articular Rheumatism in Children, By A. BAGINSKY.
2. The Treatment of Lupus, By DREUW.
3. Physiological and Therapeutical Experiences with Organic Phosphorus, By J. LOEWENHEIM.
4. Rare Forms of Rheumatism, By J. SCHREIBER.

2. **Treatment of Lupus.**—Dreuw recommends freezing the areas of lupus with ethyl chloride and then rubbing the spots energetically with hydrochloric acid supersaturated with free chlorine. This cauterization is followed by granulation and scar formation. The method is simple and cheap, and the cosmetic effects are very good. This method of treatment is especially adapted to the early stages of the disease.

3. **Organic Phosphorus.**—Loewenheim describes phytin as the organic phosphorus reserve of green plants. According to its chemical constitution and in consequence of its presence in plants, it is not only not harmful to them, but stimulates the normal nourishment of the cells. It is a white, tasteless powder, soluble in water, and can be taken for a long time without evil results. In a number of cases in which the author has used it he found an increase in appetite and in weight. He has used it in rickets, anæmia, in some cases of pulmonary tuberculosis, in neurasthenia, and in some cases of sexual weakness on a neurasthenic basis.

4. **Rare Forms of Rheumatism.**—Schreiber includes under rheumatism all diseases which arise through rapid changes of temperature in the anatomical elements of the organs of locomotion, such as the periosteum, the tendons, etc. He considers the best treatment of an acute rheumatism to be active work with the painful muscle groups.

GAZZETTA DEGLI OSPEDALI E DELLE CLINICHE.

November 6, 1904.

1. The Course of Pseudotuberculosis Due to the Injection of a Bacillus Resembling the Tubercle Bacillus in Newborn Guinea Pigs, By Livio Vincenzi.
2. The Relation of Hæmatemesis to Splenic Diseases, By Giacomo Cabibe.
3. Pure Aortic Insufficiency in a Child Ten Years of Age, By Paolo Gatti.
4. The Importance of Ophthalmoscopic Examinations in Fractures of the Skull, By Agostino Carbone.
5. Tumor of the Spleen in Typhoid Fever and in Subacute Malaria, By Tommaso Rodini.
6. Forced Labor in Eclampsia, By Egisto Curti.
7. Injections of Mercurial Salts in Surgical Tuberculosis, By Egisto Curti.
8. The Treatment of Dysentery with Creosote, By Gino Zanardini.

1. **Pseudotuberculosis by Ingestion.**—Vincenzi fed the pseudotubercle bacillus, which he has already described, to guinea pigs and observed the development of pseudotuberculous lesions in the lymphnodes and in the lungs within a short time. The bacillus with which he experimented was the "bacillo opale agliaceo" which he described in 1890 as an organism similar to the pseudotubercle bacilli of Pfeiffer, etc. The experiments were conducted in guinea pigs but a few days old. The bacillus used differs from the true tubercle bacillus on account of certain cultural and biological peculiarities, and yet has very analogous pathological properties. It has in fact a special predilection for the lymphatic system, in which it produces nodules resembling young tubercles. Some of the experiments of the author seem to confirm Behring's theory concerning the mode of infection through the food. While the bacillus in these experiments did not produce any local lesions in the stomach or the intestines, yet it gave rise to tubercles in the lymphnodes and in the lungs.

5. **The Spleen in Typhoid and in Malaria.**—Rodini discusses the differentiation of malaria from typhoid fever, on the basis of the enlargement of the spleen. It seems to be an axiom among many practitioners, he finds, to regard a spleen that is enlarged vertically as an evidence of typhoid, while a spleen that is larger horizontally than normal indicates the presence of malaria. In some clinical treatises, such as those of Eichhorst and Seitz, it is stated that in typhoid fever the spleen enlarges rather backward than forward, and that in malaria the enlargement is temporary, is controlled to a certain extent by quinine, and is intermittent with the fever. The author found, on the contrary, that in malaria the spleen often tends to grow larger backward, especially when there is much gas in the intestines, which prevents its pushing forward. The enlargement becomes intermittent if specific remedies are applied. In typhoid fever, on the other hand, as he has seen in 123 cases, the spleen tends to enlarge in a forward direction, when there is no meteorism. Of course, in these cases the administration of quinine has no effect. The diagnosis between typhoid fever and malaria, therefore, should not be based on the size of the spleen or on the shape of this organ, but on other more trustworthy factors. It is obvious that a wrong diagnosis would be very serious in these cases, as solid food is contraindicated in typhoid fever, while to use the expectant treatment is a grave error in malaria.

RIFORMA MEDICA.

November 16, 1904.

1. Sensory and Trophic Tabes (*To be continued*), By Domenico Pirrone.
2. Contribution to the Study of Tuberculous Cirrhoses, By Vincenzo Giordano.
3. On the Quantitative Estimation of Pleuritic Exudates by Means of the Colorimetric Method of Niclot-Achard, By Orazio Schifone.

2. **Tuberculous Cirrhosis of the Liver.**—Giordano reports a case of cirrhosis of the liver in a tuberculous woman. The case presented the clinical picture of a hypertrophic cirrhosis, and there were no signs in the lungs, except an increased resistance over the right, posteriorly. The patient died after a period during which there was hectic fever resembling that of tuberculosis. On autopsy no lesions were found in the parenchyma of the lungs, but one or two caseous lymph nodes were found in the bronchi, and the pleuræ were adherent over the right lung. The liver, on the other hand, presented a picture of diffuse sclerosis. While the importance and frequency of cirrhosis in tuberculous subjects is well recognized, we do not know whether this cirrhosis is the effect of the invasion of tubercle bacilli, or of the toxines of these germs. In this case there was a tuberculous pleurisy, and a tuberculosis of the bronchial glands, but the liver did not show any tubercles. The liver at first was hypertrophic, but afterwards the hepatic cells died and were replaced by sclerous tissue. The typical form of cirrhosis which occurs in tuberculous subjects is that accompanied by fatty degeneration of the parenchyma and by hypertrophy of the organ. The clinical signs are an enlarged, smooth, and hard liver, a coincident tuberculosis elsewhere, ascites (which, however, may be absent), jaundice, and in some cases the signs of a tuberculous peritonitis. The jaundice, according to Hutinel, is really a subicteric state, which shows that in addition to the cirrhosis there is also a complicating parenchymatous hepatitis. Anatomically the typical cirrhosis of a tuberculous subject shows an enlarged liver, of an intense yellow color, rasping when cut, hard to the touch, with rounded margins and hepatic islands surrounded by bands of yellow connective tissue, while under the microscope we find diffuse fatty degeneration of the parenchyma, together with the formation of new connective tissue, or biliary canaliculi, and of blood vessels.

3. **Method of Estimating the Amount of Pleuritic Fluid.**—Schifone thinks that physical exam-

ination does not offer an accurate method of determining the amount of fluid in a pleuritic exudate, and believes that the colorimetric method devised for the purpose of measuring this amount should be used more extensively. This method was originally proposed by Niclot, but was recently modified by Achard. It is, according to the author, simple in technics and accurate in results, and is the only practical method of measuring the amount of pleuritic effusion with accuracy. The method of Niclot, as modified by Achard, depends upon the comparison of the color of of a methylene blue solution of known dilution with the color of a sample of the exudate mixed with a known amount of methylene blue. Thirty cubic centimetres of the exudate are first removed by means of an aspirating syringe, and, without withdrawing the needle, one c.c. of a 2.5 per cent. solution of methylene blue is injected into the cavity. The patient is then told to change his position from side to side, to lie on his back and then on his chest, in order to mix the methylene blue well with the exudate in the chest. Meanwhile a solution is prepared, consisting of a litre of distilled water and one c.c. of a 2.5 per cent. solution of methylene blue. This solution contains exactly the amount of methylene blue that had been injected into the pleura. After five minutes, thirty c.c. of the colored exudate are withdrawn from the chest, and it is only necessary to compare the colors of these fluids to estimate the amount of exudate in the chest. If the sample is of the same color as the litre of water colored with the solution, then the amount of exudate is exactly one litre. If the sample is darker, then the amount is less, and if it is lighter the amount is greater than one litre. In order to make this comparison more accurate two Petri dishes are filled with four teaspoonfuls each of distilled water. To the first is added a teaspoonful of the methylene blue in the litre of water, and a tablespoonful of the exudate which has not been colored (removed before the injection), while into the second dish is poured a teaspoonful of the colored exudate. Then both dishes contain the same amount of exudate and of water; only the blue varies, and the colors may be compared accurately. Still more accurate results are obtained if the methylene blue is added to a given amount of unstained exudate, from a burette, and the amount needed to color the unstained exudate the same color as the exudate obtained after injection of methylene blue into the chest, will indicate the amount of exudate that had been present in the chest at the time of the injection. The only two conditions which are necessary for the success of this test are, that the fluid be free in the chest and that it be not hæmorrhagic.

November 23, 1904.

1. A Case of Lymphosarcoma of the Mediastinum with a Very Rapid Course, By Martino Signer.
2. Partsch's Method in the Treatment of Maxillary Cysts, By S. Ottaviano.
3. Sensory and Trophic Tabes, By Domenico Pirrone.

1. **Rapid Course in a Case of Mediastinal Lymphsarcoma.**—Signer reports a case of lymphosarcoma of the mediastinum in a boy, fifteen years old, in which the course of the disease was remarkably rapid. Usually these tumors develop insidiously in the course of seven or eight months. In some few reported cases the duration was shorter, and death supervened within seven or eight weeks. The patient in this case was taken, a month before admission, with pains in the limbs, chills, and a pain in the sternal region, especially on drinking fluids or on swallowing food. When he tried to resume his work he lost consciousness. During the following days he suffered from repeated attacks of pain in the neck and the shoulder, and developed a cough which was very persistent and was accompanied by slight mucous expectoration. The diagnosis of pleurisy with effusion was made. The patient could no longer remain in the recumbent position, and was obliged to sit up in bed. When he tried to lie down, he was seized with cough and dyspnœa. He had a slight febrile movement. There were also cyanosis and swelling of the veins of the neck. The patient died within two days after admission. The autopsy showed the presence of a hard, elastic tumor in the mediastinum, adherent to the median line of the sternum, and including the anterior wall of the pericardium. This mass seemed to occupy the entire mediastinum. The pleura contained a small amount of bloody fluid. The lungs were free. On examination the mass was found to be a lymphosarcoma of the mediastinum which was originally derived from the thymus, but involved metastatically the kidneys and the spleen. The fever, according to the author, was due to the rapid development of the toxic substances generated during the growth of the tumor.

ROUSSKY VRATCH.

November 13, 1904.

1. On the Motor Centres of the Cervical Enlargement in Man. (*Apropos* of a Case of Resection), By L. V. Blumenau and E. A. Nilsen.
2. On the Significance of the Dimethylamidobenzaldehyde Reaction as Proposed by Ehrlich, and on Its Relations to the Other Color Reactions of the Urine, By K. Z. Villanene.
3. Comparative Studies on the Heat Exchange in Persons Immersed in Fresh Water, and in Salt Baths of the Strength of from Fifteen to Twenty Per Cent., By A. F. Drzhevetski.
4. On the Question of Dysenteric Diseases in Manchuria (*To be concluded*), By V. G. Korentchevski.
5. On the Question as to the Treatment of Rupture of the Uterus (Five Cases of Rupture of the Womb During Childbirth), By S. A. Nikonoff.

1. **Motor Centres in the Cervical Enlargement.**—Blumenau and Nilsen report the case of a soldier whose arm was amputated at the upper third for tuberculous disease. Four months after the operation the patient died of pulmonary tuberculosis. On staining with Nissl's method it was found that the anterior horns of the spinal cord in the four lower cervical and the upper thoracic segments were atrophied, and that the ganglion cells therein were the seat of chromatolysis. As this had not occurred in the other parts of the cord, the authors attributed these changes to the

operation. The case, therefore, demonstrates the fact that the motor centres for the upper extremity as a whole are situated in the cervical enlargement in man, just as was found in the animal experiments which were made by Parhorn, Goldstein, Marinesco, and others.

2. **Ehrlich's Dimethylamidobenzaldehyde Reaction in the Urine.**—Villanene looked for the reaction in question in 150 cases taken at random from among his clinical material. He also compared it with the other color reactions of the urine. For this purpose he tested fresh urine for albumin, sugar, specific gravity, biliary pigments, urobilin, indican, urorosein, or uroerythrin, and for the reaction of Rosenbach (burgundy red). Ehrlich's reaction was performed as follows: To a small amount of urine in a test tube five or ten drops of a two per cent. solution of dimethylamidobenzaldehyde were added. The solution was made with equal parts of water and concentrated hydrochloric acid. Heated urine gave a much more prompt reaction. A positive Ehrlich reaction was found present in forty-two per cent. of the author's cases. Among these it was especially marked in thirty-five cases, i. e., in 23.3 per cent. He obtained a marked reaction in a few cases of severe typhoid fever at the acme of the disease, in the last stage of tuberculosis of the lungs, in acute influenza pneumonias, in pleuropneumonias, in pleurisies with effusion, independently of the primary causes of these, and in one case of chronic morphinism. Among other cases he found well marked reactions in some instances of aortic aneurysm, in general arteriosclerosis, in heart disease at the period of lowest compensation, in cirrhosis of the liver, and in cancer. A less well marked reaction was obtained in the same classes of disease, but in weaker patients. During convalescence the reaction gradually diminished in intensity, and healthy persons gave a negative result. The urine of diabetic and also of nephritic patients did not in any case give a distinct reaction (unless there was a complicating tuberculosis, etc.). The author, therefore, concluded that the presence of this reaction indicated a pathological condition of some sort, while its absence did not exclude the presence of even severe diseases. No direct connection was found between the new reaction of Ehrlich and the other color reactions of the urine. The diazo reaction did not always coincide with the aldehyde reaction, and vice versa. It was noted, however, that in those cases in which the aldehyde reaction was strongly marked, there was also an increased elimination of indican, and of the other substances which produced the different color reactions in the urine. This was not because these reactions were interdependent with the aldehyde reaction of Ehrlich, but because the latter occurred in diseased conditions in which the other color reactions were also frequently found. The aldehyde reaction has no significance in diagnosis or prognosis and simply tells us that the patient is not normal.

3. **Fresh Water and Salt Water Baths in Reducing Temperature.**—Drzhevetski found that there was practically no difference between fresh water and salt water baths, so far as their influence on the thermal exchange was concerned. He could not find any difference in the increase of temperature after a hot bath or in the decrease after a cold bath, according to the quality of the water, whether fresh or salt; nor was there any appreciable difference between salt water and fresh water baths as regards their influence on the muscular power and on the pulse of the patient. The subjective sensations of the patients in being immersed into the two different kinds of baths, at the same temperature, were not appreciably varied. These results were obtained after accurate observations of patients during sixty-six baths, of which forty-one were in fresh water and the rest in salt water. The observations were made in a specially constructed calorimetre bathtub, invented by Peskoff.

5. **Treatment of Rupture of the Uterus.**—Nikonoff reports five cases of rupture of the womb during childbirth, and with these as texts discusses the treatment of this condition. He found that in addition to the forms of uterine rupture commonly described in the books and in recent literature, there are also cases of rupture in which the uterus is torn away from the anterior fornix, or for that matter, from any of the fornices, the rupture taking place purely as the result of traumatism during delivery. He reports such a case in which the fœtus happened to be an anencephalic monster and in which the midwife had made ineffectual attempts to deliver the shoulders until the uterus ruptured and tore away from the anterior fornix. Then the fœtus was removed with ease. An important practical point in these cases is, that it is not always advisable to remove the fœtus from a ruptured uterus at once, through the natural ways, as the head or shoulders will effectually plug the cervix and prevent the great effusion of blood which otherwise would take place. The author believes that in some cases women perished as the result of hæmorrhage when they might have been saved if no such attempts had been made to remove the fœtus per vaginam. The diagnosis is very difficult in those cases in which the reaction is not acute and the tear takes place slowly. In many cases of this kind internal examinations give little or no information and therefore may well be abstained from, if we fear infection. The prognosis is not absolutely bad and with modern methods the mortality has been brought down to forty or fifty per cent. The treatment consists of laparotomy and the removal of the fœtus through the uterine incision, or else, if this is impossible, the fœtus should be removed through the vagina and the tear sutured from below. Everything should be ready for a major operation. An attempt may be made to remove the fœtus per vaginam, followed by tamponage, suture, or hysterectomy by the vaginal route as circumstances may dictate. In hydrocephalus of the presenting head it is best to perforate first. If the fœtus has, however, passed through the rent into the peritoneal cavity then laparotomy is imperative. In most cases the uterus must be removed as a whole, but in some cases it can be sutured.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

December 24, 1904.

1. Relations of Pathology, By LUDVIG HEKTOEN.
2. The Relation of the Physician to Sanitation; Chairman's Address, By GARDNER T. SWARTS.
3. A Summer's Experience with Infantile Dysentery (*Concluded*), By J. H. MASON KNOX, JR.
4. The Bacillus Dysenteriæ (Shiga) in Its Relation to the Diarrhœal Diseases of Infants. A Clinical Study of Cases, By L. EMMETT HOLT.
5. Some Findings in Summer Diarrhœa of Children, By JOHN C. COOK.
6. The Management of Summer Diarrhœa, By THOMAS S. SOUTHWORTH.
7. Treatment of Aphasia by Training, By CHARLES K. MILLS.
8. The Control of Internal Hæmorrhage by Drugs, By THOMAS LUTHER COLEY.
9. A Study of Apocynum Cannabinum, By HORATIO C. WOOD, JR.
10. Use of Diaphoresis and Diaphoretic Agents in Ophthalmic Therapeutics, By HIRAM WOODS.
11. Diaphoretics and Diaphoresis in Ophthalmic Therapeutics, By T. W. WOODRUFF.
12. The Conservative Management of Lacrymal Obstruction, By S. D. RISLEY.
13. Some Injuries of the Eye in Their Medicolegal Aspect, By JOHN JOHNSON KYLE.
14. Is Bilateral Operation for Cataract Ever Justifiable? And if Not, How Soon After the Operation on the First Eye is it Safe to Extract the Second Cataract? By A. W. CALHOUN.
15. A Note on the Operation of Gastroenterostomy, By B. G. A. MOYNIHAN.

3. See this *Journal*, Vol. LXXX, page 138.

4, 5, and 6. See this *Journal*, Vol. LXXX, page 139.

7. **Treatment of Aphasia.**—Mills gives in detail his method of training aphasics so as to redevelop their power to talk. Several cases are reported which illustrate the author's system and show how much improvement may be reasonably expected. Special attention is given to a consideration of those parts of speech which are most obscured and most difficult to regain.

8. **The Control of Internal Hæmorrhage.**—Coley considers the medicinal treatment of all forms of bleeding, in which the bleeding points are not within reach of direct topical applications. The practical points brought out by his paper are: (1) There are no internal hæmostatics whose value is generally conceded; (2) it is probable that most of the drugs that have been recommended as internal hæmostatics do more harm than good; (3) the author has never seen noteworthy or conclusive results follow the administration of gelatin, calcium chloride, or suprarenal extract; (4) rest and position are probably the most efficient means at our command for favoring the arrest of bleeding.

10. **Diaphoresis in Ophthalmic Therapeutics.**—Woods concludes: "(1) The greatest utility of diaphoretics is in the acute congestive and exudative lesions of the uveal tract. (2) Diaphoretics are useful in retinal detachment produced by exudate from chorioidal vessels during the course of acute chorioidoretinitis. Judging from reported cases, they are also useful in the retinal detachment of high myopia. It is doubtful if restoration of function in the detached retina is usual or permanent. (3) Diaphoretics are useful in alcohol-tobacco amblyopia and probably in other forms of toxic blindness. (4) Diaphoretics influence to a slight extent only, if at all, lesions of the cornea and sclera. (5) Diaphoretics are useless in atrophic and cicatricial lesions."

14. **Cataract.**—Calhoun answers his questions thus: (1) He himself would not submit to a double cataract operation. On others he would perform the operation but would not recommend it. (2) While special circumstances should always guide us in choosing the time for the second operation, should it be demanded, yet if it can be arranged the author believes it is best to wait for at least six or eight weeks before operating on the second eye.

15. **Gastroenterostomy.**—Moynihan describes at length his latest method of performing gastroenterostomy. He unites the stomach and bowel by a double line of continuous sutures. The special features of his operation are two: (1) He excises an elliptical piece of the stomach mucous membrane; (2) he unites the jejunum so high up that there is no loop. Hence there can be no vicious circle. There is therefore no need of an enteroenterostomy.

BOSTON MEDICAL AND SURGICAL JOURNAL.

December 22, 1904.

1. Two Cases of Chronic Pemphigus of the Mouth, By JOHN W. FARLOW.
2. Leprosy, By THEOBALD SMITH.
3. Chronic Gastric Ulcers. Hour Glass Deformity of the Stomach. Report of a Case Successfully Operated Upon, By CHARLES L. SCUDDER.
4. The Decrease in the Death Rate of Consumption, By LESTER C. MILLER.
5. Pulmonary Congestion as a Cause of Sudden Death, By W. W. MINER.

1. **Pemphigus.**—Farlow reports his two cases in considerable detail. The balance of his paper consists of abstracts of about a dozen other cases that have been reported and of quotations from the writings of Brocq, Thost, Chiari, and others.

3. **Hour Glass Stomach.**—Scudder's case was one of hour glass stomach with, in addition, stenosis of the pylorus. A gastrogastrostomy and a gastroduodenostomy were followed by recovery and complete relief from symptoms. The author discusses the ætiology, symptomatology, and diagnosis of the condition. The operations proposed by Finney and Wölfler for the relief of the condition are briefly described and illustrated. The author insists on the importance of attempting to render the nose, mouth, and stomach as nearly aseptic as possible before subjecting the patient to operation.

4. **Consumption.**—Miller shows that the death rate from consumption in Massachusetts has fallen from thirty-five per ten thousand population in 1866 to eighteen per ten thousand in 1900. Statistics of other localities show similar results. The author concludes: (1) Statistics of tuberculosis show conclusively a marked decrease in the death

rate during the last twenty years. For the countries whose statistics were available, it is not too much to expect that tuberculosis will die out in this century. (2) The most careful investigators are agreed that tuberculosis is directly communicable from one person to another. They consider the dried sputum a source of danger, but the spray from a coughing, sneezing patient in the last stages of consumption they consider a much great source of danger. They consider a hospital for the consumptive poor when in the last stage to be a necessity if we are to prevent the spread of the disease most effectively. (3) With proper precautions the danger of infection from a consumptive may be reduced to almost nothing.

5. **Pulmonary Congestion.** — Miner reports three cases of death due to simple acute pulmonary congestion. None of the patients was ill for more than a few hours before expiring. Death from such a cause is considered infrequent in human beings and Osler, while stating that such cases have been reported, disclaims any personal knowledge of the condition. The author quotes extensively from Robertson's *A Textbook of the Practice of Equine Medicine,* in order to show that horses not infrequently succumb to the disease.

MEDICAL RECORD.

December 24, 1904.

1. The Antitoxine Treatment of Tertian Malarial Infections, By Joseph Herbert Ford.
2. Remarks on Melancholia, By Joseph Collins.
3. Report of a Case of Primary Lupus Vulgaris of the Oropharynx and Nasopharynx Treated by X Rays, By H. S. Birkett.
4. Infant Feeding, By M. J. Synnott.
5. Paraphimosis in a Young Girl, By M. I. Beeman.

1. **Malaria Antitoxine.**—Ford reports a number of experiments he has conducted for the purpose of obtaining if possible an antitoxine for tertian malarial fever. He injected a number of rabbits with human blood infected with the tertian parasite. He then injected into patients suffering with tertian malarial fever serum from the inoculated rabbits and, since this produced little if any result, he injected the desiccated blood clot. The results which followed this last procedure promise well. Nine patients in all were treated. Five recovered; one was temporarily improved; one developed an abscess; and two were apparently unaffected. The author concludes that the red cells of the inoculated rabbits probably contain some substance having antitoxic properties.

2. **Melancholia.**—Collins holds that there is such a disease as simple melancholia. He means by this a melancholia which is not a constituent of other disease, physical or mental. A number of cases of simple melancholia are reported. Clinically the conditions must be distinguished from manic depressive insanity and involutional melancholia. The distinction is important from the standpoint of prognosis, since that of simple melancholia is almost uniformly favorable.

3. **Lupus.**—Birkett says that the rarity of the condition he reports warrants putting the case on record. The x ray treatment produced a complete healing of the lesions. For about eight months the patient continued in good condition without treatment. About this time there was recurrence in the nose. The light treatment was resumed. The case is still under treatment.

5. **Paraphimosis.**—Beeman reports the case of a girl aged thirteen years, who, while tickling her clitoris with a wisp of hair, lassoed the organ in such a way as to produce strangulation.

MEDICAL NEWS.

December 24, 1904.

1. The Alleged Use of Dum-Dum Bullets in the Japanese-Russian War, By George Ryerson Fowler.
2. Renal Hæmaturia of Unexplained Origin. Report of a Case with Cessation After Nephrotomy, By Benjamin R. Schenck.
3. The President's Inaugural Address, By Henry S. Stearns.
4. Hysterectomy and the General Health, By Eugene Coleman Savidge.
5. An Analysis of Twenty-five Cases of Strangulated Hernia Treated by Operation, By George Tully Vaughan.
6. The Significance of Pus in the Nose, with Special Reference to the Affections of the Accessory Sinuses and Their Proper Treatment, By George L. Richards.

1. **Dum-Dum Bullet Wounds.**—Fowler studies a number of photographs of bullet wounds received by Japanese soldiers at Liao-Yang. It has been alleged that these wounds were made by dum-dum bullets. Reproductions of the photographs in question are given. Looking at all the evidence from the point of view of the disinterested surgeon the author sums up his conclusions as follows: "In view of all the circumstances, it would seem as if the evidence presented in the photographs would scarcely justify the accusation that the Russians, in spite of the sentiment throughout the civilized world against the use of dum-dum bullets, and the declaration that their use was contrary to international rights and humanity by The Hague conference of 1899, had resorted to these forbidden projectiles."

2. **Renal Hæmaturia.**—Schenck reports a case of idiopathic (?) renal hæmaturia. At operation a piece of kidney tissue was removed and subsequently examined microscopically. No explanation for the hæmaturia was discovered. The author has searched the literature for similar cases. Only one other has been found. It therefore would seem wiser to put such cases aside for the present as inexplicable rather than to assert that it is possible for bleeding to occur from an anatomically sound kidney.

4. **Hysterectomy.**—Savidge devotes his paper to considering whether "debatable hysterectomy" is ever justifiable. By debatable hysterectomy the author means a panhysterectomy on patients who might be restored to more or less comfort by less radical operations (i. e., by leaving parts of the ovaries behind). Hospital patients are not representative of the American woman and hospital results are not to the point. The American woman is so highly organized nervously, the author holds, that in her case "debatable" hysterectomy is never justifiable.

AMERICAN MEDICINE.

December 24, 1904.

1. Röntgen Rays in the Treament of Leucæmia: A Study of Reported Cases, By George Dock.
2. Two Cases of Bothriocephalus Infection, One of Them Showing Profound Anæmia, By David L. Edsall.
3. The Military Importance of Mild Typhoid Infections, Such as Mountain Fever, By Major Charles E. Woodruff.
4. The Problem of the Prevention of Measles and Whooping Cough, By Charles S. Caverly.
5. The Pitch of the Normal Pulmonary Valve Sound, and the Practical Significance of Its Changes in Acute Lobar Pneumonia and in Emphysema of the Lungs, By Howard S. Anders.
6. An Unusual Case of Addison's Disease, By H. B. Whitney.
7. The Compression Cylinder in Skiagraphy of Calculi, By Henry Hulst.

1. **Leucæmia.**—Dock summarizes his conclusions thus: Under treatment with Röntgen rays some cases of leucæmia undergo marked change for the better. The leucocytes fall to normal numbers and sometimes show no more pathological cells, the red blood corpuscles improve, the enlarged spleen and lymphatic glands resume normal proportions, the general health seems restored. In some cases the effects are imperfect. In no case has observation been carried out long enough to speak of cure. In several cases death has occurred while the symptoms seemed to indicate improvement. The mode of action of the Röntgen rays is not known. It probably consists in affecting the tissues that produce the pathological leucocytes, either directly or more probably through the production or setting free of substances that affect cell formation, or degeneration, or chemotaxis, or all of these processes; but further investigation is necessary. At present the improvement must be considered functional and not affecting the original cause, nor in a permanent way the morbid histology of the disease. The improvement of the red blood cells may be due to general stimulation of nutrition, in which suggestion may have a part, or by diminution of lymphoid or myeloid tissue, and thus permitting development of red cells, as suggested by Ahrens. Though the change seems a functional one, it is possible that treatment in very early stages may be more effective than it has hitherto been. Röntgen ray treatment of leucæmia is dangerous on account of the usual risk of dermatitis and burns, but probably also on account of toxic processes as yet impossible to explain. No stronger claims can be made for it than can be made for arsenic and certain sera and bacterial toxic substances, but it may prove more certain in its action than arsenic, and can be more readily applied in practice than the injection methods.

2. **Bothriocephalus.**—Edsall has collected, including his own, twenty-two cases of bothriocephalus infection observed in this country. All these patients acquired their infection abroad. One of the author's patients exhibited the following blood count: hæmoglobin, 15 per cent.; red cells, 662.000; white cells, 3,200. The man nearly died. The following points are emphasized: (1) Bothriocephalus infection is probably not infrequent in this country among Swedes, Russians, and Finns. (2) Segments of the parasite are not readily found in the stools. The diagnosis must rest on the finding of the eggs, which are usually present in large numbers. (3) The extreme anæmia, so often observed, is probably not due to intestinal disturbance itself nor to blood sucking on the part of the parasite. The most satisfactory explanation of the anæmia is that the parasite itself becomes sick or dies, and that the products of its disordered health or of its putrefaction are absorbed and produce hæmolysis. In cases showing extreme anæmia anthelmintics must be exhibited with care, since they at times give rise to very serious symptoms.

3. **Mild Typhoid.**—Woodruff calls attention to the wholesale destruction of life that occurred during the late war in consequence of the inability of the doctors in the field to recognize mild typhoid as typhoid. A future calamity is not improbably preparing in the West, where a surgeon general of one of the States clings to the name mountain fever for a disease which gives a positive Widal reaction in one third of its cases and otherwise runs the course of an ordinary mild typhoid. The author lays stress on the desirability of an army in the field getting rid of its sick as soon as possible. Field hospitals should be looked upon merely as collecting depots, from which the disabled should be sent on to the base hospitals with as little delay as possible.

4. **Measles and Whooping Cough.**—Caverly holds that even among physicians the fallacious belief obtains that, since measles and whooping cough are not dangerous diseases and since sooner or later every one will acquire them, it is useless to take any prophylactic measures. As a matter of fact, the mortality of each of these diseases is greater than that of scarlet fever. It is time that the profession should educate itself as well as the public with regard to these matters, for until more enlightenment exists rational prophylaxis will present unsurmountable difficulties.

LANCET.

December 10, 1904.

1. Abdominal Pregnancy in Women, Cats, Dogs, and Rabbits. (*Purvis Oration*), By J. Bland-Sutton.
2. A Case of Peripheral Nerve Intoxication, By H. Waldo.
3. Diseases of the Nervous System Sometimes Regarded as Functional, with Particular Reference to Diabetes, By W. H. Dickinson.
4. Some Unusual Effects of Movable Kidney, By C. M. Moullin.
5. Ankylostomiasis in Westphalia, Hungary, and Cornwall, By T. Oliver.
6. A Case of Extradural Abscess Complicating Acute Middle Ear Catarrh Without Perforation of the Membrana Tympani; Operation; Recovery, By R. G. Henderson.
7. Note on Mercurial Injections in Nervous Diseases of Syphilitic Origin, By M. Faure.

8. A Curious Case of General Tuberculosis in Which a Complete Cast of the Stomach Was Vomited, By E. Swales.
9. Morbilli Sine Morbillis: a Case with Commentary, By J. D. Rolleston.
10. The Evolution of Man's Diet. IX, By H. Campbell.

1. **Abdominal Pregnancy.**—Bland-Sutton states that in spite of our increased knowledge of the later stages of extrauterine gestation, there still persists a belief in the existence of a primary abdominal pregnancy. By this is meant that an oösperm (fertilized ovum) may escape from the Falloppian tube and engraft itself on the omentum, intestines, or other abdominal organ, and develop into a fœtus. The author has studied the occurrence of abdominal pregnancy in cats, dogs, and rabbits, as well as in women, and concludes that primary abdominal pregnancy does not exist. The fœtus reaches the abdominal cavity by slowly expanding and eroding the tubal wall as it grows, until the amniotic sac emerges into the general peritoneal cavity. In other cases the fœtus is extruded through an unclosed cœlomic ostium into the abdomen.

5. **Ankylostomiasis.**—Oliver studied ankylostomasis as it occurs in the coal fields of Westphalia, Hungary, and Cornwall. The disease is always introduced into a district by an infected miner defæcating in a mine, the temperature of which is above 65° F., and in which there is considerable moisture. In these circumstances the ova find a favorable medium for becoming larvæ. Occasionally through eating with unwashed hands the larvæ gain entrance into the alimentary canal of man and there develop into mature worms. But they also gain entrance to the body through the skin. The disease develops very insidiously, so that infected men may work in a mine for several years before it becomes infected, and then all at once the disease breaks out in epidemic form. The great coal fields in the north of England are not affected as far as is known. No diagnosis of miner's worm disease can be made short of finding on microscopical examination the ova in the fæces. Knowledge of and familiarity with intestinal parasites are required in order to differentiate between the various forms of ova. The blood of an infected individual usually shows an increase of eosinophile corpuscles.

7. **Mercury in Syphilitic Nervous Diseases.**—Faure thinks that injections of soluble mercurial salts, given either every day or three times a week, are the most recommendable form of treatment in cases of nervous disease of syphilitic origin, for the amounts administered can be determined with more precision than by other methods. Pills produce intestinal troubles, and inunctions are inexact as to quantity. The giving of the same mercurial salt to all patients suffering from nervous diseases should be avoided. Individual idiosyncrasies with respect to toleration should be ascertained. Benzoate, biniodide, and perchloride of mercury agree well in ordinary doses, while cacodylate, hermophenyl, and other organic compounds agree even better, but seem to be less active in equivalent doses and may be reserved for delicate cases. Patients who do not derive any benefit from a given preparation or from small doses have improved under the use of another preparation or of larger doses. The converse also holds that patients who have become worse on one preparation or large doses may improve on another or on smaller doses. In young patients in whom the lesion is recent, treatment may be pushed as in any other syphilitic manifestation. But in middle aged patients with disseminated lesions, treatment should be begun carefully and closely watched. In old people the state of the kidneys must be kept under close observation. All injections should be intramuscular; there is little or no pain or induration. Inject slowly and follow with gentle massage. A centigramme of mercury per day is the average dose. A series of injections varies from 6 to 20 administrations. There is then a pause of equal duration, and a new series of injections is begun. An intensive treatment is not necessarily an heroic treatment, for intensity may be obtained insidiously by very prolonged administration and the use of average doses frequently repeated. It is necessary to give the patient all the mercury that is required for the cure of the disease without giving him enough to produce toxic symptoms.

8. **Cast of the Stomach.**—Swales reports the case of a male epileptic imbecile, aged sixteen years, who died of general miliary tuberculosis. Two days before death he vomited a complete cast of the stomach, the cast being composed of curdled milk.

9. **Measles Without Eruption.**—Rolleston reports the case of a girl aged five years, in which a diagnosis of measles was made, although there was no measles eruption. The diagnosis was based on the occurrence of several other cases in the same ward and the presence of catarrhal symptoms, pyrexia, Koplik's spots, and the prodromal erythematous and urticarial eruptions. The case was at first taken for one of scarlet fever, and the correct diagnosis only made when Koplik's spots were observed. The child had had a previous attack of measles. Of all the acute exanthemata measles least frequently assumes anomalous forms. But the possibility of a non-eruptive measles under the name of morbilli sine morbillis or rubeola sine exanthemati has been admitted by the majority of writers.

BRITISH MEDICAL JOURNAL.

December 10, 1904.

1. A Condition of the Lower Limbs Often Mistaken for Phlebitis, By Sir W. Bennett.
2. The Cerebrospinal Fluid in Relation to Disease of the Nervous System, By F. W. Mott.
3. Seven Cases of Thoracoplasty Performed for the Relief of Chronic Empyema, By H. A. Ballance.
4. Hydrocephalic Fœtus Delivered by Spinal Tapping, By J. W. Ballantyne.
5. The Vomiting of Pregnancy, By J. M. H. Martin.
6. Suggestion for a Cubic Centimetre Measure for Patient's Use, By J. T. Cash.

1. **Pseudophlebitis.**—Bennett calls attention to the occurrence of a condition of the lower limbs which is often mistaken for phlebitis. There is rapidly oncoming pain, somewhat diffusely inclined, but limited to certain areas, increased upon slight pressure, and completely relieved on deep

pressure. There is some swelling of the limb of the nature of a general engorgement: there is no œdema, and hence no "pitting": it is not affected by change of posture. The pain is much influenced by heat or cold—sometimes one, sometimes the other. The patients as a rule are not of the neurotic type, but rather the reverse. The swelling, when not involving the whole limb, is fairly limited to the distribution of the internal and middle cutaneous, the saphenal plexus, the external cutaneous, and the musculocutaneous nerves. When the whole limb is swollen the general normal contour is preserved. In most cases bruising follows deep pressure. The reflexes are unaltered. The cause is not known: it may possibly be due to some vasomotor disturbance. As opposed to phlebitis, rest has no beneficial effect in these cases. Recovery invariably occurs spontaneously, soon or late, but it may be hastened by massage, electricity, and passive movement. The massage should be thorough and not too gentle, the electricity the high frequency current, and the passive movement general, with special movements identical with those that cause pain when made voluntarily.

2. **Cerebrospinal Fluid.**—Mott tells us that normal cerebrospinal fluid is clear, has a specific gravity of 1.006, is slightly alkaline, contains no corpuscular elements, no ferments, and but traces of albumin. The principal constituent is sodium chloride. Dextrose and urea are present in traces, and may be increased in diabetes and uræmia. The average amount is 120 to 150 c.c., varying in amount inversely as the volume of the brain. The proteid present is a globulin. It is not a simple exudation, but a true secretion, its source being, according to most authorities, the chorioid plexus, The fluid is continually secreted, and in cases of fractures of the base of the skull it may be formed in large quantities. The fluid under normal conditions escapes into the longitudinal sinus. The pressure on the whole cerebrospinal axis is uniformly maintained. The products of brain activity are probably neutralized and removed by the cerebrospinal fluid. Increased intracranial pressure from interference with escape of the fluid from its source in the lateral ventricles causes vomiting, headache, optic neuritis, tremors, fits, and drowsy stupor. In disease abnormal chemical changes may take place. Dextrose is increased in diabetes, urea in uræmia, and the chlorides in pneumonia. As a rule the fluid is not bile stained in jaundice. Cholin, a product of myelin degeneration of the nervous system, can be detected chemically and physiologically, in cases where there is active degeneration of the nervous system. Pure cholin is a more powerful poison than is generally believed. Leucocytosis of the cerebropsinal fluid is one of the earliest signs of organic disease of the nervous system: the acute diseases are associated with polynuclears, the chronic with lymphocytes. Red corpuscles are not found, except in cases of hæmorrhage. Microorganisms are present only under exceptional circumstances. But in cerebrospinal meningitis the diplococcus intracellularis of Weichselbaum is constantly present, usually in the protoplasm of the polynuclear leucocytes, never in the nucleus. Occasionally there is a mixed infection. Taken together with Kernig's sign and a slow pulse, the presence of the meningococcus is pathognomonic. Infection is supposed to proceed from the nose. In tuberculous meningitis also the tubercle bacilli are usually present in the cerebrospinal fluid. In sleeping sickness the fluid contains trypanosomes, but the author is not yet convinced that the latter bears any causal relation to the former. There is a marked meningocephalomyelitis and lymphocytosis, to which the characteristic symptoms of the disease are undoubtedly due. It may be that a plasmodial or transitional form of the parasite may exist in the cerebrospinal axis, which may develop into trypanosomes in the cerebrospinal fluid. But the full grown parasites do not penetrate from without inward. General paralysis of the insane also shows chronic meningoencephalitis and lymphocytosis of the cerebrospinal axis and fluid.

3. **Thoracoplasty.**—Ballance reports seven cases of thoracoplasty performed for the relief of chronic empyema. In order to obliterate the cavity, a flap of skin and muscle commensurate with the size of the cavity is raised, and the ribs, soft parts, and parietal pleura excised in one piece by means of strong scissors. The visceral pleura is then lightly curetted, the flaps allowed to fall upon it, and the wound closed. Of the author's seven cases two died, one from cerebral abscess, the other being a case of pyopneumothorax. As a rule it is not advisable to perform this major operation until six months after the empyema has been drained, in order to allow retraction of the chest to advance as far as possible. Cases with hectic fever or lardaceous disease should not be operated on, nor should there be any active tubercle present. In extensive cases the operation should always be performed in stages.

5. **Vomiting of Pregnancy.**—Martin's conclusions are as follows: 1. There is simple nausea with or without actual emesis of physiological and reflex origin, a symptom only due to hyperæmia, the developing uterus vessels, and nerves in a confined cavity. 2. Malposition of the uterus, if the cause of so many troubles in ordinary conditions of health, must be a graver trouble in the pregnant woman, and thus increases the vomiting of pregnancy and consequent malnutrition and emaciation. 3. In the absence of uterine troubles and organic disease, hysteria plays an important rôle and usually defies all therapeutical remedies. If operation should be deemed necessary it should be carried out under thoroughly antiseptic conditions and anæsthesia. 4. It is probable in pregnancy, with its increased arterial tension, and where lung and cardiac complications exist, gastric irritation may be set up and continued in consequence of the special toxæmia which at present is only suspected. 5. The better attention to health and the greater inclination to athletic exercises and hygienic surroundings of the girls of the present day may naturally come to counteract the artificial existence which has for so many years existed in the childbearing population.

Letters to the Editor.

SANATORIA FOR CONSUMPTIVES.

CHICO SPRINGS, N. M., *December* 16, 1904.

To the Editor,

Sir: In answer to Dr. Klotz's letter in the *Journal* of December 10th, I would say that there are many well protected places in northern New Mexico that have no sand storms, such a place as Chico Springs. I cannot see any objection to the writing room being next to the bath and dressing rooms, provided all are fitted with good, sanitary plumbing. Many of our best hotels have bedrooms with bath and toilet attached, separated from each other only by an archway. There are many different water heaters on the market, made for coal, wood, gas, and gasoline, and it ought not to be difficult to secure one that would answer all purposes. My own preference is for the gasoline heater. It is true that much of the water in the West is alkaline, but in northern New Mexico the water, as a rule, is free from alkali, and, moreover, there is an abundant supply. It would be necessary in all cases to have one main building to contain the dining room, laundry, kitchen, recreation room, and office. It is better to be connected with the nearest railroad town by telephone rather than by telegraph. The sanatorium should raise its own cattle, sheep, pigs, and poultry; the latter two can be fed largely with refuse from the kitchen. The Raton Range contains vast beds of coal which are being worked in many places. The price of coal varies at the mine from one to two dollars per ton. Wood is also plentiful throughout this region. I have by experience found that the best way of heating the tents and tent cottages is by means of small air-tight wood stoves. These will heat a tent in five minutes, and when turned off will hold a fire a considerable length of time. Ice can be obtained nearly every winter, although some winters it is necessary to cut it quite thin. It is best in all cases to have a reservoir, no matter whether the water supply is from a spring, well, or stream. This insures a good supply in case of fire or other emergencies. The water supply must be abundant, as, besides that used for bathing purposes, etc., it is necessary to have enough with which to irrigate a good-sized garden. This is very essential, as vegetables are scarce in this region and it is hard to get them fresh. At the sanatorium here we have an artificial lake built of stone and cement, which we use as a reservoir, and from which we irrigate the garden. It also insures our having a good supply of ice, as it freezes over quicker than natural lakes.

H. BOYD MASTEN.

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Philadelphia County Medical Society.—The following was the programme of the meeting of the Philadelphia County Medical Society for December 28th: Food Preservatives and Food Adulteration, by H. W. Wiley, chief of bureau of chemistry, United States Department of Agriculture; Defects in Pennsylvania Food Legislation, by William W. Smithers, of the Philadelphia Bar; The Valuation of Evidence as to the Pharmacological Action of Food Preservatives.

Proceedings of Societies.

INTERNATIONAL CONGRESS OF ARTS AND SCIENCE.

St. Louis, September 21, 1904.

Section in Pædiatrics.

Chairman, Dr. THOMAS M. ROTCH, of Boston.

The History of Pædiatrics and Its Relations to Other Specialties, Sciences, and Arts.—Dr. ABRAHAM JACOBI, of New York, in a paper with this title, said that more than 7,000 monographs had been published before 1849 on the diseases of children, two of the earlier ones having been published in the fifteenth century. In the United States pædiatrics was at first taught by the professor of obstetrics and diseases of women and children. In 1860 the New York Medical College created a special clinic for the diseases of the young. In the English Colonies of America, in 1677-'8, was printed a treatise, medical and in part pædiatric, on smallpox and measles, by the Reverend Thomas Thacher. About the time pædiatrics was recognized by the New York Medical College Europe furnished a brilliant literature on the same subject. Interest in pædiatrics grew in proportion to the researches and wants of the profession. The collective and periodical literature of pædiatrics began in the eighteenth century. Pædiatric journals had continued to multiply, the United States now having two, France three, Germany five, Italy two, and Spain one, their existence being due to the conviction that there was no greater need than that of the distribution of knowledge of the prevention and cure of diseases of the young. Pædiatric societies had increased at the same rate. In 1769 Dr. G. Armstrong established the first institution for the care of sick children. In 1802 the French Republic established the largest child's hospital in Europe, the Hôpital des Enfants Malades. Since that time hospitals had multiplied throughout the civilized world. Infancy and childhood did not begin with the day of birth. From conception to the termination of fœtal life the evolution was gradual. Nowhere were the laws of heredity more perceptible than in the structure and nature of the child. An angeioneurosis had been traced through six generations. Heredity need not show itself in the production of a fully developed disease. It might show itself normally in resemblances, total or partial, of the body or some one or more of the external or internal organs, and in that way might affect the nervous, muscular, osseous, or other tissues. Thus dystrophies in different forms, obesity, hyperplasia, or atrophy, might be directly inherited, or a disposition to degeneration only might be transmitted. Hereditary degeneracy was often caused by social influences. Certain professions enforced complete or approximate celibacy with the same result. The nation with a standing army of millions of men was threatened with a degenerated offspring, for they not only kept the strongest men from timely marriages, but increased prostitution and venereal diseases with their dire consequences. Wars led to the same result, for hundreds of thousands of sound men were slain or crippled or demoralized, while those unfit for physical exertion remained behind to procreate an inferior race. Many diseased conditions could not be thoroughly understood unless studied in the evolving being. Lymphoma, sarcoma, and carcinoma had been observed at birth or shortly after, tending to confirm Cohnheim's theory that many owed their origin to the persistence of embryonic cells in an abnormal location. In the relation of pædiatrics to obstetrics, even to-day three per cent. of mature living fœtuses were not born into postnatal life, and to bring the mortality so low had required an increased knowledge of obstetrics. A great many diseased conditions encountered in the child only were considered, and others most frequent in children. For instance, ear specialists had recognized the fact that otology was mostly a specialty of the young. Not to the same, but to a great extent, pædiatrics and ophthalmology had joined hands, and the connection between pædology and dermatology was more than skin deep. The relations of pædiatrics with forensic medicine were very close. Nothing could better demonstrate that than the immense literature on infanticide in every language. A question that concerned the practical statesman, the philanthropist, and the pædiatrist was that of the excessive mortality of the young. Among the causes were poverty and illness of parents, the large number of illegitimate births, artificial feeding, ignorance of parents in regard to proper food and hygiene, exposure, absence of medical aid, carelessness and general neglect, and infanticide. If anybody had doubts as to the relationship of sciences and arts, he would still be convinced of the cooperation of ignorance, indolence, viciousness, and death, and shocked by the shortcomings of human society. Much of the mortality was attributable to faulty diet. In Berlin it had been found that the mortality among babies fed on cow's milk was six times as great as among breast fed infants. Cow's milk casein and cow's milk fat could not be changed into woman's casein and fat; chemistry was not physiology, the live stomach was not a dead laboratory bottle, the warm human bosom and the nursing flask were not identical, and cow's milk was not human milk, because it carried the trade mark "certified" or "modified." But willing mothers did not always have milk, and a healthier, stronger race was required; hence the nursing question was a social and economic problem. Modern therapeutics had gained much by a close observation of what was indicated, permitted, or required in early life. The appreciation of electricity had been greatly enhanced by obstetricians, pædiatrists, and general practitioners. Among the probabilities of the therapeutical future could be counted the prevention of congenital malformations. The number of such malformations was far greater than was shown by statistics, and many of them were the result of heredity, syphilis, or other known influences. How many were the result of consanguineous marriages would have to be learned. Treatment of parents or prevention of injurious marriages would have to be insisted upon. The problem of health and hygiene of the older child referred to more than its food, and the school question was in the foreground. Innumerable questions belonged to the domain of the school physician, an official relatively new. Bulgaria and Hungary had no schools without their physicians. It must be learned that physical development, greater weight, and larger breathing capacity corresponded with increased mental power. A knowledge of the physiology and pathology of the nervous system would be defective without lessons derived from the fœtus and infant. The influence of heredity was of equal importance to the pædiatrist, the pedagogue, the psychiatrist, the judge, and the statesman. Epilepsy had been acknowledged to be one of the causes of imbecility and genuine idiocy. The influences of hereditary syphilis on the diseases of the nervous system had been studied for twenty years by neurologists and pædiatrists. Neoneuroses were not infrequent in infants and children. The connection of pædiatrics with psychiatry was very intimate. Insane children were much more numerous than the statistics of lunatic asylums would appear to prove, for but few such children were in general institutions. But there had been much exaggeration by those who liked to revel in horrors as to the distinct symptoms of mental degeneracy. Many liked to believe with Lombroso that brown hair and eyes, brachycephalic heads, and a medium size of the body characterized the insane criminal. But it was certainly not true, as Lombroso would have it, that children were cruel, lazy, lying, and thievish, and there were those who believed that Lombroso had proved in himself his teaching of the risk connected with genius. In conclusion, Dr. Jacobi said that the young were the future owners of the world. Their physical, intellectual, and moral condition would decide whether the globe was to be more criminal or more righteous. For their education and training and capabilities the physician and mainly the pædiatrist would become responsible. After all had been accomplished that was now the pædiatrist's ideal, there would still be new problems for their unknown progeny to solve.

How to Feed a Baby Deprived of the Breast.—Dr. William P. Northrup, of New York, read a paper thus entitled. He said that it was useless to talk of the use of goat's, ass's, or mare's milk for the feeding of infants in America. Cow's milk alone was practicable, and must be the basis of infant feeding. In the preparation of it, it was essential to have a clean, dust free laboratory and skilled service, and all that could not be had without expense. To produce the best results, the farm and laboratory must have a capable manager, an inspector, a chemist, a bacteriologist, etc. The prepared food must be as near as possible like the human breast milk. But breast milk varied and did not always agree with the child. Cow's milk had been found to contain double the quantity of proteids and the same amount of fats found in breast milk, and the first problem to be solved was that of how to dilute the proteids and retain the fats. That was solved by first removing all the fats, then diluting the proteids, then returning the fats to the milk. The function of the milk laboratory was to fill prescriptions. The physician could know exactly what the infant was taking, and could know what element disagreed. In that way milk could be modified to meet the demand of the individual.

The Chairman called attention to the fact that one of the greatest drawbacks was the commercial side of the question, but that had nothing to do with the principle involved in the percentage system. The laboratories must always be out of the hands of commerce and in charge of scientific investigators.

Intestinal Occlusion in Infancy and Childhood.—Dr. Edward Saunders, of St. Louis, read a paper thus entitled. He considered that the subject had not received the attention it deserved. In the textbooks the information was misleading. One of these referred to it as a dilatation of the stomach due to rhachitis. Dr. Saunders reviewed the ætiology, symptoms, and treatment of the condition.

Pneumonia in Infancy was the title of a paper by Dr. John L. Morse, of Boston. He stated that infants were especially liable to the disease because of the undeveloped condition of their lungs. That, however, did not predispose to lobar pneumonia. The condition was most common in the early spring or late winter. Dr. Morse gave very full statistics on the mortality of the condition and reviewed the ætiology, symptomatology, and treatment.

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Book Notices.

A Laboratory Manual of Human Anatomy. By Lewellys F. Barker, M. B., Tor., Professor and Head of the Department of Anatomy in the University of Chicago and Rush Medical College. Assisted by Dean De Witt Lewis, A. B., M. D., and Daniel Graisberry Revell, A. B., M. B., Instructors in Anatomy in the University of Chicago. Illustrated. Philadelphia and London: J. B. Lippincott Company, 1904. Pp. 583.

A review of this book cannot be condensed into a few sentences. There are so many features, most of them to be commended and some that possibly may lead to an honest difference of opinion as to their utility or expediency, that it is necessary to take more space than usual for reviewing a work of this character. The book itself is of convenient size, well bound, and printed on a fine grade of paper in a well chosen variety of clear type that conforms to a definite scheme for headings, subheadings, important, and less important subject matter.

The illustrations are all good, well selected, and numerous enough to help the student along his way. References to illustrations in other standard textbooks are frequently introduced, so that the deficiency in the *Manual* may be met by consulting such authorities.

The bibliography suggested to students for use and reference is an innovation and an excellent idea. The references throughout the work to other volumes and papers for special articles is a great aid to the student if he will take the trouble to find and read such writings.

Another excellent idea is the introduction of a list of general anatomical terms with their English equivalents. The scheme of dissection is more after the European method than the usual one observed here.

It would be very helpful if the order of dissection for the various subdivisions of the body was given more in detail, so that each man would know just when in reference to the others he was to begin and how long to remain upon a certain region. This is especially advantageous when there are eight or even ten students at work, as Dr. Barker mentions, for, unless there is a very carefully arranged "time system" to harmonize the work there will follow more or less confusion and interference.

While the order of dissection is a recognized one of merit, still there are minor grounds for criticism, as, for instance—the very early separation of the upper extremity from the trunk destroys the mutual relation of those parts, and students will fail to fully observe and study them. Again, the dissection of the gluteal region, the popliteal area, and following this the posterior part of the thigh, is rather an inversion of the natural sequence of dissection.

The nomenclature follows that of the German Society of Anatomists. A systematic and accurate onomatology is very desirable, yet it will take a long time to supplant some of the present anatomical terms by others of greater length or no more significance than those at present in general use, as, for instance, calling the "small sciatic" nerve the "posterior cutaneous nerve of the thigh"; substituting "oval fossa" for the "saphenous opening," or the "nerve of the calf" for the "short saphenous nerve." Will "ligamentum laciniatum" give a student a clearer idea of the position and nature of the structure than the term "internal annular ligament," or the "inguinal aponeurotic falx" than the old expression, "conjoined tendon," and the "lacertus fibrosus" than the "bicipital fascia."

Notwithstanding the presence of some features the utility of which we question, the book, on the whole, is a model of clear thinking and concise expression, and will be a valuable aid to any one, student or teacher, engaged in practical anatomical work.

The Principles of Relief. By Edward T. Devine, Ph. D., LL. D., Author of *The Practice of Charity;* General Secretary of the Charity Organization Society of the City of New York. New York: The Macmillan Company; London: Macmillan & Co., Ltd., 1904. Pp. vi-495. ($2.00.)

The tendency to organization that is so characteristic of human society as it is constituted to-day has in no instance been more usefully or successfully developed than in the systematization of the principles of relief to that persistently existent element that for various reasons is unable to help itself. As fast as units disappear by reason of death or because of the acquisition of knowledge of self-help, new units are by various causes added to the social element referred to, so that it is impossible to look to a future when the poor will not be with us.

Hence the necessity of the careful consideration of all phases of this important subject by the student of social economy.

The author of this volume presents a carefully considered statement of the principles of relief. To avoid the danger of pauperization or the danger of exceeding the need, there should be discrimination based on full knowledge of all facts about applicants for aid, disciplinary treatment of those who are criminally responsible for dependence, relief with trained oversight for those who cannot maintain a normal standard of living, and refusal of charitable aid to those who can. The standard of living, the elimination of disease, the housing problem, the relief of families at home, relief as modified by the constitution of the family, the breaking up of families, dependent children, dependent adults, family desertion, intemperance, industrial displacement, and immigration are treated of as they are related to the subject.

The second part of the book gives a digest of seventy-five illustrative cases of typical relief problems. The third part is devoted to an historical survey of the reform of the English poor law and to public and private outdoor relief in America. The fourth part gives accounts of the methods of relief that were used in such disasters as the Chicago fire, the Johnstown flood, the *Slocum* disaster, etc. The appendices include a draft of a constitution for a charity organization society and rules of the committee on charitable transportation. The book is a valuable contribution to the literature of this important subject.

The Essentials of Chemical Physiology. For the Use of Students. By W. D. Halliburton, M. D., F. R. S., Fellow of the Royal College of Physicians; Professor of Physiology in King's College, London, etc. Fifth Edition. Illustrated. London, New York and Bombay: Longmans, Green & Co., 1904. Pp. xi, 236.

In this new edition the author has introduced a lesson on the detection of the elements contained in substances of physiological interest, so as to form a link in the work of the student who passes from the study of pure chemistry to that of chemical physiology. A number of new exercises have been introduced, and the sections on fats, milk, muscle, pancreatic digestion, and Kjeldahl's method of estimating nitrogen have been rewritten. The work is a most useful handbook for laboratory work in chemical physiology.

BOOK AND MAGAZINE NOTES.

An interesting article in the January *Strand Magazine,* is The Promise of Science. It is a "symposium" on the factors, food, and forces of the future, by Marcelin Berthelot, Lord Kelvin, Lord Avebury, Sir William Crookes, Sir William Ramsay, Sir Oliver Lodge, and Professor Ray Lankester. The possibility of the utilization of the direct heat of the sun and of the heat of the earth's centre is a point of argument amongst the distinguished men of science.

BOOKS, PAMPHLETS, ETC., RECEIVED.

Lectures on Diseases of Children. By Robert Hutchison, M. D., F. R. C. P., Assistant Physician to the London Hospital and to the Hospital for Sick Children; Author of *Food and the Principles of Dietetics,* etc. London, 1904: Edward Arnold. Pp. xii-338. [8s. 6d. net.]

New or Noteworthy Philippine Plants, II. By Elmer D. Merrill, Botanist. 1904-No. 17. Department of the Interior. Bureau of Government Laboratories. Issued October 1, 1904. Manila, 1904: Bureau of Public Printing. Pp. 47.

Transactions of the American Otological Society, Thirty-seventh Annual Meeting, Atlantic City, N. J., July 11th and 12th. Volume VIII, Part III. Published by the Society, 1904. Pp. 209.

American Public Health Association. The United States of America. The Dominion of Canada. The Republic of Mexico. The Republic of Cuba. Final Announcement. Thirty-second Annual Meeting to be held at Havana, Cuba, Monday, Tuesday, Wednesday, Thursday, and Friday, January 9, 10, 11, 12, 13, 1905.

The Milk and Cream Supply of Cities. What It Is and What It Shall Be. By Julius Moldenhawer, Salem, N. Y. Pp. 80.

Part I. Amœbas: Their Cultivation and Ætiological Significance. By W. E. Musgrave, M. D., and Moses T. Clegg. *Part II. Treatment of Intestinal Amœbiases* (*Amœbic Dysentery*) *in the Tropics.* By W. E. Musgrave, M. D. No. 18, October, 1904. Department of the Interior, Bureau of Government Laboratories, Biological Laboratory. Manila, 1904: Bureau of Public Printing. Pp. 117.

Précis d'Auscultation et de Percussion du Poumon et du Cœur; Signes Physiques. Par J. Vires, Professeur agrégé, et P. Pagès, Chef de clinique médicale, à la faculté de médecine de Montpellier. Montpellier, 1905: Coulet et Fils. Paris: Masson et Cie. Pp. xvi-136. [Fr. 2.50 net.]

Miscellany

Aseptic Surgical Technics.—Monks, in the *Annals of Surgery,* for October, 1904, summarizes the minimum requirements for aseptic work as follows:

1. Materials to be sterilized in saturated steam in the autoclave for half an hour, under fifteen pounds pressure; rubber gloves and salt solution under ten pounds pressure. If there is not sufficient space in the autoclave for the gauze dressings they may be baked.
2. In hospitals without proper facilities for sterilization of absorbable ligatures they may be obtained from reliable dealers.
3. An operating room which can be easily cleaned, and which is cleaned, the air being kept as free from dust as possible, draughts minimized, and formalin fumigation thoroughly practised.
4. A hot bath for the patient, and cleansing and shaving of the operative surface the night before the operation, if possible. Just before operation a second cleansing and sterilization with 70 per cent. alcohol, or some equally efficient method.
5. Thorough mechanical cleansing of the hands and sterilization with 70 per cent. alcohol, or some equally efficient method.
6. Ten minutes boiling for instruments, special attention being paid to unlocking clamps and hæmostatic forceps.
7. Caps, masks, and sterile gloves always to be worn, at least in major cases.
8. Warm sterile salt solution for irrigation and washing.
9. Belief in the aseptic idea, fixed aseptic habits, and aseptic cooperation on the part of all engaged in an operation.

10. Instruction of assistants and nurses in the foregoing plan.

Gastrointestinal Toxæmia.—Rachford, in the *Archives of Pœdiatrics,* for September, 1904, defines this condition as a systemic intoxication produced by poisons formed in and absorbed from the gastrointestinal canal. Autotoxines are not intestinal toxines. The intestinal contents are toxic even under normal conditions and this toxicity is greatly increased by the toxines produced by the bacterial fermentation of foods, the result being profound systemic intoxication. The poisons produced by bacteria in the intestinal canal may be derived from three sources. The components of dead bacteria may furnish proteins, some of which are poisonous, for example, tuberculin, which is a product of the tubercle bacillus. Living bacteria in the intestinal canal may excrete ferments which produce the most profound nervous symptoms, and these are believed to be potent factors in producing intestinal toxæmia. Substances produced by bacteria from the culture media are most important sources of intestinal intoxication. Such are the ptomaines, their virulence depending upon the microorganisms which produce them, and the character of the food material in which they have been cultivated. Other substances may also produce intestinal toxæmia, among them indol, skatol, etc. Constipation is the most important predisposing factor to both acute and chronic intestinal toxæmia; other factors may relate to the food, which may be excessive in quantity, indigestible, or food which has already undergone fermentation. Lack of fresh air and exercise, individual peculiarities, etc., may also be determining factors. Many poisons become innocuous after leaving the intestine, their virulence being removed during their passage through the liver. Acute intestinal toxæmia is more common in the infant and young child than in the adult, the principal cause of this being the great irritability and immaturity of the nervous system in the child. A small quantity of virulent material absorbed by a child may cause fever, convulsions, etc., the same quantity being easily resisted by an adult. Chronic intestinal toxæmia is produced by the same poisons which cause the acute variety, but they are absorbed in smaller quantities and over a longer period of time. This form of disease is an important causative factor in many of the nervous conditions from which children suffer. It may be associated with either constipation or diarrhœa. Symptoms which may be produced or exaggerated by this cause are malnutrition, anæmia, headache, malaise, fever, heightened reflexes, convulsive disorders, restlessness at night, hysteria, incontinence of urine, brachycardia, hyperæsthesia, paræsthesia, psychoses, and various other symptoms. Intestinal toxæmia may complicate typhoid fever, malaria, tuberculosis, and other diseases of the alimentary canal. The urine may contain an excess of indican and the ethereal sulphates, these being evidence of excessive fermentation, and retardation in the intestinal canal of albumenoid material. Worms in the intestine may be a cause of nervous symptoms, but it does not follow that they have exceeded the poisons which cause toxæmia.

Papillary Cysts and Papillary Tumors of the Ovaries With a Consideration of the Prognosis and Treatment.—Pozzi, in the *American Journal of Obstetrics,* for October, 1904, speaks of cysts and papillary tumors of the ovary as forming but one clinical and anatomopathological group. They have two important features, ascites, which is often considerable in connection with external vegetations, and disseminated growths over the parietal and visceral peritonæum, while the omentum may or may not be infiltrated. The prognosis is often more unfavorable than is warrantable. They are not necessarily malignant, and can often be completely removed. Even an incomplete operation may be followed by a permanent recovery. The author's conclusions are expressed in the following propositions: 1. Cystic or solid papillary tumors of the ovary are not always malignant. Some of them never undergo malignant degeneration, do not recur, or only after a long time, and do not have metastases. 2. We should differentiate between carcinomatous generalization by the lymphatics and blood vessels and simple grafts which result from contact or from growth upon the peritonæum of detached papillary vegetations of the ovary. They may be compared with papillomata and warts of the skin. 3. Some of these tumors undergo a malignant process which is limited at first, then extends over the mass and finally results in cancer metastases. Before the final period malignancy can be determined only with the microscope and even such an examination may be misleading, for the malignant process may be very limited in extent. In the cases which are clearly malignant removal will be futile, if not impossible. 4. In the absence of cancerous cachexia or visceral metastases these tumors should be removed as extensively as possible. The disseminated growths may disappear, or if they recur it may be possible to remove them at a subsequent operation. 5. Frequency of successive invasion of both ovaries by papillary tumors constitutes indication for removal of the annexa of both sides, even if the annexa of one side appear to be healthy, especially in women who are approaching the menopause. In young women conservative operations should be performed unless the tumor is clearly cancerous, in which case the annexa and the uterus also should be removed. 6. With bilateral papillary tumors the operation will be simplified by performing sub-total or total hysterectomy. The latter should be performed if malignant degeneration is feared. If the bilateral papilloma is benign sub-total hysterectomy is preferable, since it may be performed more rapidly and is less serious. Hysterectomy in bilateral tumors simplifies the technics and makes the control of hæmorrhage easier. 7. Drainage is not necessary when cysts do not present outside vegetations, and when there is no ascites. If ascites is present the peritonæal cavity should be drained for some time. Incomplete removal or even an exploratory incision is sometimes accompanied by a diminution of ascites with local and general improvement. An incision with drainage for forty-eight hours is preferable to tapping in every kind of ascites. The operation is more definite, and the improvement is apt to be more durable.

The Leucocytosis of Pregnancy, of the Puerperium, and of Eclampsia.—Lobenstine, in the *American Journal of the Medical Sciences,* for August, 1904, realizes that general conclusions cannot be drawn from the study of the small number of cases which he has tabulated, but he feels justified in offering the following propositions:

1. The toxines of eclampsia usually cause a leucocytosis, the exact cause of which has not yet been explained.
2. All things being equal, the degree of leucocytosis depends on the degree of toxicity of the patient.
3. The greater the resistance of the patient the higher the leucocytosis.
4. A sudden increase in the leucocytes generally indicates an aggravation of the disease in an individual with good resistance.
5. A low leucocyte count in a highly toxic patient is of bad omen.
6. A leucocytosis originally high, that falls rapidly in a toxic patient, is also of bad significance.
7. There is no direct relation between the leucocyte curve and the temperature curve.

The foregoing propositions were based upon careful observations. They were verified by a second observer when the count was unusually high, and there was no evidence of uterine infection in any case.

Official News.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the week ending December 23, 1904:

Place.	Date.	Cases.	Deaths.
Smallpox—United States.			
California—Stockton	Nov. 1-30	2	
Illinois—East St. Louis	Dec. 1-17	18	2
Indiana—Evansville	Dec. 17	83	
Louisiana—New Orleans	Dec. 10-17	4 Two imported.	
Michigan—at 70 places	Dec. 3-10	Present.	
Minnesota—Aitkin County	Dec. 5-12	3	
Minnesota—Otter Tail County	Dec. 5-12	2	
Minnesota—Rice County	Dec. 5-12	1	
Minnesota—Todd County	Dec. 5-12	5	
Minnesota—Wilkin County	Dec. 5-12	3	
Missouri—St. Louis	Dec. 10-17	12	1
New York—New York	Dec. 10-17	2	
Ohio—Canton	Dec. 3-10	1	
Pennsylvania—Altoona	Dec. 10-17	1	
South Carolina—Charleston	Dec. 14	1 imported	
Tennessee—Memphis	Dec. 10-17	1 imported	
Tennessee—Nashville	Dec. 10-17	2	
Smallpox—Foreign.			
Austria-Hungary—Prague	Nov. 19-26	12	
China—Shanghai	Nov. 5-12	2	
France—Paris	Nov. 26-Dec. 3	15	
Great Britain—Bradford	Nov. 19-Dec. 3	6	
Great Britain—Leeds	Nov. 26-Dec. 3	2	
Great Britain—London	Nov. 19-26	2	
Gt. Britain—Newcastle-on-Tyne	Nov. 26-Dec. 3	11	1
Great Britain—Nottingham	Nov. 26-Dec. 3	1	
India—Bombay	Nov. 15-22		2
India—Madras	Nov. 12-18		3
Italy—Catania	Nov. 24-Dec. 1		3
Russia—Moscow	Nov. 19-26	2	1
Russia—Warsaw	Oct. 15-Nov. 5		15
Switzerland—Zurich	Nov. 19-26		1
Yellow Fever			
Ecuador—Guayaquil	Nov. 16-23		1
Mexico—Coatzacoalcos	Nov. 26-Dec. 10	4	5
Mexico—Juchitan	Dec. 4-10	2	
Mexico—Tehuantepec	Dec. 4-10	1	1
Mexico—Texistepec	Dec. 4-10	1	1
Panama—Panama	Dec. 5-12	3	
Cholera.			
India—Calcutta	Nov. 5-19		65
Russian Empire—Baku district	Oct. 24-Nov. 19		20
Russian Empire—Erivan	Oct. 24-Nov. 19	254	134
Russian Empire—Samara dist.	Oct. 24-Nov. 19	64	
Russian Empire—Serachs	Oct. 24-Nov. 19	3	
Russian Empire—Zaragyn	Oct. 24-Nov. 19	21	17
Turkey in Asia	Nov. 21	84	63
Plague.			
Arabia—Aden	Nov. 3	Present.	
Australia—Brisbane, vicinity of	Nov. 5	1	
Ceylon—Colombo	Nov. 3-11	6	4 Imported on steamship *Torridge* from Burmese ports.
Egypt—Tukh district	Nov. 12-19	1	1
India—Bombay	Nov. 15-22		57
India—Calcutta	Nov. 5-19		14
India—Karachi	Nov. 13-20	13	8
Mauritius	Sept. 9-Oct. 13	101	82
Peru—Callao	Oct. 24-31	3	
Peru—Eten	Oct. 24-31	21	9
Peru—Pecasmayo	Oct. 31	Present.	

Public Health and Marine Hospital Service:

List of Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the Public Health and Marine Hospital Service for the seven days ending December 21, 1904:

Carter, H. R., Surgeon. Detailed to represent the Service at meeting of Pan-American Medical Congress to be held at Panama, R. P., January 3 to 6, 1905.

Carrington, P. M., Surgeon. Reassigned to duty as Medical Officer in Command at Fort Stanton, N. M., to date from December 18th.

Hall, L. P., Pharmacist. Relieved from duty at Cape Charles quarantine, and directed to proceed to Louisville, Ky., and report to Medical Officer in Command for duty and assignment to quarters. December 16, 1904.

Magruder, G. M., Surgeon. Granted leave of absence for one month, on account of sickness, from December 23rd.

Peck, F. H., Pharmacist. Services discontinued, to take effect December 16th.

Perry, J. C., Surgeon. Detailed to represent the Service at meeting of Pan-American Medical Congress to be held at Panama, R. P., January 3 to 6, 1905.

Pettus, W. J., Assistant Surgeon-General. Granted leave of absence for five days from December 27th.

Pierce, C. C., Assistant Surgeon. Detailed to represent the Service at meeting of Pan-American Medical Congress to be held at Panama, R. P., January 3 to 6, 1905.

Stoner, G. W., Surgeon. Granted seven days' leave of absence under paragraph 189 of the regulations from December 16, 1904.

Van Ness, G. I., Jr., Pharmacist. Relieved from duty at Louisville, Ky., and directed to proceed to Evansville, Ind., and report to Medical Officer in Command for duty and assignment to quarters. December 16, 1904.

von Ezdorf, R. H., Passed Assistant Surgeon. Granted leave of absence for four days from December 21st.

Casualty.

Acting Assistant Surgeon D. M. Echemendia died at Havana, Cuba, December 19, 1904.

Promotions.

Passed Assistant Surgeon Alexander C. Smith, commissioned (permanent) as surgeon, to rank as such from December 17, 1904.

Assistant Surgeon J. W. Schereschewsky, commissioned nent) as passed assistant surgeon, to rank as such from November 11, 1904.

Assistant Surgeon C. W. Wille, commissioned (permanent) as passed assistant surgeon, to rank as such from November 25, 1904.

Assistant Surgeon J. W. Amesse, commissioned (permanent) as passed assistant surgeon, to rank as such from November 4, 1904.

Assistant Surgeon R. L. WILSON, commissioned (permanent) as passed assistant surgeon, to rank as such from December 1, 1904.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending December 24, 1904:

GEIGER, A. J., Assistant Surgeon. Ordered to the *Prairie.*

NORTON, O. D., Surgeon. Detached from the *Illinois* and granted sick leave for three weeks.

PEASE, T. N., Assistant Surgeon. Detached from the *Hartford* and ordered to the *Columbia.*

TOLFREE, H. M., Assistant Surgeon. Ordered to the *Hancock.*

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending December 24, 1904:

DESHON, GEORGE D., Major and Surgeon. Promoted major and surgeon, to rank from December 5, 1904.

EWING, CHARLES B., Major and Surgeon. Leave of absence extended seven days.

FISHER, HENRY C., Major and Surgeon. Relieved from duty at Camp George H. Thomas, Georgia, and ordered to sail on April 1, 1905, for duty in the Philippine Islands.

GRAY, WILLIAM W., Major and Surgeon. Relieved from duty at Fort McPherson, Ga., and ordered to sail on April 1, 1905, for duty in the Philippine Islands.

HARTNETT, E. H., First Lieutenant and Assistant Surgeon. Granted three months' leave of absence, with permission to go beyond the sea.

HOFF, JOHN VAN R., Lieutenant Colonel and Deputy Surgeon General. Assigned to duty at Fort Leavenworth, Kan., with the Infantry and Cavalry School and Staff College.

IVES, FRANK J., Major and Surgeon. Relieved from duty at Fort Sheridan, Ill., and on expiration of present leave will proceed to Manila for duty in the Philippines.

JONES, PERCY L., First Lieutenant and Assistant Surgeon. Reports from duty as transport surgeon on the *Sumner* to detached service with recruits to Angel Island, Cal.

KENDALL, WILLIAM D., Major and Surgeon. Relieved from duty at the Presidio of Monterey, Cal., and ordered to sail on March 1, 1905, for duty in the Philippine Islands.

MARROW, CHARLES E., First Lieutenant and Assistant Surgeon. Granted three months' leave of absence.

MATHEWS, GEORGE W., First Lieutenant and Assistant Surgeon. Ordered to report to Major William C. Borden, president of the Examining Board, Washington, D. C., for examination to determine his fitness for promotion.

SHILLOCK, PAUL, Major and Surgeon. Relieved from duty at Fort Sheridan, Ill., and on expiration of present leave of absence will proceed to Manila for duty in the Philippine Islands.

SILER, JOSEPH F., First Lieutenant and Assistant Surgeon. Left Fort Logan, Colo., *en route* to Fort Douglas, Utah, for temporary duty.

SMART, CHARLES, Colonel and Assistant Surgeon General. Relieved from further treatment at the Army and Navy General Hospital, Hot Springs, Ark., and will report to Washington with a view to appearing before a retiring board.

STARK, ALEXANDER N., Captain and Assistant Surgeon. Relieved from duty with the Isthmian Canal Commission, and upon expiration of leave of absence will proceed to Manila for duty in the Philippine Islands.

TURNBULL, WILFRID, First Lieutenant and Assistant Surgeon. Ordered to report to Major William C. Borden, president of the Examining Board, Washington, D. C., for examination to determine his fitness for promotion.

WINTER, FRANCIS A., Major and Surgeon. Relieved from duty at Fort Huachuca, Ariz., and ordered to sail on March 1, 1905, for duty in the Philippine Islands.

Births, Marriages, and Deaths

Born.

BARNEY.—In Fort Schuyler, N. Y., on Monday, December 19th, to Dr. Charles Norton Barney, United States Army, and Mrs. Barney, a son.

ELY.—In Waterbury, Connecticut, on Wednesday, December 7th, to Dr. Clarence F. Ely, United States Navy, and Mrs. Ely, a daughter.

Married.

EATON—WALKER.—In Schuylkill, Pennsylvania, on Friday, December 16th, Dr. William Bradford Eaton and Miss Mary H. Walker.

LOCKE—SCARTH.—In Irvington, N. Y., on Saturday, October 12th, Dr. Charles F. A. Locke and Miss M. A. Mary Scarth.

PENROSE—STOWE.—In Baltimore, Maryland, on Wednesday, December 14th, Dr. Clement A. Penrose and Miss Helen Stowe.

RYERSON—HAMILTON.—In Chicago, on Tuesday, December 6th, Dr. Edwin Warner Ryerson and Miss Adelaide Hamilton.

SHIELDS—PAGE.—In Winchester, Virginia, on Wednesday, December 7th, Dr. Randolph Tucker Shields and Miss Ellen Randolph Page.

WOODIN—HUNTSMAN.—In Seattle, Washington, on Thursday, November 24th, Dr. Scott P. Woodin and Miss Imogen Ashley Huntsman.

Died.

BIRTWELL.—In Providence, Rhode Island, on Thursday, December 8th, Dr. Charles E. Birtwell.

BLINCOE.—In Bardstown, Kentucky, on Saturday, December 10th, Dr. A. G. Blincoe, in the sixty-first year of his age.

BRYANT.—In La Junta, Colorado, on Monday, December 4th, Dr. R. S. Bryant.

BUTLER.—In Montclair, New Jersey, on Tuesday, December 20th, Dr. Clarence Willard Butler, in the fifty-seventh year of his age.

CARDWELL.—In Oklahoma City, Oklahoma, on Monday, December 12th, Dr. Peter Cardwell.

ELEBASH.—In New York, on Tuesday, December 20th, Dr. Clarence S. Elebash, in the forty-sixth year of his age.

FISKE.—In Brooklyn, N. Y., on Wednesday, December 21st, Dr. William M. L. Fiske, in the sixty-fourth year of his age.

GILFILLAN.—In Brooklyn, N. Y., on Sunday, December 18th, Dr. William Gilfillan, in the seventy-second year of his age.

HEMINGWAY.—In New York, on Sunday, December 18th, Dr. Samuel Hemingway, in the fifty-first year of his age.

KIRCHOFFER.—In New York, on Monday, December 19th, Dr. George W. Kirchoffer.

RINGE.—In St. Louis, Missouri, on Wednesday, December 14th, Dr. Joseph Ringe, in the sixty-sixth year of his age.

TURNER.—In Fargo, North Dakota, on Sunday, December 11th, Dr. F. S. Turner, United States Army.

WESSELHOEFT.—In Newton Centre, Massachusetts, on Saturday, December 17th, Dr. Conrad Wesselhoeft, in the seventy-second year of his age.

WHITE.—In Baltimore, Maryland, on Sunday, December 18th, Dr. Alphonso A. White, in the seventy-fourth year of his age.

WHITNEY.—In Chicago, on Thursday, December 15th, Dr. Lorenzo W. Whitney, in the sixty-sixth year of his age.

WINSTON.—In Hanover, Virginia, on Sunday, December 11th, Dr. B. L. Winston.

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A WEEKLY REVIEW OF MEDICINE

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INDEX TO VOLUME LXXX.

PAGE.

ABBOTT, ALEXANDER C. Address in hygiene and State medicine.. 713
Abdomen, wounds of, with visceral hernia 610
  gunshot wounds of.............. 757
Abdominal aorta, aneurysm of.......1175
  belt, Dr. Achilles Rose's........ 168
  disorders, delusions dependent on.1225
  inflammation, acute stages of.... 135
  pain from irritation at internal hernial ring.................. 38
  surgery, postoperative calamities in 523
  viscera, ptosis of............... 507
Abortion, criminal, social causes of... 661
  instrumental termination of...... 705
  microscopical diagnosis of........ 658
  missed 1071, 1187
Abscess, acute mammary........... 512
  of the liver following abdominal infection 707
  pericemental, diagnosis, symptomatology and treatment of...... 755
  periurethral, bacteriology of...... 321
  pulmonary, treatment of......... 178
  subphrenic, difficulty in diagnosis of 857
Abscesses, cold, treatment of........ 900
  multiple, of the omentum........1043
Academy, American, of Ophthalmology and Laryngology......461, 511, 653
  of Medicine, New York......649, 651, 699, 747, 794, 988, 1085, 1131, 1180
Accident cases involving litigation, professional responsibility in..631, 1243
Aciduria with death after anæsthesia. 127
Acne in children, treatment of...... 838
  keratosa 180
Acrodermatitis, three forms of...... 275
Actinomycosis, a clinical study of....1000
Activities, automatic and intelligent.. 832
Addison's disease, classification of.... 663
Adenitis, tuberculous, treated by x ray 1003
Adenoid growths, improved forceps for the removal of................ 858
  in infants...................... 309
Adenomyomata, two cases of........ 562
Adiposis dolorosa (Dercum's disease). 703
Adulterants and preservatives, influence of 941
Advertisements, repulsive newspaper.. 939
Æstivoautumnal fever............... 131
Albumin in urine, quantitative determination of.................... 467
Albuminuria, functional............. 180
  of pregnancy, a study of......... 860
Albumoses in tuberculous caseation.... 177
Alcohol in medicines................ 122
  methyl, its properties, uses, and abuses 1009
  physiological action of........... 951
  use of, in the Tropics...........1238
Alcoholism and drug habits.......... 421
  and inebriety.................... 516
  treatment of..................... 564
Alimentary canal, bacteriology of......1192
  tract, passage of a tooth plate through 982
Allingham, Herbert W., death of.....1084
Allison, Nathaniel, and Jones, Harold W., Disability of the shoulder joint 930
Allport, Frank. Chronic purulent otorrhœa 633
Almshouse, a new, for Philadelphia.. 460
Amblyoscope; Worth, in the treatment of squint................1065, 1118
Ammonia, explosion of, danger in.... 71
Amputations, a study of............ 180
  osteoplastic 466
Amygdalitis, blood poisoning from.... 902
Anæmia, chronic splenic............. 441
  due to hookworm infection...... 79
  influence of, on infection.........1138
  pernicious 179
  splenic, of infancy..............1241
  splenic, permanent cure for...... 706
  splenic, six cases of............. 855
  splenic, the clinical features of.... 856
Anaerobes, the cultivation of........ 183
Anæsthesia, advantages of performing capital operations without.....1243
  by the use of ethyl chloride...... 708
  experimental work on........... 567
  chloroform 757
  chloroform, status lymphaticus and death following............... 405
  ethyl chloride................... 417
  general, technique in............ 300
  scopolamine-morphine 562
  sterile water.................... 901
Anæsthesias, eleven thousand, observations drawn from an experience of 919

PAGE.

Anæsthetic apparatus, improvements in. 181
  a new local..................... 113
  camphor as an.................. 65
Anæsthetics, clinical observations on..1192
  general, oxygen in combination with 1044
  ether and chloroform as.........1265
  improved method for administration of.........................1214
Anasarca, dysenteric................ 704
  importance of daily weighing in the treatment of................. 463
Anastomosis, gastric and intestinal... 570
  intestinal 566
Aneurysm, aortic, a rare case of...... 179
  aortic, the treatment of.......... 808
  of abdominal aorta.............1175
Aneurysmata of the aorta........... 241
Angeioma of the breast.............. 850
  of the vastus internus.......... 225
Angeiotripsy in surgery.............. 994
Angina and ulcerative stomatitis...... 34
  catarrhal, remedy for........... 789
  of syphilis and of diphtheria, differential diagnosis of.........1043
  pectoris, a case of.............. 902
  cardiac lesions following.........1186
  pseudodiphtheritic 608
  tuberculous 113
  Vincent's 230, 275, 278
Anhydrooxymethylene-diphosphoric acid, therapeutical uses of......561, 655
Aniline poisoning, a case of.......... 808
Animal industry, bureau of, recent publications of..................1036
Ankylosis, clinical and experimental treatment of.................. 524
  knee, the result of disease.......1003
Ankylostomiasis, treatment of....754, 1280
Annular keratitis, the ætiology of..... 417
Anophthalmus, a case of.............452
Anthrax among cattle............... 269
  serotherapeutic treatment of...... 423
Antibodies, the mode of precipitation of 1042
Antidiarrhœa mixture............... 406
Antihæmolysis, urinary.............. 82
Antipyrine, a curious effect of........ 114
Antistreptococcus serum in the treatment of endocarditis.......... 279
Antitetanic dressing................ 455
Antitoxine, diphtheria, in whooping cough 789
  for hay fever and rose cold...... 813
Antrum, inspection of the............ 711
  trocar, an accident with........1077
Aorta, abdominal, aneurysm of......1175
  abdominal, ptosis of the........ 752
  aneurysmata of the..........241, 808
  pathology of the elastic tissue of.. 49
Aphasia, treatment of...............1277
Apnœa, reflex, and cardiac inhibition in operations on the respiratory tract 852
Apoplexy, traumatic................ 709
Appendicitis, acute, conditions simulating 901
  acute, drainage in............... 80
  and gastric ulcer................ 132
  causative relation of influenza to.. 276
  caused by cancer of appendix..... 371
  chronic, cutaneous eruptions in... 897
  clinical symptoms of............ 79
  illustrative cases of............. 230
  medical treatment of............ 663
  pathology and treatment of...... 422
  streptococcus serum in the treatment of...................... 564
  suppurative 327
  suppurative pylephlebitis in a case of 656
  when to operate for............. 737
  with disease of the tubes and ovaries 255
  with pelvic prolongation......... 670
Appendicular inflammation and diarrhœa 1226
    caused by influenza..........1179
    predisposing cause of........ 900
Appendix and cæcum, the function of.. 854
  cancer of the..............371, 1095
  vermiform, conjectures about..... 409
    disease of, and vegetarianism.1130
    foreign bodies in............1191
    origin of the................ 159
    posterior incision to reach... 551
Archives of the Röntgen Ray......... 362
Army Medical Corps, proposed increase in 1081
    men, qualifications of........ 559
    service, examination for...... 32
    staff, vacancies in the...... 572
  prevention of disease in......... 419
  surgeons to study Japanese and Russian methods..............1040

PAGE.

Arterial sclerosis................349, 758
  tension in disease..............1234
Arteries, action of cold upon..........1186
Arteriosclerosis and arterial atheroma. 76
  relation of acute infections to.... 566
  of spinal cord.................. 515
  of syphilitic origin.............. 566
Arthritis, analytical study of........ 568
  deformans of spine (spondylitis deformans) 387
    treatment of................ 514
  rheumatoid, treated by interrupted circulation 468
    manifestations of........... 326
Ascaris texana...................... 420
Asepsis 806, 1285
  and antisepsis.................. 418
  surgical versus bacteriological.... 803
Ashley, Dexter D., and Mueller, Friederich. The treatment following bloodless reduction of congenital dislocation of the hip.......... 481
ASSOCIATIONS:
  American Electrotherapeutic...... 222
    for the Advancement of Science 1133, 1134
    Medical ...29, 41, 83, 133, 185, 232, 328, 987
    Neurological 271
    of Obstetricians and Gynæcologists 222, 654
    Public Health..............1233
    Surgical 521, 569
  Congress of Arts and Sciences at St. Louis..................... 32
  Congress of Military Surgeons.... 799
  International Congress of Arts and Sciences 471
  Medical, of the Greater City of New York...............699, 1053
  Military Surgeons............... 654
  Mississippi Valley Medical.221, 414, 798
  National, for the Study of Epilepsy 991
  National, for the Study and Prevention of Tuberculosis.315, 316, 1041
  National, of Army Nurses....... 402
  New York County Medical........ 941
    State Medical...121, 793, 794, 1037
  Ohio Valley Medical............. 991
  Pan-American Medical Congress...1088
  Railroad Surgeons, New York and New England.............459, 1037
  Southern Surgical and Gynæcological 1137
  Tri-State Medical, a new........ 847
Asthma, acute, treatment of.......... 65
  infantile, treatment of........... 65
  relation of, to nose disease......1046
Asthmatic lung, tracheal test for...... 37
Atheroma, arterial, and arteriosclerosis. 76
Athletics, the use and abuse of...... 661
Atoms, the synthesis of.............. 554
Atony, intestinal, tobacco in the treatment of....................... 214
Atrophy of the liver, acute yellow.... 704
  progressive muscular............ 323
Atropine, action of, on the intestine..1090
Auditory canal, temperature of...... 898
Aural examinations in diseases of children 330
Auscultation of thoracic percussion notes at the mouth............ 35

BABINSKI'S reflex................. 226
  Baby deprived of breast, how to feed 1283
    how to keep well in hot weather 120
Bacilli, pseudotubercle............... 371
  tubercle acid fast, agglutination of. 320
    changes in, found in immunized animals..............1089
    in urine of tuberculosis patients 1142
    isolated from tuberculosis of mesenteric lymph nodes....1055
  typhoid, agglutination of......... 367
Bacillus aureus fœtidus.............. 407
  colon, Endo's method for distinguishing from typhoid bacillus.. 126
  dysenteriæ 139
  tubercle, the cycle of............ 567
    morphology of.............. 753
  typhoid in urine................. 609
Backache, diagnostic significance of.... 215
Bacon, Gorham. Sigmoid sinus thrombosis 641
Bacteria, saprophytic and parasitic, history of......................1191
Bacteriology of the alimentary canal..1192
  of healthy tissue................ 184
  of periurethral abscess........... 321
  of summer diarrhœa............ 138
Bacteriuria, the significance of....397, 422
Baer, Hermann, bequests to charities by 604

PAGE.
Bailey, Pearce. Sequelæ of typhoid fever in the nervous system.... 100
Baldness following an injury......... 225
Banti's disease, a case of............ 808
Barium chloride, therapeutical value of.1235
Basedow's disease, metabolism in...... 224
treatment of....................1045
Bates, Frank D. W. Reply to Dr. Seabrook's paper on the general practitioner and ophthalmology.1217
Bath, dry carbonic acid gas.......... 57
radiant light, in the treatment of neuroses 163
sea, artificial....................1080
Bathing during the menstrual period.. 789
Baths, artificial..................... 225
Bad-Nauheim 749
cold, in neurasthenia............ 851
Baum, Joseph. Resuscitation from apparent drowning............. 453
Beates, Henry, Jr. Address in medicine 713
Bellevue hospital's famous ward...... 118
pathological laboratories......... 268
Benedict, A. L. Family physician's claim to a case.............68, 116
Bennett's inhaler, attachment to, for administration of anæsthetics..1214
Beriberi 224, 269
Bernd, L. H. Incontinence of urine.. 112
Bernheim, Albert. Quintuplets....... 776
Bier's method of congestive hyperæmia in articular disease............ 752
Bile duct, common, gallstones in...... 572
infectious, consequences of....... 80
Bilharzia disease, a case of.......... 900
Biliary ducts, cancer of..............1138
passages, disinfection of......... 464
tract, the, surgery of............ 515
Bilious fever, hæmoglobinuric, in Algiers 561
Bloson, clinical experiences with...... 75
Birth certificates, the due return of.... 361
Bispham, W. W. Treatment of varicose veins of the leg.........1031
Bladder, contraction of the neck of the. 613
curettage of.................... 947
tumors 38
ulcer of, cicatrization of........ 997
Blake, Joseph A. Treatment of diffuse peritonitis 977
Blood affinities and immunity........ 669
coagulation of the............. 180
in contents of stomach and intestines 564
maternal and fœtal, freezing points of 1138
plasma, influence of hunger and hæmorrhage on composition of..1100
poisoning 77
pressure and shock in traumatic surgery 1242
measurement of, in fevers.... 81
influence of operative procedures upon.............. 815
sugar producing power of the.... 370
value of examination of, in surgery 1273
Board of alienists for the inspection of immigrants 315
of Health, Connecticut.......175, 411
Illinois, resolution adopted by. 842
Jefferson County, Ark.......1135
Massachusetts 1232
Michigan 123, 174, 958
New York, respiratory diseases commission of............ 793
Philadelphia 119
of Medical Examiners, Connecticut. 32
Indian Territory............271
New Jersey............174, 1136
Pennsylvania 71, 364
South Dakota............32, 318
Boards of medical examiners, duties and functions of.............1034
power of..................1242
Boils, cause and treatment of........1242
local application for............ 263
Bone cysts as a type of sarcoma...... 803
regeneration of................. 522
Bones, sarcoma of.................. 169
Book and magazine notes....94, 141, 190, 236, 286, 334, 382, 429, 477, 525, 575, 620, 666, 715, 763, 812, 862, 909, 956, 1004, 1052, 1101, 1150, 1196, 1245, 1285
BOOK NOTICES:
Abaytúa, R. y. Significación Patológica del Cólico Hepático, Pathogenia, Terapéutica........ 811
Allen, Franklin, and Stern. Radiotherapy and Phototherapy...... 665
Ball, James Moores. Modern Ophthalmology 332
Ball, M. V. Essentials of Bacteriology 1050
Barker, Lewellys F. A Laboratory Manual of Human Anatomy...1284
Beck, Carl. Röntgen Ray Diagnosis and Therapy............ 235
Berger, Paul. Chirurgie Orthopédique 619

PAGE.
BOOK NOTICES:
Bergey, D. H. The Principles of Hygiene 763
Bickham, Warren Stone. A Textbook of Operative Surgery...... 428
Bishop, Louis Faugères. Blood Pressure as Affecting Heart, Brain, Kidneys, and General Circulation 1051
Bishop, Seth Scott. Diseases of the Nose, Throat and Ear, and their Accessory Cavities.......1101
Blake, Edward. Eczema and Its Congeners 381
Boas, I. Diseases of the Intestines 189
Bohm and von Davidoff. A Textbook of Histology............ 907
Bordier, H. Les Rayons N et Les Rayons N_1.................. 907
Boston, L. Napoleon. A Textbook of Clinical Diagnosis.......... 908
Brauer, Ludolph. Beiträge zur Klinik der Tuberkulose........ 236
Brubaker, Albert P. A Textbook of Human Physiology.......... 664
Buck, Albert H. Reference Handbook of Medical Sciences......1245
Busch, Frederick C. Kirkes's Handbook of Physiology............ 908
Chapin, H. D. The Theory and Practice of Infant Feeding.... 573
Chipault, A. Manuel d'orthopédie vertébrale.............. 286
Clarke, W. Bruce. The Meaning of a Modern Hospital........ 908
Cleaves, M. A. Light Energy.... 907
Contributions from the William Pepper Laboratory of Clinical Medicine 762
Cornet and James. Tuberculosis and Acute General Miliary Tuberculosis 475
Crofton, Alfred C. Clinical Urinology 619
Cowen, Richard J. X Rays: Their Employment in Cancer and Other Diseases................1245
Cyriax, Edgar F. The Elements of Kellgren's Manual Treatment. 286
Dana, Charles L. Textbook of Nervous Diseases and Psychiatry 811
Davis, Edward P. A Treatise on Obstetrics 1051
Obstetrical and Gynæcological Nursing 574
Delamere, G. The Lymphatics... 93
Devine, Edward T. The Principles of Relief......................1284
Dexter, Edwin Grant. Weather Influences 1051
Dudley, E. C. The Principles and Practice of Gynæcology........1195
Dunham, Edward K. Normal Histology 811
Edgar, J. Clifton. The Practice of Obstetrics 573
Edinger, Ludwig. Vorlesungen über den Bau der nervösen Zentralorgane des Menchen und der Tiere 189
Egbert, Seneca. A Manual of Hygiene and Sanitation.......... 477
Flexner and Holt. Bacteriological and Clinical Studies of the Diarrhœal Diseases of Infancy...... 573
Foster, Frank P. Appletons' Medical Dictionary................ 476
French, Herbert. Medical Laboratory Methods and Tests.......1245
Freund, Leopold. Elements of General Radiotherapy for Practitioners 92
Goldschmidt, J. Die Tuberkulose. 664
Gowers, Sir William R. Lectures on Sensations of Sight and Sound, Abiotrophy, and other lectures. Second series........ 380
Grafstrom, Axel V. A Textbook of Mechanotherapy............ 525
Graub, Dr. Gaston. Die Therapie der Magen, Darm und Konstitutionskrankheiten 189
Haig, Alexander. Uric Acid: An Epitome of the Subject........ 332
Hall, G. Stanley. Adolescence: Its Psychology and Its Relations to Physiology, Anthropology, Sociology, Sex, Crime, Religion, and Education 955
Hall, Winfield S. A Manual of Experimental Physiology.........1195
Halliburton, W. D. Kirkes's Handbook of Physiology............1245
The Essentials of Chemical Physiology 1285
Hamilton, Allan McLane. Railway and Other Accidents...... 664
Hare, Hobart Amory. A Textbook of Practical Therapeutics......1101
Hatcher, Robert A. A Textbook of Materia Medica.............. 763

PAGE.
BOOK NOTICES:
Illoway, H. The Summer Diarrhœas of Infants.............. 574
Jackson, Edward. The Ophthalmic Year Book 286
Janeway, Theodore C. The Clinical Study of Blood Pressure... 525
Kelly, A. O. J. International Clinics 477, 861, 1051
Landois, L. Textbook of Human Physiology 1149
Laumonier. New Methods of Treatment 1196
Lazarus, Paul. Beitrag zur Pathologie und Therapie der Pankreaserkrankungen 333
Lazarus-Barlow, Walter Sydney. A Manual of General or Experimental Pathology for Students and Practitioners............. 140
Leach, Albert E. Food Inspection and Analysis............ 762
Lees, David B. The Treatment of Some Acute Visceral Inflammations and Other Papers........ 762
Leftwich, Ralph Winnington. An Index of Symptoms as a Clue to Diagnosis 715
Leube, Wilhelm v. Medical Diagnosis 332
Magee and Johnson. Epitome of Surgery 762
Mallory and Wright. Pathological Technique 811
Marshall, C. F. Syphilis and Gonorrhœa 1195
Martin, Sydney. A Manual of General Pathology for Students. 140
McCosh and Thompson. Medical and Surgical Report of the Presbyterian Hospital in the City of New York.................... 332
Morris, Henry. Essentials of Materia Medica and Prescription Writing 1004
Nagel, Joseph Darwin. Nervous and Mental Diseases.......... 811
Nancrede, Charles B. Essentials of Anatomy.................1050
New York Eye and Ear Infirmary Reports 285
Nothnagel, Hermann. Diseases of the Intestines and Peritonæum.. 619
Nuttall, George H. F. Blood Immunity and Blood Relationship. 188
Oestreich, R. Anatomie und physikalische Untersuchungsmethoden (Perkussion, Auskultation, etc.)...................1195
Ott, Isaac. A Textbook of Physiology 236
Owen, Edmund. Cleft Palate and Hare Lip..................... 381
Paget, Stephen. The Case Against Antivivisection 141
What We Owe to Experiments on Animals.............. 141
Pusey, William Allen. Practical Application of the Röntgen Rays in Therapeutics and Diagnosis.. 619
Ransom, Brayton H. An Account of the Tapeworms of the Genus Hymenolepis, Parasitic in Man.1149
Reed, Boardman. Lectures to General Practitioners on the Diseases of the Stomach and Intestines 907
Reese, Albert Moore. An Introduction to Vertebrate Embryology.. 189
Ricketts, Benjamin Merrill. The Surgery of the Heart and Lungs. 285
Robson, A. W. Mayo. Diseases of the Stomach and Their Surgical Treatment 862
Roosa, D. B. St. John. Handbook of the Anatomy and Diseases of the Eye and Ear..............1101
Rolleston, H. D. Clinical Lectures and Essays on Abdominal and Other Subjects............... 862
Rosenbach, O. Physician vs. Bacteriologist 762
Rostoski, O. Manual of Serum Diagnosis 1196
Salomon, Max. Die Tuberkulose als Volkskrankheit und ihre Bekämpfung durch Verhütungsmassnahmen 188
Sargent, Dudley Allen. Health, Strength, and Power..........1195
Saxe, G. A. De Santos. Examination of the Urine............ 908
Schmidt, H. E. Kompendium der Röntgen Therapie............. 525
Senator, H. Health and Disease in Relation to Marriage and the Married State................. 861
Shaw, John C. Essentials of Nervous Diseases and Insanity..1004
Sime, David. Rabies............. 380
Simon, Charles E. A Textbook of Physiological Chemistry........ 763

PAGE.
BOOK NOTICES:
  Soddy, Frederick. Radioactivity.... 477
  Spratling, William P. Epilepsy and Its Treatment.... 714
  Swithinbank, Harold. Bacteriology of Milk.... 428
  Taylor, Robert W. A Practical Treatise on Genitourinary and Venereal Diseases and Syphilis. 956
  Thorington, James. Refraction and How to Refract.... 956
  Toldt, Carl. An Atlas of Human Anatomy.... 1050
  Turner, Dawson. Manual of Practical Medical Electricity.... 714
  Tyson, James. A Treatise on Bright's Disease and Diabetes.... 1149
  Von Behring, E. The Suppression of Tuberculosis.... 861
  Von Bergmann, Professor E. A System of Practical Surgery.
    Surgery of the Alimentary Tract.... 1052
    Surgery of the Head.... 140
    Surgery of the Neck, Thorax, and Spinal Column.... 333
    Surgery of the Pelvis and the Genitourinary Organs.... 1051
  Von Leube, Wilhelm. Medical Diagnosis.... 332
  Von Niessen. Pestbazillen im Pestserum.... 428
  Van Schaick, George Gray. Regional Minor Surgery.... 862
  Walker, Jane R. The Modern Nursing of Consumptives.... 1245
  Wassermann, A. Immune Sera.... 811
  Wilcox, Reynold Webb. A Manual of Fever Nursing.... 477
  Wright, Hamilton. Studies on the Classification and Pathology of Beri Beri.... 715
  Yeo, I. Burney. The Therapeutics of Mineral Springs and Climates. 381
Borax and boric acid, effect of, on the human body.... 765
Boric acid as a poison.... 1130
Brain and spinal cord, method for fixing and hardening.... 129
  injury.... 230
  tumors.... 688, 1189, 1243
Brehmer, Hermann, semi-centennial.... 3
Brick, J. Coles. Diagnosis and treatment of fistula in ano.... 150
Bright's disease and its varieties.. 278, 326, 374, 423
  cause of.... 997
Broadbent's sign, the occurrence of.... 900
Bronchi, extraction of foreign bodies from.... 804
Bronchitis, fibrinous.... 323
Bronchopneumonia.... 759, 856
Bronchus, a pin in.... 369
  removal of foreign body from.... 611
Bunions and hallux valgus, surgical treatment of.... 741
Bureau of health, relation of physician to.... 894, 1014, 1049
Burke, Charles V. Carbolic acid poisoning.... 693
Burtenshaw, James Hawley. Fever of the puerperium.... 20
Butter vs. oleomargarine in Philadelphia.... 795

CADAVERIC changes in the thymus 947
Cæcum, resection of.... 996
Cæsarean section, vaginal, as a substitute for induction of labor.... 1112
  in impacted transverse presentation.... 1243
  in eclampsia.... 1273
Caisson disease, symptoms of.... 469
  clinical phases of.... 1094
Calculi, renal, spontaneous cure of.... 1089
  salivary, origin of.... 609
Calculus, impacted ureteral, nephrotomy and ureterotomy for.... 967
  renal.... 902
    removed by operation.... 807
  vesical, of unusual size.... 680
Camphor as an anæsthetic.... 65
Cancer and herpes zoster.... 746
  and sarcoma, the correlations of, with other tumors.... 743
  and tuberculosis, association of.. 1239
  biological interpretation of.... 421
  critical review of the study of.... 709
  gastric.... 608
  of appendix.... 371, 1095
  biliary ducts.... 1138
  breast, early diagnosis and radical operation for.... 807
  larynx.... 950, 1046
  pancreas.... 40
  stomach.... 278, 370
    diagnosis of.... 901
    tryptophan reaction in.... 370
  of uterus, radical operations for.. 658
  ovarian.... 562
  primary, of lungs.... 1187
  treatment of.... 1240

PAGE.
Carbohydrate metabolism.... 1189
Carbohydrates as ætiological factors in stomach disorders.... 16
Carbolic acid, antidote for.... 983
  poisoning.... 693
  restrictions on the sale of.... 556
Carbonic acid gas bath, dry, effects of, on circulation and heart.... 57
Carcinoma, hospital for the study of.. 269
  of the cervix, pregnancy and successful parturition in a patient with.... 1076
  peritoneal, following ovarian cystoma.... 618
  primary, of the liver.... 571
  treatment of, by the Röntgen ray. 997
Cardiac adynamia in infectious diseases of children.... 65
  disease, relation of states of apprehension to.... 234
  hypertrophy.... 179
  lesions following attacks of angina pectoris.... 1186
Cardiorenal subjects.... 946
Cardiospasm as a cause of dilatation of the œsophagus.... 731
Carotid body, the.... 182
Carstens, J. H. Some "liver" cases.. 97
  Hospital management.... 1267
Castration penalty for rape.... 318
Cataract, operation for.... 887, 1277
Catarrh of the conjunctiva.... 754
  spring.... 618
Catarrhal conditions, hydrastis in the treatment of.... 949
Catgut, modified Claudius's method for the preparation of.... 998
  sterilization of by Claudius's method.... 899
Cathelin's treatment of urinary incontinence.... 1033
Catheter holder, self-retaining, and perineal drainage tube supporter.... 1048
Catheterization, aseptic.... 467
Catheters, glass.... 949
Cauda equina, disease of the.... 662
Centigrammes or grains.... 171
Cerebral infection.... 423
  injury.... 131
Cerebrosclerosis of arterial origin.... 1234
Cerebrospinal fluid, examination of. 34, 1281
Cervantes, the medical wisdom of.... 766
Cervical enlargement, motor centres in. 1275
  ribs, existence of, in man.... 422
  vertebræ, fracture of.... 903
Cervix, immediate repair of.... 905
  lacerations of.... 422
  suture of.... 426
  uteri, dilatation of.... 1238
    lacerations of.... 426, 427
Chancre of the cervix uteri.... 793
  soft, surgical theatment of.... 655
Chandler, George. Hypernephroma as a result of traumatism.... 451
Chapped hands, a remedy for.... 454
Chassaignac, Charles. The vermiform appendix.... 409
Chemotaxis, reaction of protoplasm in relation to.... 82
Chickenpox, cause of.... 659
Childbed, deaths in.... 131, 184, 230
Children, acute diseases of.... 330
  diseases of.... 1239
  diseases of, caused by affections of the nose.... 331
  drugs in diseases of.... 167
  feeding and care of.... 237
  public school, and preventive medicine.... 1124
  school, eyesight of.... 82
Childs, Samuel Beresford. X ray treatment.... 13
Chloasma gravidarum.... 263
Chloroform, administration of.... 231
  and ether, comparative notes of.... 612
  Committee of British Medical Association, report of.... 325
Chloroma, a new case of, with leucæmia.... 1190
Chlorosis and tuberculosis.... 608
Cholecystitis, acute.... 373
Cholelithiasis.... 562
  relation of, to disease of the pancreas.... 803
  sodium oleate in the treatment of. 117
Chorea, a unique case of.... 158
  hereditary.... 568
  hydropathic treatment of.... 331
Chorioepithelioma, clinical and anatomical study of.... 562
  histology of.... 563
Chorioid, tubercle of.... 1093
Chromatophores, the character of.... 275
Chylothorax, traumatic.... 561
Circulation, influence of milk diet on.. 1138
Circumrectal infections, treatment of.. 1116
Cirrhosis, hepatic, and appendicits.... 369
Claret, a plea for.... 1055
Clark, L. Pierce. Idiopathic epilepsy in animals and man.... 1107
Clavicle, sarcoma of the.... 228

PAGE.
Cleanliness, surgical.... 709
Clearing ship for action.... 878
Cleft palate, congenital, treatment of.. 569
Clinical methods, new.... 761
  thermometer, the.... 772, 790, 936
Clubfoot, congenital, the treatment of. 902
Cobb, J. O. Milk a factor in the spread of tuberculosis.... 304
Cocainism.... 182
Coe, H. C. Appendicitis associated with disease of the ovaries.... 254
  Local treatment preparatory to operation.... 449
  Injuries of the pelvic floor.... 500
Coitus, injuries to genital tract in.... 898
Colitis, chronic.... 468
  mucomembranous, the treatment of, by colostomy.... 490
  polyposa.... 325
Colon bacillus, Endo's Method for distinguishing from typhoid bacillus.... 126
Colostomy for mucomembranous colitis 490
Commission business in medicine.... 936
  in lunacy, New York State, work of the.... 840
  respiratory diseases, appointed by New York Board of Health.... 793
Concrete concept area.... 950
Conference, intercollegiate students'.... 122
Condylomas, pointed, removal of.... 419
Conference of sanitary officers, fourth annual.... 1133
Congenital cyanosis, paroxysmal.... 67
  deformity due to intrauterine disease of spinal cord.... 186
  dislocation of the hip.... 276
  inspiratory laryngeal stridor.... 104
  pyloric stenosis.... 132
Congress of Dermatology, Berlin.... 993
  International Electrical of St. Louis.... 223
  International, of Arts and Sciences. 32, 471, 511, 700
  International Medical.... 1233
  of Military Surgeons.... 799
  of Surgery, French, report of.... 993
  on Women's Dress.... 267
  Pan-American Medical... 413, 1064, 1085, 1088, 1183
Conjunctiva, gumma of.... 1139
  inflammation of.... 137
  spring catarrh of the.... 754
Conjunctivitis, follicular, defective diagnosis of.... 1096
  of measles, bacteriology of.... 617
Constipation as a habit.... 447
  chronic, in the infant.... 137
  rectal.... 323
  treatment of by olive oil injections 808
Consumption, decrease in death rate of. 1277
  Illinois circular on.... 646
Consumptive camp in Rhode Island.... 650
Consumptives, a rotary house for.... 814
  ideal tent life for.... 974
  rules for.... 764
  trolley cars for.... 1111
Contraction, Dupuytren's.... 673
Contractions, cicatrical, of the nose, removal of.... 193
  tetanic, of the heart muscle.... 1139
Conus medullaris, disease of the.... 662
Convulsions in nephrectomized rabbits. 704
  neurosis.... 1186
  puerperal, thyreoid treatment of.. 408
Conyngham, E. F. Chronic splenic anæmia.... 441
Cooke, A. M. Pruritus ani.... 443
Copper sulphate as a water purifier. 621, 1230
Cord, umbilical, prolapse of the.... 998
Cordell, Eugene F. Medical college library.... 529
Cordier, A. H. Lithogenous obstruction of the ductus choledochus communis.... 312
Corneal therapeutics.... 1096
Corning, J. Leonard. Suppression of rotary vertigo, its bearing on the prevention and cure of seasickness.... 297
  Traumatic hæmatoma with aphasia and hemiphlegia.... 1170
Coryza, acute, a snuff for.... 406
  non-specific.... 263
Cough cure, Japanese.... 653
Cowpox of the Sierra Leone.... 1033
Craig Colony, gold medal for.... 846
Craig, R. W. Should pulmonary tuberculosis be treated at home?.... 1074
Cramp, writers' and pianists'.... 227
Cramps, muscular.... 214
Cranioclast, a new.... 706
Craniectomy in microcephaly.... 1242
Creamer, the late Dr., Brooklyn monument to.... 883
Crile, George W. Strychnine in shock. 577
Crime, safeguarding.... 1006
Crispin, Antonio M. Renal insufficiency 355
Crothers, T. D. Radiant light bath in the treatment of neuroses.... 163
Cryptorchidism, operation for.... 1041

PAGE.

- Culture media 184
- Cultures, cover glass 420
- Cumston, Charles Greene. Joint complications of erysipelas 889
  - Significance of fever during labor. 647
  - Traumatism in the ætiology of sarcoma of the bones 169
  - Uræmic ulcer of the duodenum 408
- Cuneiform, dislocation of the 124
- Curettage of the bladder 947
- Curricula of American medical colleges 145, 205
- Currier, Andrew F. The outlook in this country from a medical point of view 867
- Curvature of the spine, lateral 759
- Cutaneous eruptions in chronic appendicitis 897
- Cyanosis, chronic 326
  - paroxysmal congenital 67
- Cyclitis, infective (sympathetic ophthalmia) 468
- Cyst, ovarian, torsion of, in a child 1175
- Cysts, dermoid of ovary 801
- Cysticercus disease, prevention of 224
- Cystitis, prophylaxis of 464
- Cystoma, ovarian 618
- Cystoscopy and microscopy 322
  - simple method of 803
- Cysts of the mesentery 1256
  - of the ovary 417

D

- DALAND, Judson. The recognition of disease 726
- Dapanophobia 987
- Davis, the late Dr. William Elias B., statue to 122
- Davis, Frank T., Jr. Nocturnal incontinence of urine 109
- Deafness, chronic catarrhal, treatment of 996
  - prophylaxis and treatment of 320, 368
  - treatment of by hot air 463
- Death, apparent, the danger of 501
  - rate, Chicago's low 175
  - rate in Milwaukee 943
- Decapsulation of the kidney for the cure of nephritis 788
- Dechloridization, indications for the cure of 512
- Deciduum, the word 456
- Deeks, W. E. Carbohydrates as ætiological factors in stomach disorders 16
- Deformity, congenital 186
  - in spinal caries, modern methods for combating 1242
- Degeneration, lipomatosis as a sign of 34
- Degenerations, age, what can be done to check the progress of 492
- Delirium, grave 622
  - hysterical 234
  - of inanition 800
  - nervous shock 466
  - tremens 923
- De Lisle, Justin. The serum therapy of syphilis 1201
- Delivery in eclampsia 75
- Delusions and hallucinations 1236
- Dengue, the plasmœba of 1207
- Dentistry, progress in 562
- Dercum's disease (adiposis dolorosa) 703
  - cause and treatment of 1089
- Deterioration, physical 812
- Diabetes 756
  - insipidus, fatal 520
  - mellitus, ætiology and treatment of 777
  - mellitus and myxœdema, a case conjoining 331
  - metabolism of 757
  - oatmeal diet in 418
  - severe forms of 656
  - transitory 513
- Diaceturia in cases of gastric ulcer 280
- Diagnosis, unusual difficulties in 501
  - differential 554
    - between incipient pulmonary tuberculosis, healed cavities, and non-tuberculous fibrosis 103
  - mobility of the iris as an aid to 277
  - of incipient pulmonary tuberculosis 103
  - of typhoid fever 124
- Diarrhœa and appendicular inflammation 1226
  - epidemic 759
  - epidemic of, at Sassari 563
  - summer, the bacteriology of 138
- Diarrhœal diseases of infants 139
- Diarrhœas, the summer, of children 139
- Dietetic experiment on a large scale 117
- Dietetics, problems in 1190
- Digalene, physiological and clinical effects of 464
- Digestive juices, mixture of, with bile in digestion 948
- Digestive system and the eye 1238
- Digitalis and cardiac hypertrophy 179
- Dilatation of the stomach 757
- Diphtheria, complications of 1045
  - diagnosis of 1238
  - epidemics in Pennsylvania 796
  - heart complications in 852
- Diphtheria, laryngeal, intubation for 1093
  - primary nasal 881, 927, 969
  - school 518
  - statistics of, in Copenhagen 911
- Diplegia, spastic 186
- Dipsomania, treatment of 324
- Disease, aids to the recognition of 726
  - and poisoning, difference in effects of 1185
  - arterial tension in 1234
  - in the army, the prevention of 419
  - infectious, of the central nervous system 832
  - malignant, of the breast, x ray treatment of 1142
  - oysters as a source of 647
  - infectious, of children 65
  - malignant, of the breast, treatment of 1002
- Doctor, illegal use of word 72
  - on every ship 766
  - the, in society events 1268
- Doctor's fees in England 642
- Dodge, John L. Improvised instruments and appliances 262
- Dog days, the 27
- Douglas, Charles J. Morphinism 307
- Douglass, Beaman. An accident with the antrum trocar 1077
- Drainage, hepatic 807
- Dressing, the antitetanic 455
- Drowning, resuscitation from apparent 453
- Drug habits, alcoholism and 421
  - pathological basis of 232
  - the nascent 216
  - users, a plea for more just judgment of 422
- Drugs, action of, on the isolated intestines of animals 417
  - dangerous, the indiscriminate use of 1127
  - in diseases of children 167
- Ductus choledochus communis, lithogenous obstruction of 312
- Duodenum, ulcer of 949
  - uræmic ulcer of 408
- Dupuytren's finger contraction 673
- Dust infection 708
- Dysentery 78, 325
  - amœbic 1234
  - chronic, treated by inguinal colostomy and irrigation 879
  - infantile 138
  - of the Tropics 107
- Dysmenorrhœa, nasal 382
  - use of the stem pessary for 134
- Dyspepsia, chronic, surgical cure of 1018

E

- EAR diseases among school children 660
  - drum, injury to 224
  - pain in the 645
- Earp, Samuel E. Poisoning by illuminating gas 404
- Eberle, H. A. The plasmœba of dengue 1207
- Echinococcus fluid 658
- Eclampsia, delivery in 75, 464
  - forcible delivery in 704
  - in hydatid pregnancy 704
  - leucocytosis of 1287
  - lumbar puncture in 898, 1273
  - molecular concentration of the blood and urine in 805
  - nephrotomy for anuria in 1273
  - vaginal cæsarean section in 704, 1273
- Ectopic gestation 373
  - pregnancy 133
- Eczema, ætiology and treatment of 466
  - producing plants 429
- Edebohl's operation for nephritis 1102
- Effusion, milky, in pleural cavity 995
- Effusions, pleural, examination of 660
  - pleural, cytodiagnosis in 707
  - pleuritic, Gilbert's method of autoserum therapy in 609
  - tuberculous pleural, treatment of. 904
- Ehrlich's diazo reaction 109, 1276
- Elastic ligature, the use of 320
- Elder, John M. The treatment of mucomembranous colitis by colostomy 490
- Electric light treatment of middle ear diseases 127
- Electricity in the treatment of tuberculosis 1199
- Electrolysis in diseases of the lacrymal canal 227
  - in stricture 125
- Elmer, M. K. Passage of a tooth plate through the alimentary tract 982
- Elmer, Walter G. A case presenting unusual difficulties in diagnosis. 501
- Embolism, fatty, following bloodless reduction 993
- Empyema, thoracoplasty for relief of 1281
- Encephalitis, diffuse 1237
- Endocarditis, acute malignant 183
  - antistreptococcus serum in the treatment of 270
- Endofaradaization of the stomach 367
- Endometritis, gonorrhœal 658
  - membranous 1188

PAGE.

- Endo's method for distinguishing typhoid bacillus from colon bacillus 126
- Endotracheal medication 951
- Enteritis, mucomembranous, of traumatic origin 1041
- Enuresis, treatment for 572, 1261
  - in children 657
- Eosinophile bodies resembling Negri's corpuscles 416
- Epidemics during wars 35
- Epididymitis, gonorrhœal 273
- Epilepsy, autopsy findings in 233
  - curability of 985
  - cured without drugs 1057
  - difficult dentition in ætiology of 1190
  - idiopathic, in animals and man 1107
  - nickel bromide in treatment of 1144
  - relation of, to eye disease 277
  - treatment of 1142
- Epithelioma in women 711
- Erdmann, John F. Torsion of ovarian cyst in a child 1175
- Ergot in general practice 465
  - in labor, the therapeutic value of 1193
- Erysipelas, joint complications of 889
  - of face, meningitis and sepsis following 996
  - treatment of 565
- Erythema exudativa 568
- Ethyl chloride, anæsthesia with 417
- Evolutionists, a deceptive crumb for 842
- Exopthalmos, the mechanism of 804
- Extrophy, vesical, radical operation for 1042
- Exudates and transudates, examination of 997
  - cytological examination of 1186
  - pleuritic, inoscopy of 1090
- Eye and digestive system 1238
  - congenital malformations of 708
  - disease, the relation of epilepsy, chorea, etc., to 277
  - diseases, radiotherapy in 287
  - infections of, intravenous injections of corrosive sublimate in 851
  - refraction of, and the sight of colors 719
- Eyeball, operations upon the 661
- Eyes, paralysis of external recti muscles of the 784
- Eyestrain and the psychoses 277
  - effect of on the nervous system of children 137
  - sinusitis due to 613

F

- FAMILY physician's claim to a case, 68, 116
- Faradaic currents, sensibility of skin to 34
- Faradaization in infantile incontinence 125
- Fat deposits, process involved in 177
- Feet, sweating, treatment of 325
- Femur, fracture of neck of 663
- Ferguson, Jeremiah S. Aberrant thyreoid tissue 289
- Ferments, action of lecithin upon 1186
  - activity of, need of oxygen in 77
- Fever during labor, significance of 647
  - in childbed 177
  - of indigestion 759
  - of puerperium 20
  - of unknown origin 1273
- Fevers, blood pressure in 707
- Fibrils in ganglion cells 323
- Fibroma of mastoid, auricles and auditory canal 1024
  - of uterus complicated by heart and kidney disorders 1098
- Fibrosarcoma, x rays in the treatment 1179
- Fibrosis of breast, operative treatment. 373
- Filmarone, the action of 1084
- Finger joint pads 183
- Finsen, the late Niels R., the work of. 698
  - light, Röntgen rays, and radioactivity 325, 372
  - light treatment 344
- Fischer, Louis. Scarlet fever 1160
- Fistula in ano, the diagnosis and treatment of 150
- Flanagan, John. Gonorrhœa in the male 548
- Flies, tsetse, notes on 710
- Fœtus, retention of dead 368
- Food adulteration, a discussion of 845, 846
    - trials 693
  - commissioner's office, activity of 1230
  - preservation of 567
  - preservative, sodium sulphite as a. 845
  - products, imported 985
    - impure 404
  - strange articles of 552
- Fordham University 1228
- Formaldehyde, action of, on the favus microorganisms 1179
  - action of, on kidneys 1235
  - gas, danger of explosion in 611
- Formalin poisoning 416
- Formic aldehyde in the atmosphere 267
- Forsyth, Charles B. Constipation as a habit 447
- Foster, Burnside. Contract medical practice 266

PAGE.
Foster, Burnside. Crystallized wisdom 155
  Duties and functions of State boards of medical examiners...1034
Foster's, Dr., twenty-fifth anniversary.1265
Fourth of July accidents............ 119
Foot deformities due to ill fitting boots..1091
Fracture, intracapsular, at the hip joint, with complete union of the fragments 817
  of cervical vertebræ............. 903
  of jaws......................... 78
  of neck of femur................ 663
Fractures, care of.............1003, 1190
  diagnosis and treatment of...... 373
  near the wrist.................. 613
  of extremities.................. 182
  of humerus...................... 372
  of lower jaw....................1044
  of radius....................... 949
  Röntgen rays in the treatment of.. 769
Franklin, Milton. Radiotherapy......1011
Frambœsia, potassium bichromate in.. 65
French hospital, aseptic destruction of. 175
  impression of American hospitals.. 359
French, Thomas R. Forceps for the removal of adenoid growths...... 858
Fruit juices, imitation.............. 556
Fulton, Dudley. Insufficient motility of the stomach.............. 545
Fungus of tinea imbricata........... 710

GALL bladder, surgery of..........1190
  Gallstone disease, diet in........ 859
Gallstones in the common bile duct.... 572
  treatment of............130, 376, 562
Ganglion cells, fibrils in............ 323
Gangrene, pulmonary................ 463
  pulsating, of the lung........... 903
Garlic as a cure for tuberculosis and lupus 662
Gastric dilatations, acute............1243
  examinations in elderly persons.. 752
  hæmorrhage, ætiology of........ 901
  hæmorrhage, fatal............... 75
  motor function.................. 225
  tumors at the menopause........ 368
Gastrocnemius, sesamoid bone in the.. 946
Gastroenterostomy 1277
  for non-malignant affections of the stomach 280
  volvulus following...............1047
Gastrotomy, osteoplastic, for stricture of the œsophagus............. 901
Gastroptosis and dilatation of the stomach 324
  surgical treatment of............ 756
Gems, the therapeutics of............ 505
Genital sores, the management of.... 337
Genitourinary surgery, recent progress in 277
  work in Mount Sinai Hospital.... 37
Genu recurvatum.................... 949
German orthography................. 507
Gestation, ectopic.................. 373
  tubal, the natural history of...... 999
Gilbert, John. Treatment of insomnia. 934
  Device for the application of dry hot air.......................1244
Gilchrist, Harry L. Röntgen rays in the treatment of fractures.... 769
Gingivitis, interstitial............... 421
Gingivostomatitis of pregnant women..1126
Gland, mammary, clinical notes on.... 228
  parotid and lacrymal, enlargement.1239
  parotid, inflammation of, in pneumonia 321
  prostate, senile hypertrophy of... 246
Glands, salivary, tuberculosis of...... 609
  tuberculous, serum therapy for...1089
Glandular fever, a severe form of.... 274
Glaucoma, diagnosis and treatment of.1096
  remedy for......................1175
Glycosuria, alimentary, in diseases of the liver...................... 563
Glycuronic acid formation in man.... 994
Goitre, arsenic and phosphorus in..... 655
  exophthalmic, serum treatment of. 520
    role of thyreoid gland in....1253
    sodium salicylate in........ 694
    thyreoidectomy for.......... 571
Goldspohn's operation for displacement of uterus....................... 225
Gonorrhœa in the male.............. 548
  specific drugs for the treatment of. 516
  treatment of............278, 475, 900
Gonorrhœal endometritis............ 658
  epididymitis 273
  phlebitis 177
  stomatitis 224
Gordon, Alfred. Functional nervous diseases from a medicolegal standpoint 1178
  Role of thyreoid gland in exophthalmic goitre................1253
Gout, ætiology and pathology of......1140
  infective element in............. 279
  prevention of...................1140
  treatment of................406, 1080
Graef, Charles. A case of anophthalmus 452
Graham, Edwin E. Non-susceptibility of the new-born to measles..... 544

PAGE.
Griffith, Frederick. Self-retaining catheter holder and perineal drainage tube supporter.......1048
Groat, William A. Treatment of insomnia 836
Grocco's triangle, significance of, in the diagnosis of unilateral pleurisies 753
Gun fire, effect of.................. 469
Gunne, Evelyn. Before the operation.. 287
Gunter, Guilford H., death of........ 989
Gurney, Samuel. Surgery under difficulties in East Africa.......... 357
Guthrie, J. A. Clearing ship for action 878
  Unhealthfulness of noise........ 60
Gynæcological examinations.......... 135
  surgery, the streptococcus in...... 474
Gynæcology, the higher............. 26
  local treatment in.............. 722
Gyromele, a danger in the........... 219

HÆMATOLOGY, Tallqvist test in... 853
  Hæmatoma, intrapelvic......427, 1197
Haematomas, traumatic, with aphasia and hemiplegia................1170
Hæmatoporphyrinuria 759
Hæmaturia a symptom of infantile scurvy 329
  due to Bilharzia hæmatobia...... 900
  following administration of quinine 76
  in nephritis.................... 946
Hæmolytic action of corrosive sublimate 513
  serum, action of radium upon.... 127
Hæmophilia and its treatment........1047
Hæmoptysis, cause of................ 127
Hæmorrhage, accidental............. 952
  during parturition............... 124
  from the bowel in malarial disease. 820
  gastric, ætiology of............. 901
    fatal 75
  gastrointestinal, in the newborn.. 751
  internal 282, 1277
  intraocular 1096
  medical treatment of........519, 808
  metabolic changes due to........ 229
  post partum, treatment of......1054
  pulmonary 613
Hæmorrhages, hæmorrhoidal 454
  ovarian 125
  uterine 658
Hæmorrhagic disease of the newly born. 246
Hæmorrhoids, ointment for.......... 406
  treatment of.........80, 184, 229, 467
Hæmostasis in liver operations....... 564
  prophylactic, before trephining.... 464
Hæmostatic, a new.................. 75
Halsted, William S. Yale University annual address in medicine.... 32
Hamaker, Winters D. Address in surgery 713
Hammond, the late Surgeon-General... 215
Hartman, G., and Weirick, C. Skin grafting, using amputated extremities as a supply of skin..1223
Hartsock, Frederick M. The dysentery of the tropics................ 107
Harvard medical school, the new buildings of...................... 848
Hay fever and rose cold, antitoxine for. 813
  quinine in...................... 276
Hayward, E. H. The fly as a carrier of tuberculous infection.......... 643
Headache from traumatic hæmatoma..1170
  in relation to diseases of the nose and nasopharynx.............. 636
Health bureau, relation of physician to 1014
Heart and blood vessels, diseases of, Schott method of treating.....1098
  and lung disorders, respiratory education in the treatment of.. 681
  congenital anomaly of........... 274
  disease, diet in................. 279
    and obstetrics............... 515
  foreign bodies in the............1007
  massage of...................... 272
  morphine in diseases of.......... 464
  murmurs, significance of......... 516
  muscular attachments between the auricle and ventricle of........ 897
  muscle, tetanic contractions of...1139
  palpation of.................... 226
  stimulant, digitalis as a........ 698
  suture of..................177, 1047
  syphilis of.....................1236
Hebotomy 514
  subcutaneous 1137
Hehner's test for formalin in milk.... 559
Hemiplegia, a clinico-pathological study of 185
Henoch's purpura...................1142
Henry, J. Norman. Uncinariasis..... 59
Hepatic drainage................... 807
  pulsation 34
Hepatoptosis, treatment of.......... 997
Hereditary abnormity of the little finger 642
Heredity and environment, influences of upon diseases and defects of children 374
Hermann, Brehmer, portrait and sketch of 3

PAGE.
Hernia, congenital diaphragmatic..... 608
  diaphragmatic 423
  epigastric 608
  in infancy and childhood........ 331
  infantile, the operative treatment of 807
  inguinal, anatomy and radical cure of 566
  of the ureter................... 274
  operative treatment of.......... 708
  ovarian, in little girls..........1034
  postpoperative 231
  radical cure of................. 852
  radical operation for............ 34
  ventral 276
  visceral, wounds of the abdomen with 610
Herniæ of children................. 519
Hernial ring, internal, abdominal pain from irritation at............ 38
Heroinomania 754
Herpes zoster and cancer............ 746
Hicks, Everett S. Improvised instruments and appliances.......... 262
High frequency currents, physiological action of..................... 514
Hill, R. S. Menstrual disorders...... 594
Hip, dislocation, congenital.......... 276
  dislocation, congenital, bloodless reduction of.................. 481
  joint, intrascapular fracture at... 817
Hodgkin's disease, a case of......... 913
Hookworm infection, anæmia due to.. 79
Horsley, J. Shelton. Surgical shock..1220
Horwitz, Orville. Senile hypertrophy of the prostate gland.246, 292, 341
Hospital designs, World's Fair medal for 1135
  grounds, the adornment of........ 601
  management 1267
  museums 1083
  patient over forty years.......... 764
  Saturday and Sunday............1225
  staffs, public, civil service for.... 986
HOSPITALS:
  Bellevue, a heavyweight at...... 556
  Beth Israel, New York.......... 508
  Bethesda, Chicago.............. 799
  Boston Emergency and General...1097
  Boston Floating.............72, 606
  Emergency and General, Boston, annual report of.............. 702
  French, New York, formal opening of 1132
  German, Chicago, bequest to...... 942
  German, Philadelphia, alterations in 173
  Howard, Philadelphia, report of. 797
  Johns Hopkins.....285, 512, 679, 750
  Long Island Throat Hospital and Eye Infirmary, annual meeting of 794
  Lying-In, New York, annual report of 1131
  Manhattan Eye and Ear, a new building for................. 940
  Michael Reese, Chicago......558, 847
  Municipal, Philadelphia, improvements in the administration of.. 748
  Naval, a new outdoor............ 628
  New York State, for Crippled and Deformed Children........569, 1228
  New York State, for Incipient Tuberculosis 74
  Polyclinic, Philadelphia, work of the 796
  St. John's Guild, Floating....69, 70, 460, 1132
  St. Joseph's, Baltimore.......... 366
  St. Luke's, New York, annual report of...................... 794
  St. Mary's, Brooklyn............ 940
  Samaritan, Brooklyn, incorporation of 1180
  Scottish, Chicago............... 943
  Sea Side, of St. John's Guild...... 30
Hot Springs of Arkansas, radioactivity of the waters of the.......... 790
Hot air, dry, device for the application of, in the treatment of disease..1244
Huber, John B. The economics of tuberculosis 686
  the many-sided physician........ 792
Hughes, Helen. Some points in obstetrics 202
Humerus, fractures of.............. 372
Hydrastis in treatment of catarrhal conditions 949
Hydrocele, cytodiagnosis in.......... 752
Hydrocephalus, chronic internal...... 324
Hydromeningocele, surgical treatment of 416
Hydronephrosis, intermittent......... 512
  rupture of, simulating appendicitis. 179
Hydrotherapy, present status of...... 465
Hygiene of the barber's shop......... 114
  of the laundry..................1141
Hyperæmia, congestive, in the treatment of articular disease...... 752
Hyperalgesia, zones of, from gunshot wounds in the head.......... 751
Hyperchlorhydria 997

PAGE.

- Hypernephroma as a result of traumatism 451
- Hyperpyrexia 79
- Hypertrophies and inflammations about the urinary meatus 379
- Hypertrophy, cardiac 179
  - prostatic 79, 180, 949, 1198
  - senile, of the prostate gland. 247, 292
- Hypodermoclysis in nephritis, effects of 947
- Hypopepsia, formula for 887
- Hypernephroma 1238
- Hyrtl's exsanguinated renal zone in operations 1111
- Hysterectomy 520, 1278
  - abdominal, new methods of 850
  - after effects of 1045
- Hysteria and neurasthenia 415
  - mental manifestations of 852
  - pathology of 36
- Hysterical delirium 234

- ICE, pure, the supply of 238
  - selling, on Sunday 71, 220
- Idiopathic priapism 69
- Illegal practitioner fined 71
- Illuminating gas poisoning 129
- Immigrant of defective physique 67
- Immunity 598, 615
  - and blood affinities 669
  - new facts and theories regarding .. 603
  - theories of 610
  - theory and practice of 644, 721
- Improvised instruments and appliances 260
- Inanition, delirium of 800
- Incipient valvular disease 132
- Incontinence of urine, infantile, treatment of by Faradaic currents .. 125
  - of urine, nocturnal, treatment of, 62, 109
  - urinary, Cathelin's treatment of .. 1033
- Incubator, an improvised 749
  - Coney Island 117
- Index catalogue, the new volume of ... 267
- Indian fevers 517
- Indicanuria complicating typhoid fever 761
- Indigestion, fever of 759
  - remedy for 742
- Indol in the fæces, determination of ... 224
- Inebriates; should they be punished by death for crime 233
- Infant feeding 468
  - feeding, artificial 136
  - mortality in Philadelphia 119
- Infantile asthma, remedy for 65
  - mortality, causes and prevention of 1240
- Infantilism 659
  - and senility 359
- Infants, overlying of 1007
- Infection, bothriocephalus 1279
  - cerebral 423
  - dust 708
  - influence of anæmia on 1138
  - puerperal 468
  - streptococcal 1000
  - tuberculous, the fly as a carrier of 643
- Infections, circumrectal, treatment of. 1116
  - local, iodine and mercury to combat 37
- Infectious bile, remote consequences of 80
  - diseases of central nervous system 832
  - diseases of children 65
- Inflammation, acute, of middle ear 948
- Influenza and acute articular rheumatism 496
  - and appendicitis 276
  - and appendicular inflammation ... 1179
  - in children 568
- Ingals, E. Fletcher. Home treatment of pulmonary tuberculosis 54
- Inhaler, Bennett's, attachment to, for pharyngeal and tracheal administration of anæsthetics 1214
- Injections of corrosive sublimate in the treatment of puerperal sepsis ... 802
  - intravenous, of corrosive sublimate, in infections of the eye 851
  - intravenous, radium salicylate in .. 65
  - mercurial 1041
  - of mercury salicylate in the treatment of syphilis 778
  - of olive oil, for constipation 808
  - subcutaneous, of saline solution, in various psychoses 887
- Injury, external, legal aspect of the absence of 1094
- Inoscopy, the value of 657
- Insane, forcible restraint of 1140
  - responsibility of the, for criminal acts 804
- Insanity, moral 228
- Insomnia of the aged 662
  - treatment of 836, 884, 934
- Institute, the Maraglino 842
- Institution, Spanish-American educational 649
- Insufficiency, aortic, due to injury 802
- Intermittent claudication 1141
- Internal secretions 1025
- Interne, officiousness of 825

PAGE.

- Intestinal anastomosis 566
  - atony, tobacco in 214
  - gases 513
  - obstruction 131, 416, 515, 567, 711, 1240
    - after laparotomy 608
    - in children 329
    - postoperative 1199
  - occlusion in infancy and childhood 1284
  - paresis 514
  - perforation 181, 504, 603, 1243
- Intestine, exclusion of 855
  - tuberculous stenosis of the 657
- Intestines, blood in contents of 564
  - isolated, of animals, action of drugs on 417
- Intraperitoneal shortening of round ligaments 177
- Intratracheal growths, aberrant thyreoid tissue and its relation to .. 289
- Intrauterine death 1081
  - death, early, with undue delay in the occurrence of abortion thereafter 1071
- Intussusception, acute intestinal 39
  - lumbrici as a cause of 1082
- Inventions, medical and surgical, the patenting of 456
- Iodine and mercury to combat local infections 37
  - blistering from tincture of 263
- Iodism, prevention of 503
- Iron, perchloride of, in blood poisoning 1144
  - therapeutical virtues of 1238

- JAPANESE women, the physical status of 171
- Jarecky, Herman. Adenoids in infants 309
- Jaundice following administration of quinine 76
- Jaws, fracture of the 78
- Jejunostomy, applications and technics of 513
- Jelks, John L. Circumrectal infections 1116
- Joint complications of erysipelas 889
  - interphalangeal, crushing injuries involving one articular surface of 162
  - shoulder, disability of 930
  - shoulder, injury of 561
- Joints, diseases of, and their treatment by massage 826
- Jones, Harold W., and Allison, Nathaniel. Disability of the shoulder joint 930
- Journal of urology, a new 170
- Journals, medical, consolidation of 649, 653

- KASSABIAN, MIHRAN K. The value of stereoscopic skiagraphy 1249
- Kefyr, the therapeutical indications of. 800
- Keller, Miss Helen, a modern miracle 29
- Keller, W. L. Surgical treatment of bunions and hallax valgus 741
- Keloid, cicatricial 276
- Kennedy, John M. Our relation to one another 549
- Keratitis, annular, ætiology of 417
- Kernig's sign in sciatica 76
- Keyes, Edward L., Jr. Bacteriuria 397
- Kidney, decapsulation of, for the cure of nephritis 788
  - diagnosis of surgical diseases of .. 569
  - divisions of, in relation to operations 1111
  - exclusion of 273
  - floating 125, 415
  - prolapsed, the gynæcological importance of 854
  - single 40
  - stone in 1094
  - tuberculosis of 378
  - tuberculosis of, nephrectomy for .. 998
- Kidneys, action of formaldehyde on ... 1235
  - drugs irritant to 1092
- King, Alfred. Placenta prævia 548
- King, Willis P. Do we progress? 552
- Kings County Insane Asylum 142
- Knee, congenital partial relaxation of. 949
- Knopf, S. A. Hermann Brehmer 3
  - The public school and tuberculosis 433
  - Ventilation of the subway 937
  - Woman's duty toward the health of the nation 865
- Knott, John. The dog days 27
  - The therapeutics of gems 505
- Kohn, Samuel. Congenital inspiratory laryngeal stridor 104
- Koplik's spots in the diagnosis of measles 39

- LABOR, central rupture of perinæum during 1146
  - "rigid os" in 217
  - rupture of trachea during 1146
  - significance of fever during 647
  - therapeutic value of ergot in 1193
- Labyrinth, necrosis of 946

PAGE.

- Lacerations of cervix uteri ... 423, 426, 427
  - of pelvic floor, preventive treatment of 472
  - of perinæum 278, 472
- Lacrymal canal, electrolysis in diseases of 227
- Lameness, intermittent 612
- Langdon, H. Maxwell, and Posey, William Campbell. Non-operative treatment of squint; the Worth amblyoscope 1065, 1118
- Langerhans, islands of, relation of to diseases of liver 1197
- Lankford, J. S. Public school children and preventive medicine 1124
- Laparotomies, six in eight months, with recovery 946
- Laparotomy, suprapubic horizontal incision for 898
  - technics 367
- Laplace, Ernest. Removal of internal hæmorrhoids by excision 1212
- Laryngeal stridor, congenital inspiratory 104
- Laryngitis, chronic, some phases of ... 277
  - streptococcal, primary 38
- Larynx, cancer of 950, 1046
  - lymphatics of 81
  - malignant diseases of the 613
  - posttyphoid perichondritis of 613
  - tuberculosis of 1238
- Law on use of word doctor 72
- Lazear, the late Dr. J. W., memorial tablet to 703
- League, white, of Philadelphia 122
- Lecithin, action of, upon ferments 1186
- Leishmann-Donovan body 183, 710
- Lentigo: unilateral distribution 197
- Leprosy, Hutchinson's opinions on 897
  - in France 751
- Lerch, Otto. Arthritis defromans of the spine (spondylitis deformans) 387
- LETTERS TO THE EDITOR:
  - Adams, J. Howe. The patenting of surgical instruments 712
  - Baker, Henry B. Is milk a factor in the spread of tuberculosis? .. 425
  - Beers, Nathan T., Jr. Idiopathic priapism 188
  - Crothers, T. D. American Medical Society for the Study of Alcohol and Other Narcotics 424
  - Cygnus. Standing of Philadelphia's medical schools 618
  - Gayler, W. C. Quackery 471
  - Groat, Wm. A. The copper treatment of water 712
  - Klotz, Julius E. Sanatoria for consumptives 1145
  - Knopf, S. A. The National Association for the Study and Prevention of Tuberculosis 45
  - Kollock, Charles W. Nurses' training schools 235
  - Larsen, R. L. Nurses' training schools 235
  - Logan, O. T. The identification of the hook worm 470
  - Masten, H. Boyd. Sanatoria for consumptives 1282
  - Norris, George W. Blood pressure and the sphygmomanometer 92
  - Pursell, H. Criminal heredity ... 569
  - Pitfield, Robert L. Gastrointestinal manifestation of influenza 327
  - Rodman, John. Treatment of varicose veins and ulcers 1145
  - Rose, Achilles. Servetus and Harvey 470
  - Rosewater, Nathan. The plaster abdominal belt 327
  - Sajous, Charles E. de M. Internal secretions 1097
  - Scott, Lucy P. Nurses' training schools 47
  - Shattuck, Frederick C. Urine as a disseminator of typhoid fever 327
  - Shively, Henry L. The physician in general literature 470
  - Urinary excretion of the horse ... 139
  - Vondal, J. L. Drug addiction 569
  - Voorhees, I. W. The laity versus the profession 809
  - Woodruff, L. Treatment of prolapsus of the funis 1001
- Leucæmia, myelogenous 229, 374
  - Röntgen ray treatment of 78, 660, 752, 1279
  - splenomedullary 950
- Leucæmic blood, fibrinogen in 562
- Leucanæmia 82
- Leucoanæmia in malaria 705
- Leucocyte counts 132
- Leucoderma, syphilitic 897
- Levy, Robert. Relation of diseases of the stomach to affections of the mouth, nose and throat 1173
- Lewis, Frank N. Paralysis of external recti muscles of the eyes 784
- License examinations, the unification of 987
  - law, Missouri State 175

PAGE.

- Life assurance, insanity and epilepsy in relation to.................. 902
  - preserver cork, iron bars in...... 797
- Light therapy, treatment by.......... 854
- Lightning stroke on a large scale..... 29
- Linear nævi.......................... 465
- Linotype machine as a source of poisoning 168
- Lipoma in the inguinal region........ 610
- Lipomatosis as a sign of degeneration 34
- Literary expression.................. 670
- Literature, contributions by physicians to 334
- Lithiomercuric iodide................ 38
- Lithogenous obstruction of the ductus choledochus communis......... 312
- Liver, abscess of.................... 707
  - acute yellow atrophy of......... 704
  - alimentary glycosuria in diseases of 563
  - cases 97
  - cirrhosis of....352, 515, 756, 1234, 1274
  - diseases of, relation of Islands of Langerhans to...............1197
  - diseases of, significance of urea and ammonia in the diagnosis of 1042
  - operations, hæmostasis in........ 564
  - primary carcinoma of the........ 571
  - in tuberculosis.................. 321
- Local treatment preparatory to operation 449
- Locomotor ataxia, an encouraging case of 186
  - hereditary 513
  - treatment of.................81, 1263
  - with tremor..................... 232
- Lofton, Lucien. Improvised method of operating for variocele........ 983
- Loveland, Bradford C. Age degenerations 492
  - Treatment of insomnia.......... 884
- Lumbrici as a cause of intussusception.1082
- Lunatic, the "harmless"............ 410
- Lung and heart disorders, respiratory education in the treatment of.. 681
  - malignant tumors of the........1093
  - primary cancer of..............1187
  - pulsating gangrene of........... 903
- Lupus vulgaris, treatment of......951, 1273, 1278
- Lydston, G. Frank. Civil service for public hospital staffs.......... 986
  - Malingering among criminals..... 601
  - Should the physician patent his ideas? 457
  - Syphilis coutracted by coitus..... 694
  - Tattooing among criminals....... 842
  - Technique of prostatectomy...... 249
- Lymph follicles, conjunctival........1096
  - nodes, clinical topography of..... 517
- Lymphagogues in œdema, action of.... 946
- Lymphatic system, surgical physiology of 853
- Lymphatics of the larynx........... 81
- Lymphocytes of the blood, the role of. 616
- Lymphosarcoma (pseudoleucæmia).615, 1275

- MABBOTT, J. MILTON. List of requisites for obstetric cases at home 1194
- Macdonald, G. Childs. Chronic dysentery treated by inguinal colostomy and irrigation........... 879
- Magaw, Alice. Eleven thousand anæsthesias 919
- Malaria, antitoxine treatment of......1278
  - hæmorrhage from the bowel in.... 820
  - latent 516
  - leucoanæmia in................. 705
  - other causes of, than mosquitoes..1044
  - prophylaxis of.................. 709
  - theory to account for the virulence of 614
- Malarial and typhoid fevers caused by mosquitoes 321
  - cachexia, chronic, an incomplete report of two cases of.......... 917
  - fever in Suez................... 512
    - malignant tertian.......... 131
    - use of methylene blue in the treatment of.............1100
  - infections, latent and masked.... 902
- Malignant disease, post operative treatment of......................1003
  - diseases of the breast, treatment of 1002
  - growths, action of x ray upon....1002
    - ætiology of................. 708
    - treatment of, with quinine...1264
  - neoplasms, ætiology of........... 124
  - new growths, the infectious nature of 389
- Malingering among criminals......... 601
- Malpractice, criminal.............557, 941
- Malta fever......................... 469
- Manley, Thomas H. Intracapsular fracture at the hip joint...... 817
- Manuscript stammering.............. 117
- Maretin, antipyretic action of........ 177

PAGE.

- Marmorek's antituberculous serum in the treatment of pulmonary tuberculosis 1151
- Masten, H. Boyd. Ideal tent life for consumptives 974
- Mastitis, bloody milk preceding...... 117
- Mastoid, auricle, etc., fibroma of......1024
- Mathewson, H. S. Treatment of varicose veins of the leg..........1079
- Maxillary sinus, malignant tumors of.. 370
- Mayo, Caswell A. Inaccuracy in clinical thermometers............. 772
- Mays, Thomas J. The vagus reflex.... 437
- McBrayer, L. B. Cirrhosis of the liver 352
- McCormick Memorial Institute, donation to.......................1183
- McCrae, Thomas. Hospital museums..1083
- McGraw, Theodore A. The correlations of cancer and sarcoma with other tumors 743
- McKelway, John Irvine. Lentigo..... 197
- McKillip, O. L. Mitral regurgitation.. 625
- McMurtry, L. S. Cysts of the mesentery 1256
- McWilliams, Clarence A. Dupuytren's finger contraction............ 673
- Measles, bacteriology of..........418, 419
  - bacteriology of the conjunctivitis of 617
  - cause of........................ 659
  - Koplik's spots in the diagnosis of.. 39
  - non-susceptibility of the new-born to 544
  - polymyositis and polyneuritis in.. 514
  - prevention of...................1279
  - temperature curve of............ 79
  - without eruption................1280
- Medical attention, free.............. 462
  - career, financial status of........ 210
  - college library.................. 529
  - education 36
  - education in Ohio............... 889
  - exhibit for Chicago at World's Fair 221
  - history of Virginia.............. 894
  - inspection of schools........363, 1230
  - inspectors for public schools...... 175
  - licentiates, New Jersey.......... 607
  - mission for Kansas City, Mo...... 121
  - outlook in this country.......... 867
  - practice, contract............... 266
  - practice, definition of........... 910
  - schools, night..................1006
  - schools of Kentucky, rules concerning 860
  - science, modern conceptions and methods of................... 667
  - statistics, international military..1127
  - students, the behavior of........ 265
- Medicine, age and youth in.......... 277
  - commission business in.......... 936
  - in Scotland, popular............ 526
  - newspaper, co-operation in.......1128
  - preventive, and public school children 1124
  - progress in..................... 552
  - rational, in China.............. 219
  - royal interest in................ 187
  - proprietary 696
- Melancholia 1278
  - during pregnancy............... 272
- Menière's disease, operative treatment of 1046
- Meningitis and sepsis following erysipelas of the face............ 996
  - basal, cause of.................. 521
  - cerebrospinal, clinical features of.. 568
    - diagnosis, prognosis, and treatment of................. 372
    - report of six cases of........ 756
  - Kernig's sign in the diagnosis of.. 851
  - purulent, operative rules for the cure of...................... 993
- Menopause, gastric tumors at the..... 368
- Menstrual disorders, some causes of.. 594
  - period, bathing during the....474, 789
- Menstruation, disturbances of, and their significance............. 820
  - influence of ovarian implantation on 134
  - of wet nurse, effect of........... 415
  - scanty, use of the stem pessary in treatment of................ 134
  - tubal 282, 658, 910
- Mental defectives................... 517
  - overstrain at puberty........... 612
- Mercury and iodine to combat local infections 37
- Mesentery, cysts of.................1256
- Metaplasia in the stomach........... 804
- Meteorological study, a.............. 276
- Methyl alcohol, its properties, uses, and abuses 1009
- Methylene blue in secondary mucous syphilides 503
  - in treatment of variolous ophthalmia 25
- Metrorrhagia, interstitial nephritis with 801
- Mettler, L. Harrison. Neurological pitfalls 1226

PAGE.

- Meyer, Willy. Nephrotomy and ureterotomy for impacted ureteral calculus 967
- Microcephaly, artificial, in dogs...... 126
  - craniectomy in..................1242
- Micrococcus rheumaticus, cultural characteristics of................1240
- Microorganisms, pathogenic, the life history of.................... 853
- Middle ear, acute inflammation of.... 948
  - acute suppuration of............ 614
  - diseases 127, 614
  - physiology of.................. 325
  - tuberculosis of.................1092
- Milk a factor in the spread of tuberculosis 304
  - adulterated, arrest for selling.... 71
  - bacteriological examination of....1230
  - best, for artificial infant feeding. 136
  - bottles, the sterilization of....... 269
  - city, carefully inspected......... 268
  - dairy, contamination of.......... 136
  - formaldehyde in................ 521
  - fresh, the necessity of obtaining. 854
  - Hehner's test for formalin in.... 559
  - mixtures, modified, ready methods of formulating................ 587
  - problem, the....................1176
  - question in Chicago...........73, 123
  - safe preservative for............ 382
  - secretion, persistent............ 416
  - supply 518
- Milks, modified, long and short methods of calculating................ 971
- Mind cures.......................... 420
- Miracle, a modern................... 29
- Misocainia in medicine..............1142
- Missouri physicians desire to incorporate 121
- Mitral regurgitation................ 625
- Mole, hæmatomatous................ 125
- Moore, Alfred. Origin of the vermiform appendix................ 159
- Moore, Albertus Adair. Placenta prævia centralis 258
- Montgomery, E. E. Disturbances of menstruation 820
- Morphine in cerebral injury.......... 131
- Morphinism: its symptomology....... 307
- Mortality, postdischarge, among the patients of the Adirondack cottage sanitarium 1044
- Moser serum in the treatment of scarlet fever 901
- Mosquito reduction, the sanitary policy of 761
- Mosquitoes a cause of malarial and typhoid fevers.................. 321
  - at League Island............... 557
  - a pest of....................... 220
- Mucous membranes, eruptive affections of the....................... 600
- Müller, Dr. Auguste F., resolutions on the death of.................. 989
- Multiple sarcomata of the subcutaneous tissue 385
- Mumps, the complications of......... 649
- Mundorff, George Theodore. Hereditary abnormity of the little finger... 642
- Municipal bacteriological laboratory, Philadelphia 605
- Muscarine and pilocarpine, action of on the heart................. 758
- Muscles, inflammation of............1095
- Muscular activity, the influence of, upon distribution of the blood...... 178
  - atrophy, progressive............ 323
- Mutation, the theory of............. 130
- Myasthenia, pseudoparalytic.......... 657
- Myelitis, acute, unusual forms of.... 583
- Myocardial disease, chronic, recognition and treatment of............. 323
- Myocarditis in a child............... 808
- Myocardium, disease of the.......... 706
- Myokymia, primary.................. 80
- Myopia, treatment of...............1096
- Myositis, infective..................1095
- Mystic shrine, physician imperial potentate of the................ 270
- Myxœdema and diabetes mellitus, a case conjoining.............. 331

- NARCOSIS, position of arms in...... 367
- Nasal polypus, origin of........1046
- Nasal saw, the use of................ 403
- Nascent state, the.................. 703
- Naval medical officer, resignation of, refused 702
- Navy, medical department of.........1081
  - medical officers of the.......... 621
- Navy Yard, Brooklyn, unsanitary conditions at.....................1132
  - League Island, smallpox at......1039
- Necrosis of the labyrinth............ 946
- Negri's bodies in rabies..........371, 1234
- Neoplasms, malignant............... 124
- Nephrectomy for tuberculosis of the kidney 378, 998
- Nephritic complications, minor....... 321

PAGE.
Nephritis, acute and chronic, treatment of 1102
  chronic, the treatment of.... 856
  effects of hypodermoclysis in.... 947
  hæmaturia in.... 946
  high tension in.... 421
  interstitial, with metrorrhagia.... 801
  surgery of.... 788
Nephropexy, a new method of.... 705
Nephrotomy and ureterotomy for impacted ureteral calculus.... 967
Nerve anastomosis as a cure for facial paralysis 178
  blocking to prevent amputation.. 662
Nerves, division of.... 757
  suture of.... 571
  the surgery of.... 571
Nervous diseases, uncommon forms of. 228
  diseases, functional, from a medico-legal standpoint.... 178
  diseases, syphilitic, mercury in treatment of....1280
  system, central, unusual forms of infectious disease of.... 832
  system of children.... 137
Neuralgia, facial, local hydroelectric applications in....1175
  radiotherapy of.....114
  salicylic ion in.... 214
Neurasthenia and hysteria.... 415
  cold baths in.... 851
  in movable kidney, the origin of.. 803
Neuritis in pregnancy and the puerperium 716
  multiple, of telluric origin.... 314
  multiple, unusual forms of.... 187
  retroocular 1096
Neurofibromatosis 1241
Neurological pitfalls....1226
Neurology, physiological principle in the study of....1238
Neuroses, the radiant light bath in the treatment of.... 163
Newmayer, S. W. Relation of the physician to bureau of health....1014
Newspaper advertisements, repulsive.. 939
  co-operation in medicine....1128
  medicine 623
Niles, H. D. Surgical diseases of the sigmoid 1257
Nitric acid, danger from.... 460
Noise, unhealthfulness of.... 60
Norris, George W. Differential diagnosis between incipient pulmonary tuberculosis, healed cavities, and non-tuberculous fibrosis.... 103
Nose and throat, affections of, due to stomach disease....1173
Nostrom, Gustaf. Diseases of the joints and their treatment by massage. 826
Nurses' Association, Pennsylvania State, circular letter sent out by. 798
  for public schools, Philadelphia...1181
  training schools.... 66
Nydegger, James A. Trachoma.... 538
  Treatment of varicose veins of the leg 1032, 1078

OBITUARIES:
  Cushman, William Farren, M. D., of New York....1130
  Drown, Thomas S. K., M. D., of South Bethlehem, Pa....1036
  Lambert, Edward W., M. D., of New York.... 171
  Price, Mordecai, M. D., of Philadelphia 891
  Pryor, William R., M. D., of New York 1229
  Riegel, Franz, M. D., of Giessen.. 554
Obstetric cases at home, list of requisites for....1194
  experiences 373
Obstetrical charities in St. Petersburg. 322
Obstetrics and gynæcology, fundamental problems in....1189
  and heart disease.... 515
  contemporary American works on. 407
  some points in.... 202
  surgical aspects of.... 229
Obstruction, intestinal, after laparotomy 608
    congenital 1240
    due to adherent salpinx.... 416
    following appendicitis operations 515
    in children.... 329
  postoperative 1199
    surgical treatment of.... 711
    treatment of.... 567
  lithogenous, of the ductus choledochus communis.... 312
  nasal, removal of, by the plastic method 193
  renal, with anuria, and its treatment 612
Occlusion of the lacrymal canal.... 137
Œdema, lymphagogues in.... 946
  pathogenesis and treatment of.... 854
  physiology and pathology of.... 80

PAGE.
Œsophageal diverticulum.... 709
  stricture, gastrostomy in.... 571
Œsophagoscopy, aims, progress, and significance of.... 177
  and bronchoscopy....1043
Œsophagus, dilatation of, due to cardiospasm 731
  impermeable stricture of the.... 368
  intrathoracic operations upon.... 75
  stricture of the, osteoplastic gastrotomy for.... 901
Ointments, their use and abuse.... 420
Oliver, James. Missed abortion....1071
Onyalai 603
Oophoritis, chronic, pathological history of.... 272
Operation, before the.... 287
  local treatment preparatory to.... 449
Operations, aseptic, surgical, requirements for.... 521
  at the Albany Hospital.... 467
  secondary 275
Ophthalmia, prevention of....1137
  sympathetic 274
  variolous, methylene blue in the treatment of.... 25
Ophthalmology according to newspapers 238
  what should the general practitioner know of....1217
Opotherapy in typhoid fever....1137
Organism, a new.... 373
Organization in Texas.... 646
Orientation, lateral auditory.... 850
Osborne, O. T. Arteriosclerosis.... 349
Osler, Dr. William, appointed to regius chair of medicine in Oxford.362, 366, 572
  memorial building for.... 945
Osmology, clinical.... 320
Osteoarthritis of the spine....1091
Osteoarticular affections.... 320
Osteosarcoma of the long bones, diagnosis of.... 520
  operation for.... 572
Otitis media, acute, treatment of.... 76
  chronic catarrhal, treatment of... 996
    complications of.... 375
    purulent, iodoform solutions in 609
    suppurating 467
    non-suppurative 1045
  tuberculous, diagnosis of.... 226
Otohæmatoma, bilateral, in an insane woman 610
Otology, conservatism in.... 324
  obligatory teaching of.... 513
Otorrhœa, chronic purulent, mastoid operation for the cure of.... 632
  chronic, remedy for.... 454
Ovarian cystoma.... 618
  cyst, torsion of, in a child....1175
  hæmorrhages 125
  hernia in little girls....1034
  implantation, influence of, on menstruation 134
  pain, cause and treatment of.... 952
Ovaries, disease of, with appendicitis.. 255
  operations on.... 134
  papillary cysts and tumors of, 523, 1286
  surgery of.... 78
Ovariotomy, bilateral, in pregnancy... 464
Ovary, cancer of.... 562
  dermoid cysts of.... 801
  large cyst of.... 417
  prolapse of, an operation for the cure of.... 805
Oysters as a source of disease.... 647
Ozæna a cause of gastritis.... 280
  contribution to the study of.... 995
  serum therapy of.... 565

PADS, weighted, for use in abdominal work 367
Pædiatrics, therapeutics of.... 568
  and its relation to other specialties 1282
Paget's disease.... 617
Palate, congenital cleft, the treatment of 569
Panama, American physicians at.... 800
  Canal appointments, examinations for 1183
    work for physicians on....32. 143
    zone, medical service of.... 984
  climate and health conditions of.. 668
  Philadelphia nurses for....1133
Pan-American Medical Congress...462, 848, 1064, 1088, 1183, 1229
Pancreas, cancer of the.... 40
  pathology of the.... 705
  surgery of the.... 181
Pancreatitis, acute.... 374
  acute, with gallstones.... 569
  chronic 130
  various forms of....1141
Panophthalmitis, bacteriology of.... 422
Paralysis, bulbar.... 326
  due to ptomaine poisoning.... 659
  facial 185
  general, lesions in.... 903

PAGE.
Paralysis in children....1095
  Landry's, in children.... 139
  of external recti muscles of the eyes, tabetic in origin.... 784
  traumatic facial, cured by nerve anastomosis 177
Paraphimosis in a young girl....1278
Parasitical associations.... 835
Parasitology in the Philippines.... 743
Paratyphoid fever.... 514
Paresis, general, hypersecretions in.... 655
  general, recognition and management of.... 422
  intestinal 514
  postoperative intestinal, the prevention of.... 814
Parinaud's disease....1150
Paris letter....1224
Park Avenue tunnel, ventilation of.... 939
Parotid and lacrymal glands, enlargement of....1239
  gland, inflammation of, in pneumonia 321
Parthogenesis and radium.... 957
Parturition, hæmorrhage during.... 124
  in absentia.... 507
Pasteur, a statue of, at Paris.... 173
Patent medicine tippling.... 478
Patenting medical and surgical inventions 456
Pathological irregularities.... 128
  suggestions 230
Patient, a privileged.... 668
Pedersen, Victor C. Attachment to Bennett's inhaler for pharyngeal and tracheal administration....1214
Pelvic and cranial measurements, uniformity in.... 472
  cavity, female, pus collections in. 812
  disorders, non-operative local treatment in.... 473
    treatment preparatory to operations in.... 473
    value of postoperative treatment in.... 474
  floor and perinæum, immediate repair of.... 905
    immediate repair of....500, 1189
    lacerations 472
  prolongation, appendicitis with... 670
  ureteral sheath, the.... 566
Pemphigus 749, 1277
Pennington, Dr. Byron Cook, presentation to.... 842
Percussion, deep, alleged fallaciousness of....1176
  notes at the mouth, auscultation of thoracic 34
  with one finger....1089
Perforation, simulated intestinal.... 504
Perforations of the uterus.... 659
  typhoid, operations for.... 659
Pericardial drainage.... 951
Pericarditis, a clinical study of.... 661
Pericranial sinus.... 75
Perinæorrhaphy 801
Perinæum, lacerations of....278, 472
  rupture of, during labor....1146
Perineal prostatectomy.... 180
Perinephritis in children.... 329
Peritonæum, immunization of.... 184
Peritonitis 467
  acute, earlier operations in.... 802
  appendicular 274
  diffuse, treatment of.... 977
  tuberculous 599, 814
Perspiration, a dynamometer for measuring 232
Peters, William H. Superannuated trolley cars for consumptives..1111
Pfarre, Edward R. Nocturnal incontinence of urine.... 63
Pharmacist of the future.... 937
Pharmacists who prescribe, campaign against 478
Pharmacy law of Virginia.... 461
Pharmacopœia, the U. S.... 558
Phenylhydrazine, a clinical test for sugar in urine.... 326
Philippines, medical practice in.... 888
  parasitology in the.... 743
Phipps Memorial Home for Consumptives, Denver.... 365
Phlebitis and varix.... 463
  gonorrhœal 177
  paradoxical 273
Phosphoric acid, therapeutical uses of. 703
Phosphorus, organic, physiological and therapeutical experiences with..1273
Physical deterioration.... 812
  signs in children.... 331
  remedies, success of, in treatment of tuberculosis.... 372
Physician, relation of, to the bureau of health 1014, 1049
  the many-sided.... 792
Physicians and manufacturers of proprietary preparations.... 69
  contributions to general literature by 334
  professional relations of.... 549

PAGE.

- Physostigmine after laparotomy 177
- Piles, clamp and cautery operation for. 466
- Pilocarpine and muscarine, action of, on the heart 758
- Piroplasmosis, human 614
- Placenta prævia centralis 259
  - elevation of the hips in treatment of 548
- Plague, Egyptian cattle 225
- Plagues, three, of the twentieth century 1005
- Plaster of paris, experiments to determine whether it expands or contracts in setting 374
- Plastic flaps, movable 368
- Pleural cavity, milky effusion in 995
  - fluids, cytodiagnosis of 804
    - quantitative estimation of 1274
- Pleurisies, changes in intercostals in 948
- Pleurisy, salutary 551
- Pneumococcus infection 521
  - polyarthritis due to the 417
- Pneumonia commission 269, 843, 939, 1038
  - crisis of 128
  - diagnosis and treatment of 765
  - in adults, treatment of 1190
  - incubation of 280
  - inflammation of parotid gland in 321
  - lobar 39, 516
    - in infancy 1103, 1284
    - strophanthus in the treatment of 998
    - treated by toxic doses of digitalis 802
  - meteorism in 422
  - serum treatment of 1188
  - treatment of 1093
- Pneumopericardium 80
- Poison squad, further adventures of 362
  - toad 227
- Poisoning and disease, difference in effects of 1185
  - aniline, a case of 808
  - belladonna 514
  - blood 77
  - boric acid 611, 1130
  - by Jamestown weed 958
  - by liquid shoe blacking 706
  - by wood alcohol 747, 900
  - carbolic acid 693
  - carbolic acid, antidote for 983
  - illuminating gas 129, 404, 568
  - lesions of formalin 416
  - linotype machine as a source of 168
  - mushroom 656
  - mussel 521
  - ptomaine, paralysis due to 659
  - rhus, death from 219
  - satin wood 132
  - turpentine 79
  - with explosive gelatin 995
- Poisons, bacterial 611
  - snake 279
- Poliomyelitis, acute anterior 187
- Polozker, I. L. Postmortem examinations for medicolegal purposes 531
- Polyarthritis due to the pneumococcus. 417
- Polypus, nasal, origin of 1046
- Pooley, Thomas R. Fibroma of mastoid, auricle and auditory canal 1024
- Porro operation 502
- Portal vein, surgery of the 658
- Posey, William Campbell, and Langdon, H. Maxwell. Non-operative treatment of squint: The Worth amblyoscope 1065, 1118
- Postmortem examinations for medicolegal purposes 531
- Post Office Department, professional influence on 29
- Potassium bichromate in frambœsia 65
  - permanganate as an antidote to snake venom 26
- Pott's disease 229
  - syphilitic 320
  - treatment of 1140
  - treatment of, in dispensary practice 1121
- Pow-wow doctor discovered 411
- Pozzi, Professor, address by 993
- Practitioner, illegal, fined 71
- Pregnancy, abdominal 1280
  - after ovariotomy 40
  - albuminuria of 860
  - and successful parturition in a patient with carcinoma of the cervix 1076
  - and uterine fibroid 502
  - bilateral ovariotomy in 464
  - diagnosis in the first half of 898
  - ectopic 133
  - extrauterine 133, 229, 1141
  - hydatid, eclampsia in 704
  - leucocytosis of 1287
  - melancholia during 272
  - nervous reflexes in 416
  - neuritis in 716
  - ovarian 377
  - pyelitis complicating 181, 426
  - secondary abdominal 910
  - striæ atrophicæ of 789

PAGE.

- Pregnancy, termination of 135
  - tubal 662, 1140
  - vomiting in 416, 1281
- Precordial refrigeration 603
- Prescription writing, modern, the trend of 1049
- Preservative of meat, sodium sulphite as a 888
  - for milk, a safe 382
- Preservatives and adulterants, influence of 941
  - in food 173
- Priapism, idiopathic 69
- Price, Nathaniel G. Financial status of medical career 210
- Proctoscopy 274
- Professional influence on the Post Office Department 29
  - responsibility in accident cases involving litigation 631
- Prolapse of the funis, the treatment of. 717
  - of rectum, treatment of 1187
  - of ovary, an operation for the cure of 805
  - of umbilical cord 998
- Proprietary medicines 696
  - relation of the physician to 1140
- Prostate gland, enlarged, operative treatment for 999
  - enucleation of 326
  - senile hypertrophy of 292
- Prostatectomy, perineal 78, 180, 756
  - the technique of 249
- Prostatic hypertrophy 79, 180, 949, 1198
- Prostatitis, ætiology and treatment of. 853
  - chronic 998
- Prostitution, the causes which lead to. 814
- Proteid chemistry, new features in 994
- Protoplasm, reaction of, in relation to chemotaxis 82
- Prurigo 276
- Pruritus 272
  - lotion for 358, 503
  - treatment of 369
  - ani 443
    - treatment of 813, 904
  - pudendi 503
- Pryor, Dr. William Rice, resolutions on the death of 1038, 1229
- Pseudodiphtheritic angina 608
- Pseudoleucæmia (lymphosarcoma) 615
- Pseudophlebitis 1280
- Pseudotuberculosis 1274
- Psychic force 232
- Psychoses, minor or borderline 232
  - of thyreoid origin 801
  - subcutaneous injections of saline solutions in the treatment of 887
- Ptosis of the abdominal aorta 752
  - of the abdominal viscera 507
- Public Health and Marine Hospital Service 1266
  - examination for admission 73
  - health science, the relation of, to other sciences 760
- Puerperal convulsions, thyreoid treatment of 408
  - eclampsia treated by renal decapsulation 426
  - fever 935
    - prophylaxis of 1137
  - infection 20, 225, 468, 1273
  - sepsis, corrosive sublimate injections in 802
    - treatment of 324
- Puerperium, fever of 20, 368
  - leucocytosis of 1287
- Pulmonary abscess, treatment of 178
  - commission subjected to civil service rules 1036
  - congestion 1278
  - disease and the vagus reflex 437
- Pulse, slow, and hysterotraumatism 415
- Pure food act constitutional 1086
    - commission 845, 941
    - law, violations of 556
    - movement 317
- Purpura hæmorrhagica, a retropharyngeal blood cyst in a case of 808
  - Henoch's 1142
- Pus, the protective action of 35
- Putnam, James J., and Waterman, George A. Unusual forms of infectious disease of the central nervous system 832
- Pyæmia, pneumococcic, a case of 855
- Pyelitis complicating pregnancy 181, 426
- Pyloric stenosis 466
  - stenosis, congenital 132
- Pylorus, recurrent spasm of 898
- Pyopneumothorax 951
- Pyosalpinx 711
- Pyothorax, new operation for 323
- Pyrenol, therapeutic value of 994

- QUACK, the half-hearted 267
  - Quacks in New York 891
- Questionable detail work 69
- Quinic acid, action of, upon calcium metabolism 994

PAGE.

- Quinine, jaundice, hæmaturia and fever following the administration of. 76
- Quintuplets, a case of the birth of 776

- RABIES, Negri's bodies in ætiology and diagnosis of 371, 1234
  - Pasteur method in the treatment of 897
  - rapid diagnosis of 1093
- Race suicide 130
- Racial characteristics 278
- Radiations, spark gap 1141
- Radioactivity, Finsen light, and Röntgen rays 372
  - of mineral waters 225
  - of waters of the Hot Springs of Arkansas 790
- Radiotherapeutic technics, variations in 1094
- Radiotherapy 1011
  - in eye diseases 287
  - in therapeutics 670
  - in uterine fibromata 838
  - of neuralgia 115
- Radium, action of, upon hæmolytic serum 127
  - and parthenogenesis 957
  - and thorium, therapeutic value of. 40
  - and vision 622
  - as an analgetic 314
  - bromide dutiable 604
  - emanations 369
  - Finsen light, and x rays 325
  - observations on 277
  - physiological action of 367
  - subtle power of 466, 570
  - therapy and Röntgen rays 1002
- Radius, fractures of 947
- Ranney, Ambrose L. Epilepsy cured without drugs 1057
- Reaction, Ehrlich's diazo 609
- Reber, Wendell. A clinical and statistical study of convergent strabismus 872
- Rectal prolapse, paraffin injection for 615
- Rectum, injury to, in gynæcological examinations 135
  - torsion of, in the treatment of prolapse 1187
- Reduction, bloodless, fatty embolism following 993
- Reed, Charles A. L. Pregnancy and successful parturition in a patient with advanced carcinoma of cervix 1076
  - Surgical cure of chronic dyspepsia 1018
- Reflex, Babinski's 226
  - the pudic 312
  - the vagus, and pulmonary disease. 437
- Refractive errors, uncorrected 137
- Renal calculi, birch leaves as a solvent of 550
  - calculus, gigantic, a case of 902
    - Röntgen ray, diagnosis of 191
    - two cases of, in which the x ray failed to detect their presence 807
  - decapsulation 320, 572
    - experimental 180
    - puerperal eclampsia treated by 426
    - surgical treatment of 950
  - disease, molecular concentration of the blood in 898
  - hæmaturia 1278
  - incision, elective line of 1113
  - inflammations 367
  - insufficiency 355
  - obstruction 612
- Resection of cæcum, the technics of 996
  - nasal septum, plastic operations for 997
  - uterovarian sympathetic nerve plexus 899
- Respiratory education in the treatment of lung and heart disorders 681
  - insufficiency 272, 513
  - reeducation 415
  - tract, operations on, producing reflex apnœa and cardiac inhibition 852
- Resuscitation from apparent drowning. 453
- Retroflexion of the uterus 283
- Rheumatism, acute, articular, and influenza 496
  - acute, remedy for 167
  - chronic 124, 503
  - chronic articular, treated by Bier's method of congestive hyperæmia 751
  - five kinds of 1190
  - liniment for 1175
  - rare forms of 1274
  - serum treatment of 464
  - unusual forms and favorite localizations of 805
- Rheumatoid arthritis 326, 468
  - diseases, diagnosis and treatment of 1091
- Rhus poisoning 219
- Richards, George A. The nasal saw 403
- Richardson, Charles H. Infectious nature of malignant new growths 389

PAGE.

Richmeyer, Dr. Grant H., resolutions on the death of... 30
Rigg's desease and its treatment.... 198
Roberts, John B. Professional responsibility in accident cases involving litigation... 631
Robinson, Beverley. Proprietary medicines... 696
Robinson, Byron. Elective line of renal incision...1113
Rockefeller Institute for Medical Research...318, 509
Roe, John O. Plastic removal of nasal obstructions... 193
Röntgen rays, diagnosis of renal calculus... 191
  and radium therapy...1002
  Finsen light and radioactivity.... 372
  in leucæmia...78, 752
  in malignant disease of the breast.1142
  in surgery... 34
  in treatment of fractures... 769
  in treatment of tuberculosis.....1238
  in treatment of tuberculosis of the joints... 395
Rose, Achilles. Dry carbonic acid gas bath... 57
  The zerodone...1148
Rotary vertigo, the suppression of.... 297
Rubber gloves, disinfection of...1224
Rubber gloves, a method of dispensing with... 612
Rucker, W. C. Treatment of varicose veins of the leg...1079
Rudis-Jicinsky, J. Röntgen rays in the treatment of tuberculosis of the joints... 395
Ruggles, E. Wood. The management of genital sores... 337

SÆPTUM, nasal, resection of the... 997
  Sachs, B. Acute myelitis... 583
Sacral spina bifida... 465
Salmon, Thomas W. Incontinence of urine... 110
Salpingitis, a clinical and pathological study of...1090
Sanatorium, Government, for consumptive seamen... 29
  Agnes Memorial, Denver... 176
  Dermady, for consumptives... 990
  Punton, Kansas City, Mo., additions to... 271
  tuberculosis, Binghamton, N. Y., protest against... 412
Sanitary inspectors for New Jersey... 319
  washtubs for Buffalo... 942
Sanitation, camp... 424
Sarcoma and cancer, the correlations of, with other tumors... 743
  bone cysts as a type of... 803
  of bones, traumatism in the ætiology of... 169
  of clavicle... 228
  Röntgen ray in treatment of..... 949
  spindle cell, of foot... 567
Sarcomata, multiple, of subcutaneous tissue... 385
Satinwood poisoning... 132
Sawers, F. H. Parasitical associations. 835
Scapula, abnormally high... 660
Scarlet fever, cause of... 659
  clinical notes on an epidemic of.. 802
  complications of...1160
  in New York...1153
  Moser serum, in the treatment of. 901
  temperature curve of... 79
  treatment of... 887
Schwyzer, Fritz. The pathogenesis of the aneurysmata of the aorta.. 241
  Pathology of the elastic tissue of the aorta... 49
Schools, nurses' training... 66
School, the public, and tuberculosis... 433
Schott method of treating cardiovascular diseases...1098
Sciatica, Kernig's sign in... 76
  objective sensation in... 849
Sclerosis, arterial... 758
  cerebral, of arterial origin...1234
  insular... 278
Scurvy, ætiology of... 81
  epidemic of, in Russia... 754
  infantile...329, 468
Seamen, consumptive, Government sanatorium for... 29
Seasickness, the prevention and cure of 297
Seborrhœa... 273
Seborrhœoids... 368
Secretions, internal...961, 1025
Seibert, A. Scarlet fever in New York.1153
Semon, Sir Felix, American tour of... 315
Senility and infantilism, associated... 359
Sepsis, oral, as a cause of disease.....1144
  thymol injections in... 753
  treated with serum... 948
Septic amygdalitis, a case of... 903
Septicæmia due to tetragenes... 226
  otitic...1092
  pure...1246
Serum, antistreptococcus, in treatment of endocarditis... 279
  hæmolytic, action of radium upon. 127
  hepatolytic, action upon organs of 370
  Maragliano's, as a cure of tuberculosis...1089
  Marmorek's, in the treatment of tuberculosis...1090
  Moser, in the treatment of scarlet fever... 901
  therapy for tuberculous glands...1089
    present state of...856, 1142
Sesamoid bone in the gastrocnemius... 946
Sewer gas as a vehicle of pathogenic germs... 698
Sexual errors in young children... 695
Sheldon, John G. Crushing injuries of joints... 162
Shelmerdine, E. Kirkland. Long and short methods of calculating modified milks... 971
  Modified milk mixtures... 587
Shock and blood pressure in traumatic surgery...1242
  nervous... 466
  pathology of... 466
  strychnine in... 577
  surgical...1220
  surgical, extract of suprarenal gland in...1242
Shoemaker, John V. Hodgkin's disease 913
Shoulder joint, disability of... 930
Shrady, Dr. George, retirement of..... 311
Sickness, neglected important causes of 222
  sleeping... 575
Sigmoid, surgical diseases of...1257
Sigmoiditis... 946
  due to oxyurides... 754
Sigmoidoscope, the, in diagnosis of tumors... 131
Simmons, Frederick A. Status lymphaticus and death following chloroform anæsthesia... 405
Simon, S. Pulmonary tuberculosis.... 155
Simon, the late Sir John... 219
Sinclair, D. A. Syphilis treated by injections of mercury salicylate.. 778
Sinuses, accessory, chronic disease of.. 181
Sinusitis due to eyestrain... 613
Skiagraphy, stereoscopic, the value of, 858, 1249
Skin and glandular diseases, treatment of by x ray... 761
  diseases, Finsen light, Röntgen rays, and high frequency electric currents in treatment of.....1044
  in connection with errors of metabolism...1092
    progress in the treatment of. 761
  grafting, using amputated extremities as a supply of skin...1223
  tuberculosis of the... 80
  tuberculous affections of the..... 658
Sleeping sickness... 375
Sleepless, the self-treatment of the.... 839
Slocum, George. Improvised instruments and appliances... 260
Smallpox, cause of... 659
  and vaccination... 72
  hæmorrhagic... 521
  in Zion City... 366
  red light treatment of...375, 711, 1047, 1192
Smiling as a therapeutical agent..... 649
Smith, Oliver C. Accessory thyreoid of the posterior third of the tongue 818
Snake bite, serum therapy of...1047
  venom, action of, on nervous system... 519
  venom, potassium permanganate as an antidote to... 26
SOCIETIES:
  American Microscopical... 462
    of Clinical Surgery... 846
    Ontological... 174
    Röntgen Ray... 413
    Therapeutic... 318
  Binghamton, for the Prevention of Tuberculosis... 174
  Chemical Industry... 606
  Deutsche Medizinische Gesellschaft der Stadt New York... 699
  Eastern Medical....650, 747, 843, 940
  Medical Jurisprudence, of Philadelphia... 845
  Medical, of the Southern Dispensary... 1086
  Medical, of the State of New York, 460, 941
  Medical, of the State of Pennsylvania... 511
  Medical, of Virginia... 654
  Missouri Valley Medical... 221
  Neurological, of Brooklyn... 118
  New York State Sanitary Officers..1233
  Normal and Pathological Physiology...942, 1181
  Obstetrical, of Philadelphia...280, 905, 953, 1001, 1146
  New York, open letter from...1087
  Pacific, of Railway Surgeons..... 461

PAGE.

SOCIETIES:
  Pædiatric, Philadelphia...1229
  Pathological, Philadelphia....797, 894, 1182
  Pennsylvania State Dental... 172
  Philadelphia County Medical..606, 748, 941, 1182
  Société Internationale de Chirurgie... 1135
SOCIETIES, PROCEEDINGS OF:
  American Association of Obstetricians and Gynæcologists... 809
  American Gynæcological,.....376, 426, 472
  International Congress of Arts and Sciences...667, 760, 1282
  Medical Society of the State of Pennsylvania...713, 1002, 1242
  Obstetrical Society of Philadelphia...1193
  Philadelphia County Medical Society...857, 1048, 1098
Sodium chloride, effects of... 265
  oleate in the treatment of cholelithiasis... 117
    the dose of... 314
  salicylate in intravenous injections... 65
  sulphite as a food preservative, 845, 888
Sores, genital, the management of.... 337
Souwers, George F. Rigg's disease.... 198
  Venesection...1163
Specialism, its evils and the remedy... 761
Specifics and specfic methods in the treatment of pulmonary tuberculosis... 155
Sphincter ani, dilatation of the... 519
Sphygmomanometry, radial... 273
Spina bifida, sacral... 465
Spinal caries, modern methods for combating deformity in...1242
Spinal cord, arteriosclerosis of... 515
    tumor of the... 707
  motor areas... 463
Spine, lateral curvature of the... 759
  osteoarthritis of... 1091
  tender spots on the... 615
Spitters of the elevated railway... 507
Spleen, diseases of... 39
Splenic anæmia, chronic... 441
  of infancy...1241
Splenomedullary leucæmia... 950
Splenomegaly, accessory spleens, splenectomy... 572
Splenohepatic fibrosis... 323
Splint, a new interdental... 572
Spondylitis deformans...387, 1236
Sprain, massage in the treatment of..1044
Squint, the non-operative treatment of.1065
Stagnin, a new hæmostatic... 75
Stalberg, Samuel. Nocturnal incontinence of urine... 62
Stammering, manuscript... 117
Staphylolysin, investigations on... 898
Static foot error... 420
Statistics, medical, international military...1127
Status epilepticus, the treatment of... 498
  lymphaticus and death following chloroform anæsthesia... 405
Steinberger, Dr. Victor, resolutions on the death of... 651
Stenosis, pyloric...132, 466
  tuberculous, of the intestine..... 675
Sterility, use of stem pessary for..... 134
Sterilization of the hands...40, 718
Sterilizer, an electric... 368
Sternberg, Joseph D. Technique in general anæsthesia... 300
Stevens, Rollin H. The Finsen light treatment... 344
Stillborn children, rigor mortis in..... 758
Stomach and pancreas, gunshot wound of... 565
  bacteria of the...1043
  benign diseases of, operations for. 322
  blood in the contents of... 564
  cancer of the...278, 370, 901
  dilatation of...324, 757
  diseases of, relation of to affections of mouth, nose and throat.1173
  disorders, carbohydrates as ætiological factors in... 16
  endofaradaisation of... 366
  gunshot wounds of the... 660
  hour glass deformity of...1277
  insufficient motility of... 545
  medication... 454
  metaplasia in the... 804
  motility and secretion of...1185
  operations on the... 517
  plasteine reaction in the... 753
  a sequestered bit of... 695
  transillumination of the... 182
  ulcer of...113, 949
  ulcer of, and specific gastrotoxic serum... 791
Stomatitis, gonorrhœal... 224
  ulcerative, and angina... 34
Stover, G. H. X ray therapeutics..... 6

PAGE.

- Strabismus, convergent, a clinical and statistical study of............ 872
- Strangulation of testicle............ 131
- Street, Lionel A. B. Chronic malarial cachexia 917
- Stremmel, S. C. When to operate for appendicitis 737
- Stricture, electrolysis in............ 125
  - œsophageal 368
    - gastrostomy in............ 571
    - osteopathic gastrotomy for... 901
  - urethral, treatment of......130, 1188
- Stuart, Anna M. Immunity......... 598

SUBSCRIBERS' DISCUSSIONS:

- Improvised implements and appliances 260
- Resuscitation from apparent drowning 453
- Treatment of insomnia.......... 934
- Treatment of nocturnal incontinence of urine............62, 109
- Treatment of varicose veins of the leg 1031, 1078

- Substitution, inadequacy of existing protection against............1128
- Subway, air of.................... 939
  - air of, Professor Chandler's examination into the quality of..1036
  - one real danger of............1036
  - roadbed in....................1179
  - ventilation of................. 937
- Sugar, color reactions of........... 994
- Sunstroke 25, 119
- Supertuberculization 415
- Suppuration, iodine treatment of..... 805
  - of the rectus abdominis muscle in typhoid fever................. 275
- Surgeon's heritage, the............. 179
- Surgery, evolution of............... 570
  - fifty years ago................. 177
  - genitourinary 277
  - in East Africa.................. 357
  - intraabdominal 1000
  - modern 178
  - of pancreas..................... 181
  - on old men...................... 517
  - Röntgen rays in................. 34
- Surgical dressings.................... 40
- Sutures, emergency, needle of the Pravaz syringe for............ 789
  - new material for...............1043
- Symes' amputation, modified.......... 34
- Syphilide, pustulopapular, a case of... 617
- Syphilides, secondary mucous......... 503
- Syphilis and other skin diseases, Hutchinson's opinions on............ 897
  - angina of, and diphtheritic angina, diagnosis between.............1043
  - contracted by coitus............. 694
  - cutaneous 897
  - diagnosis of.................... 273
  - hereditary 897
  - icterus 662
  - in nose and pharynx............ 160
  - infantile 310, 1143
  - insontium 420
  - of cerebellum................... 851
  - of heart........................1236
  - prescription for................ 263
  - secondary, with severe eye involvement 897
  - serum therapy of...............1201
  - transmission of, by barbers......1239
  - treated by injections of mercury salicylate 778
  - treatment of................373, 731
- Syphilitic chimpanzee, inoculation from a 513
  - leucoderma 897
  - manifestations in the nose and pharynx 160
  - Pott's disease.................. 320
  - reinfection 273
- Swedish movements, treatment by.... 849

- TACHYCARDIA and its relation to injuries 1142
  - paroxysmal 279
- Tænia 1247
- Tall, development of...............1144
- Talalgia and its surgical treatment... 704
- Talma's operation for cirrhosis of the liver 352
- Talmey, Max. Influenza and articular rheumatism 496
- Tapeworm, remedy for............... 406
- Tattooing among criminals........... 840
- Taylor, Arthur N. Birth certificates in New York.................... 361
    - Inadequacy of existing protection against substitution.1128
  - Henry Ling. Results of mechanical treatment of Pott's disease in dispensary practice.........1121
  - J. Madison. Respiratory education in the treatment of lung and heart disorders........... 681
- Telephone directory, the new business.. 939
- Temperament, the genesis of.......... 839
- Tenement house mortality of New York. 311
- Tenontoplasty, the present condition of 487, 535, 591, 629, 684
- Testicle, strangulation of the......... 131
- Testicles, tuberculous................ 182
- Tetanus 275, 372
  - acute, treated by intraneural injections of antitoxine.........79, 806
  - following labor..................1239
  - spontaneous 764
  - traumatic, treated by Bacelli's method 802
    - treatment of................1190
  - treatment of, by bleeding........ 887
  - with paresis of eye muscles......1234
- Thapsia garganica, effect of the use of.1084
- Theobromine as a hypnotic.......... 550
- Therapeutics, advances in............ 568
  - mental 420
  - x ray............................ 6
- Therapy, photo, radio, and high frequency 276
  - serum, of ozæna................. 565
  - suggestive 554
- Thermometer, the clinical....772, 790, 936
- Thermometers, inaccurate clinical.....1268
- Thiosinamine in contractures........ 117
  - in gastrointestinal disease........ 224
- Thomas, T. Turner. Multiple sarcomata of the subcutaneous tissue 385
- Thomson, William Hanna. Internal secretions 961, 1025
- Thoracic duct, dilatation of.......... 564
- Thorium and radium, therapeutic value of 40
- Thrombophlebitis, mesenteric.........1137
- Thrombosis, sigmoid sinus........... 641
  - venous, in typhoid fever........ 707
- Thrush, remedy for................. 694
- Thymus, cadaveric changes in........ 947
- Thyreoid, accessory, on the posterior third of the tongue........... 818
  - extract in nervous reflexes in pregnancy 416
  - gland, role of, in exophthalmic goître 1253
  - secretion 78
  - tissue, aberrant, and its relation to intratracheal growths....... 289
  - treatment of puerperal convulsions. 408
- Tic 277
- Tick fever.........................1192
- Tinea tonsurans, treatment of........1080
- Toads, poisonous substance in the skin of 227
- Toenail, ingrowing................. 214
- Tomatoes as a food.................1080
- Tongue, accessory thyreoid tumor of.. 818
  - the prehensile.................. 504
- Tonsil, bone and cartilage in the...... 663
  - the lingual..................... 516
- Tonsils, primary ulcerations of...... 230
- Toothache, treatment of............. 113
- Toronto University athletes.......... 511
- Touro Infirmary, New Orleans........ 511
- Toxæmia, gastrointestinal............1286
- Trachea, rupture of, during labor.....1146
- Tracheal test for the asthmatic lung.. 37
- Trachoma and some diseases resembling it 538
  - crusade against................. 556
  - medical treatment of............1140
  - non-operative treatment of...... 613
  - relation of lymph follicles to.....1096
  - treated by x rays............... 178
- Training schools, nurses'............ 66
- Transudates and exudates, the examination of....................... 997
- Traumatism, hypernephroma as a result of 451
  - in ætiology of sarcoma of the bones 169
- Tremaine, Annie M. Status epilepticus. 498
- Trematodes, two new................ 710
- Trolley cars for consumptives........1111
- Trypanosoma in man................ 124
- Trypanosome, introcorpuscular stage of development in the............ 808
- Trypanosomes, culture of............ 327
- Trypanosomiasis 517, 1192, 1241
- Tryptophan reaction in cancer of the stomach 370
- Tset-se-fly disease.................. 184
- Tubercle bacillus.................... 567
    - morphology of............. 753
  - of the chorioid.................1093
- Tuberculin, the diagnostic value of... 899
  - the use of...................... 759
- Tuberculosis............38, 612, 614, 1280
  - a curable disease................1053
  - and cancer, association of........1239
  - and chlorosis................... 608
  - and the Jew.................... 325
  - and pseudotuberculosis.......... 321
  - and Werlhof's disease........... 418
  - calcareous treatment in.......... 76
  - cause of emaciation in.......... 805
  - cured with Maragliano's serum....1089
  - cutaneous, the treatment of...... 899
  - dangers of the microscope in the diagnosis of...................1189
  - dispensary, Cleveland........... 725
- Tuberculosis dispensary, the modern... 228
    - Washington, success of......1018
  - early diagnosis of.............. 854
  - early physical signs of.......... 804
  - economics of................... 686
  - flies as disseminators of........1237
  - genital, in women............801, 849
  - hæmoantitoxine in the treatment of 1042
  - healed cavities, and non-tuberculous fibrosis, differential diagnosis between................ 103
  - home treatment of....40, 54, 277, 663
  - how may the public school be helpful in the prevention of........ 433
  - human and bovine.............. 856
  - hyperglobulia of................ 563
  - immunization against...........1186
  - in the country.................. 561
  - incipient pulmonary, diagnosis of.1188
  - infantile 759
  - intestinal, in children..........1186
  - liver in........................ 321
  - Marmorek's antituberculous serum in the treatment of......1090, 1151
  - milk a factor in the spread of.... 304
  - muscular 34
  - new treatment of............... 358
  - of abdominal lymph glands....... 662
  - of cæcum and appendix.......... 947
  - of female genital organs.........1185
  - of joints, Röntgen rays in the treatment of.................. 395
  - of kidney, nephrectomy for..378, 998
  - of larynx.......................1238
  - of larynx and the prostate...... 516
  - of middle ear...................1092
  - of salivary glands.............. 609
  - of skin......................... 80
  - origin of the hyperglobulia of... 563
  - papillomatous cutaneous, of the anal region..................1138
  - patients, segregation of.......... 518
  - pulmonary 401
    - new treatment of........... 358
    - physical remedies in........ 372
    - relations between human and bovine 798
    - sanatorium treatment of.....1140
    - should it be treated at home..1074
  - serum diagnosis of.............1188
  - specific therapy of, by means of vaccination 995
  - specific treatment for.......155, 1092
  - surgical, in the abdominal cavity. 814
    - tincture of iodine in........ 214
  - treated with high frequency currents 1199
  - treatment of................... 566
  - treatment of, by endotracheal medication 719
  - treatment of, by internal disinfection 1186
  - vaccination against..........244, 951
  - Von Behring's theory of......... 562
  - x ray in treatment of............1238
- Tuberculous affections of the skin.... 658
  - angina 113
  - bacteriæmia, the study of........ 800
  - caseation 177
  - infection, the fly as a carrier of.. 643
    - an unsuspected source of.... 891
  - otitis 226
  - patients, advice to............. 30
  - peritonitis 599
  - pleural effusion, treatment of.... 904
  - stenosis of the intestine.......... 657
  - testicles 182
- Tuck, the late Dr. Henry........509, 1037
- Tumor, complex, of neck............1089
  - diagnosis, microscopical.......... 183
  - endotracheal 515
- Tumors, accessory thyreoid, of the tongue 818
  - correlation of, with cancer and sarcoma 743
  - gastric 368
  - hæmorrhoidal, treatment of...... 851
  - malignant, inoculability of....... 851
    - ætiology of................ 708
    - of the lung................1093
    - of the maxillary sinus...... 370
  - of bladder...................... 38
  - of brain....................233, 668
  - of breast....................... 324
  - of frontal lobe.................. 233
  - of spinal cord.................. 707
  - of uterus, fibroid............... 474
  - papillary, of the ovaries........ 523
  - value of sigmoidoscope in diagnosis of 131
- Tunnel, Park Avenue, ventilation of.. 939
- Turpentine poisoning............... 79
- Typhoid bacilli, agglutination of...... 367
    - in the blood............... 655
    - non-flagellate 184
  - bacillus, Endo's method for distinguishing from colon bacillus.... 126
  - fever and water filtration....31, 119
    - abortive 756
    - afebrile 1240

PAGE.
Typhoid fever, complications and sequelæ of..............611, 1048
  copper as a preventive of.... 458
  diagnosis of..........124, 1274
  immobilizing the intestine in. 838
  indicanuria complicating..... 761
  inoculation in..............1046
  intestinal perforation in.859, 1243
  mild 1279
  nervous sequelæ of.......... 100
  opotherapy in..............1137
  outbreak in Bedford Park... 458
  perforation in...........129, 184
  polyuria in............614, 1045
  prevention of.............. 455
  rupture of muscles in....... 792
  suppuration of rectus abdominis muscle in........ 275
  therapeutical fasting in the treatment of............. 998
  treatment of..130, 229, 806, 1191
  urine as a disseminator of... 169
  venous thrombosis in........ 707
  with chills................. 901
Typhus fever, cause of............. 659

ULCER, duodenal................. 522
  gastric 520, 566, 567
    chronic 709
    in children................ 804
    perforated 39
    statistical study of.......... 755
    with appendicitis.......... 132
  of bladder, cicatrization of....... 997
  of stomach and duodenum....663, 949
    and pylorospasm, surgical aid in 1235
    enemata in................ 113
    and a specific gastrotoxic serum 791
  uræmic, of the duodenum........ 408
Ullman, Julius. Enuresis and its treatment 1261
Umbilical cord, when to ligate the.... 478
  vein, persistent, in an adult...... 657
Uncinariasis 59, 465, 708, 1045
Unhealthfulness of noise............ 60
University of Pennsylvania, changes at 173
    dental course at the........ 557
    medical department, new arrangement of faculty...... 652
    physical education at........1229
    report of the eye department of 797
  of Maryland, Nu Sigma Nu Fraternity of...................... 836
Unvaccinated pupils, right of schools to exclude.................. 843
Uræmia, urea, and urea tests........ 541
  without nephritis................1098
Uræmic psychosis.................. 273
Uranium as a drug................. 600
Urea, retention of.................. 369
  tests 541
Ureter, hernia of.................. 274
  physiology of.................. 78
Ureterolithotomy 377
Ureters, transplantation of...........1237
Urethra, rupture of posterior........ 421
  surgery of female...........374, 379
Urethritis, chronic................. 228
Urethrotomy, internal............... 516
Uric acid, pathological increase of.... 38
Urinary antihæmolysis.............. 82
  meatus, hypertrophies and inflammations about the........... 379
Urine analysis..................... 82
  as a disseminator of typhoid fever. 169
  elimination of ammonia in...... 76
  estimation of sugar in the........ 515
  intravesical separation of.....183, 807
  Kühne's peptone in the.......... 370
  nocturnal incontinence of......62, 109
  typhoid bacillus in............. 609
Urology, a new journal of........... 170
Uterine contraction................. 82
  fibromata, radiotherapy in....... 838
  hæmorrhages, styptal in......... 658
  segment, lower, role of, in relation to labor pains................ 75
Uteroovarian sympathetic nerve plexus, resection of................. 899
Uterus, action of lead upon.......... 994
  adherent, as a complication of labor 135

PAGE.
Uterus, bilocular, and bifid vagina.... 133
  cancer of, radical operations for.. 658
  causes of retention of dead ovum in 1187
  dilatation and curettement of.... 854
  displacement of................. 225
  fibroid tumors of...........474, 567
  fibroma, complicated by disorders of heart and kidneys..........1098
  implantation of human ovum in the 474
  infantile 134
  inversion of................565, 1094
  large fibroid of, complicating pregnancy 502
  malpositions of the............. 372
  perforations of, in sounding and curetting 659
  permeability of tubes to fluids injected into................. 898
  physiology of.................. 272
  retrodeviations of the........... 467
  retroflexion of the.............. 283
  retroversion of.................1094
Urohæmatin reaction, the........... 368

VACCINATION against tuberculosis. 951, 995
  and birth certificates in Brooklyn. 651
  and the law.................... 324
  certificates in Philadelphia...748, 1230
  general, a scheme to induce...... 867
  in the Philippines............... 486
  in tuberculosis................. 224
Vaccine 276
  question in Chicago............ 943
Vaccinia, cause of................. 659
Vagina, bifid...................... 133
  congenital absence of...........1044
  formation of new.............. 272
  anus 418
  sarcomata in childhood.......... 178
Vagus reflex and pulmonary disease.437, 458
Valvular disease, incipient........... 132
Van Wart, Roy M. Friedrich's ataxia.1263
Varicocele, an improvised method of operating for.................. 983
  Vince's operation for............1177
Varicose veins of the leg, treatment of. 1031, 1078
    paraffin injections for........1179
    results of operations for.... 999
Varioloid, cause of................. 659
Variolous ophthalmia, methylene blue in the treatment of............ 25
Varix and phlebitis................. 463
Vaughan, Paul Turner. Syphilitic manifestations in the nose and pharynx 160
Vegetarianism and disease of the vermiform appendix................1130
Venesection 1163
Ventilation, standards of............ 469
  of public places................ 170
  of Subway.................... 937
Version in labor................... 182
Vertex, occipitoposterior positions of the 129
Vessels, superficial femoral, ligature of. 994
Vertigo, rotary, the suppression of.... 297
Vibrations, sensitiveness to.......... 561
Vincent's angina.................. 230
Vincent, Thomas N. Delirium tremens. 923
Vision, alleged defects of, in school children 995
Visual acuity, comparative, of savages and civilized peoples..........1096
Vital statistics, fallacies of.......... 229
Vomiting, a remedy for.............. 789
Vulpius, Professor. Tenontoplasty.487, 535, 591, 629, 684
Vulvovaginitis in little girls..689, 740, 780, 823

WACHENHEIM, F. L. Uræmia, urea, and the urea tests........ 541
Warren, Stanley P. Management of rigid os in labor.............. 217
Warts, internal and external treatment of 505
  treatment of, by sunlight........ 742
Wassermann, Professor A. Theory and practice of immunity......644, 721
Water, copper as a purifying agent for 652, 1230
  drinking, alleged abuse of........1228

PAGE.
Waterman, George A., and Putnam, James J. Unusual forms of infectious disease of the central nervous system................. 832
Waters, mineral, radioactivity of..... 225
Webster, George W. Curricula of American medical colleges......145, 205
Weeds, enforcement of law against.... 318
Weigert, Professor Karl, death of....1084
Weight, reduction in................ 658
Wellcome physiological research laboratories, awards to..............1040
Welt-Kakels, Sara. Vulvovaginitis in little girls.......689, 740, 780, 823
Weirick, C., and Hartman, G. Skin grafting, using amputated extremities as a supply of skin...1223
Werder, X. O. Address in obstetrics.. 713
Werlhof's disease and tuberculosis.... 418
Wheaton, Clarence L. Pulmonary tuberculosis 401
White league of Pennsylvania........ 122
Whooping cough, cypress oil as a remedy for.......................1130
    diphtheria antitoxine in...... 789
    prevention of...............1279
    remedy for.............113, 1264
Why too much?.....................1081
Wight, J. Sherman. Regulation of the x ray tube.................... 209
Wiley, H. W. Methyl alcohol, its properties, uses, and abuses........1009
Wilkinson, Oscar. Headache in relation to diseases of the nose.... 636
Wille, C. W. A contribution to the surgery of nephritis........... 788
Williams, Dr. Bryan G., resolutions on the death of................ 70
Wilner, Anna S. Primary nasal diphtheria 881, 927, 969
Wireless telegraphy, physician summoned by...................... 747
Witmer, Evelyn. Incontinence of urine 111
Wood alcohol as a beverage.......... 842
    poisoning by............747, 900
Wood, William C. Uterine fibroid and pregnancy 502
Woman's duty toward the health of the nation 865
  sanitary league, annual meeting of.1230
Women doctors in Russia............ 606
  physicians, distinguished recruit to the ranks of................ 701
  physicians in the United States.. 319
Worth amblyoscope in the non-operative treatment of squint......1065, 1118
Wound, gunshot, of the stomach and the pancreas................. 565
Wounds caused by Japanese bullets.... 565
  closing of.....................1239
  infected, treatment of, with a phenol product.................1242
  from dum-dum bullets...........1278
  gunshot, of the abdomen......... 757
  gunshot, of the stomach.......... 660
  open treatment of.............. 464
  parietal gunshot................ 657
Wright, A. B. A vesical calculus of unusual size.................... 680
Wrightson, James T. A unique case of chorea 158

XANTHOMA 465
  x ray therapeutics.............. 6
  treatment of cancer............ 998
    of fibroma 1024
    of skin and glandular diseases. 761
    results of.................. 13
  tube, the...................... 209
  work, spark gaps in............ 323
  radium, and Finsen light........ 325
X rays in treatment of fibrosarcoma..1179
    of trachoma................ 178
  the therapeutical use of........ 857

YEAR, the closing................1265
  Yeast as a remedy, the growing appreciation of................. 360
    therapeutical action of...... 686
Yellow fever epidemic in Laredo, Tex.. 128
  conveyance of.................. 950

ZERODONE, the...................1148

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OCT

LIST OF ILLUSTRATIONS IN VOLUME LXXX

PAGE.
Aberrant Thyroid Tissue. Two Illustrations 289
Accessory Thyroid. Four Illustrations 818
Acute Myelitis. Two Illustrations 583
Arthritis Deformans of the Spine. One Illustration 387
Attachment to Bennett's Inhaler. Five Illustrations 1214
Bloodless Reduction of Congenital Hip Dislocation. Fourteen Illustrations 481
Brehmer, Hermann. Portrait 3
Brehmer Sanatorium at Goerbersdorf 5
Chronic Malarial Cachexia. Five Illustrations 917
Circumrectal Infections. Two Illustrations 1116
Clinical Observations in Scarlet Fever. Two Illustrations 1160
Clinical Thermometers. Four Illustrations 772
Device for the Application of Dry Hot Air. Two Illustrations 1244
Dupuytren's Contraction. Three Illustrations 673
Effects of the Dry Carbonic Acid Bath. Three Illustrations 58
Hodgkin's Disease. One Illustration 913
Hyrtl's Exsanguinated Renal Zone. Five Illustrations 1113
Idiopathic Epilepsy in Animals and Man. One Illustration 1110
Improved Forceps for the Removal of Adenoid Growths. One Illustration 858
Improvised Instruments and Appliances. Three Illustrations 261
Intracapsular Fracture at the Hip Joint. Two Illustrations 817
PAGE.
Lentigo. One Illustration 197
McMurtry, L. P., M. D. Portrait 2
Multiple Sarcomata. One Illustration 385
Obstructions and Cicatricial Contractions of the Nose. Six Illustrations 194
Origin of Vermiform Appendix. Eighteen Illustrations. 159
Plasmœba of Dengue. Five Illustrations 1207
Pott's Disease in Dispensary Practice. Twelve Illustrations 112
Quintuplets. Three Illustrations 776
Removal of Internal Hæmorrhoids by Excision. Five Illustrations 1212
Röntgen Rays in the Treatment of Fractures. Three Illustrations 769
Rotary Vertigo and Seasickness. One Illustration 297
Scarlet Fever in New York. Four Charts and One Map. 1153
Self-Retaining Catheter. Two Illustrations 1048
Serum Therapy of Syphilis. Two Illustrations 1201
Stereoscopic Skiagraphy. Three Illustrations 1249
Strychnine in Shock. Nine Illustrations 577
Tent Life for Consumptives. One Illustration 974
Thyroid Gland and Paralysis Agitans. Two Illustrations 1253
Traumatic Hæmatoma with Evanescent Aphasia and Hemiplegia. One Illustration 1171
Treatment of Squint. Three Illustrations 1065
Trolley Cars for Consumptives. Two Illustrations 1111
Ureteral Calculus. One Illustration 967
Vagus Reflex. One Illustration 437
Vesical Calculus. One Illustration 680

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